American Bar Association
Business Law Section
Committee on Derivatives and Futures Law

Winter Meeting 2018

Naples, Florida

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10:15 a.m. to 11:30 a.m.

NEW PRODUCTS / FINANCIAL TECHNOLOGY

Moderator for the Program:
Conrad G. Bahlke, Willkie Farr &Gallagher LLP

Speakers:
Geoffrey F. Aronow, Sidley Austin LLP
Debra W. Cook, Depository Trust & Clearing Corporation
Katherine Cooper, Law Office of Katherine Cooper
Isabelle Corbett, R3
David Lucking, Allen & Overy LLP
Brian D. Quintenz, Commissioner, U.S. Commodity Futures Trading Commission

ABA BUSINESS LAW SECTION DERIVATIVES & FUTURES LAW COMMITTEE 2018 WINTER MEETING

NEW PRODUCTS / FIN TECH PANEL

2017 Developments in US Regulation of Virtual Currencies and Related Products: Yin and Yang

January 5, 2018

By Katherine Cooper[1]

2017 was a year during which virtual currencies began to move into the mainstream financial markets. This generated significant legal and regulatory developments as U.S. regulators faced numerous novel products attempting to blend the old with the new. Although facing so many novel issues, the regulators' responses tell a familiar story of the struggle to balance the yin of customer protection with the yang of encouraging financial innovation and competition. Below is a summary of 2017 developments from the SEC, CFTC, OCC, FinCEN and the States.

I. Securities and Exchange Commission

a. Bitcoin Exchange-Traded Products

A number of sponsors of proposed Bitcoin exchange traded products had applications for approval pending before the Securities and Exchange Commission at the beginning of 2017. In March 2017, the SEC rejected a proposal backed by Tyler and Cameron Winklevoss.[2] The Bats Exchange proposed a rule amendment which would list the shares of the Winklevoss Bitcoin Trust for trading. Under the proposal:

> [t]he Trust would hold only bitcoins as an asset, and the bitcoins would be in the custody of, and secured by, the Trust's custodian, Gemini Trust Company LLC ("Custodian"), which is a limited-liability trust company chartered by the State of New York and supervised by the New York State Department of Financial Services ("NYSDFS").

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[2] *Self-Regulatory Organizations; Bats BZX Exchange, Inc.; Order Disapproving a Proposed Rule Change, as Modified by Amendments No. 1 and 2, to BZX Rule 14.11(e)(4), Commodity-Based Trust Shares, to List and Trade Shares Issued by the Winklevoss Bitcoin Trust* (SEC March 10, 2017) ("Winklevoss Order") available at: https://www.sec.gov/rules/sro/Batsbzx/2017/34-80206.pdf

> Gemini Trust Company is also an affiliate of Digital Asset Services LLC, the sponsor of the Trust ("Sponsor"). The Trust would issue and redeem the Shares only in "Baskets" of 100,000 Shares and only to Authorized Participants, and these transactions would be conducted "in-kind" for bitcoin only.[3]

The investment objective of the Trust was for its shares to track the price of bitcoins on the Gemini Exchange, which is an exchange operated by the Gemini Trust for the trading of bitcoin and other digital assets. The shares NAV was to be calculated daily based on the 4 pm auction conducted by the Gemini Exchange.[4]

The SEC received 59 comment letters on the proposed listing. Many emphasized the unregulated nature of the spot bitcoin markets and that the majority of daily cash trading volume occurred outside of the United States. Others mentioned the comparatively low volume of trading on the Gemini Exchange and the possibility of manipulation of prices there.[5] Bats' comment letter, on the other hand, asserted that

> bitcoin is resistant to manipulation, arguing that the increasing strength and resilience of the global bitcoin marketplace serve to reduce the likelihood of price manipulation and that arbitrage opportunities across globally diverse marketplaces allow market participants to ensure approximately equivalent pricing worldwide.[6]

Bats also argued that, because the CFTC had designated bitcoin as a commodity, the CFTC is "broadly responsible for the integrity" of U.S. bitcoin spot markets.[7]

After consideration of the proposed rule amendment and the numerous comment letters, the SEC rejected the listing of the shares of the Winkelvoss Bitcoin Trust on the Bats Exchange. It explained:

> Specifically, the Commission does not find that the proposed rule change is consistent with Section 6(b)(5) of the Exchange Act—which requires that the rules of a national securities exchange be designed, among other things, to prevent fraudulent and manipulative acts and practices and to protect investors and the public interest83—because the Commission believes that the significant markets for bitcoin are unregulated and that, therefore, the Exchange has not entered into, and would currently be unable to enter into, the type of surveillance-sharing agreement that helps address concerns about the potential for fraudulent or manipulative acts and practices in the market for the Shares.[8]

The SEC noted that the existence of surveillance sharing agreements had been requirement for any listed commodity-trust exchange traded product since the very first one the SEC approved in

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[3] Id. at 3.
[4] Id. at 4.
[5] Id. at 11.
[6] Id. at 9.
[7] Id.
[8] Id. at 19-20.

1995.[9] The SEC concluded that Bats' claims that the CFTC regulated the US spot bitcoin market were overblown. The handful of bitcoin-related enforcement actions brought by the CFTC do not represent "a regulatory framework for providing oversight and deterring market manipulation currently exists for the bitcoin spot market."[10] It noted that the CFTC does not "set standards for, approve the rules of, examine, or otherwise regulate bitcoin spot markets" in the US such as the Gemini Exchange.[11]

Although the SEC acknowledged that the Gemini Exchange was regulated by the NYSDFS, it observed that the NYSDFS's regulations do not require virtual currency businesses registered with it to have the kinds of safeguards national securities exchanges are mandated to have to which are

> designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in regulating, clearing, settling, processing information with respect to, and facilitating transactions in securities, to remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general, to protect investors and the public interest.[12]

Without surveillance-sharing agreements in place between the exchange listing and trading a bitcoin ETP and "significant markets relating to the underlying asset," the SEC concluded that it had to reject the application.[13] The SEC did not close the door, however, saying should regulated bitcoin markets develop, it would consider whether a bitcoin ETP could be listed.[14]

Later in March, the SEC rejected a second bitcoin ETP sponsored by SolidX which was to be listed on NYSE Arca.[15] The SolidX proposal was similar to the Winklevoss ETP, except NAV was to be based on an index of bitcoin prices from five bitcoin exchanges.[16] The SEC's rationale for rejecting the SolidX proposal was that same as in the Winklevoss ETP: "the significant markets for bitcoin are unregulated" and as a result NYSE Arca would not be able to enter into surveillance sharing agreements to help guard against fraudulent or manipulative acts.[17],[18]

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[9] Id. at 22 n.91 citing Exchange Act Release No. 35518 (Mar. 21, 1995), 60 FR 15804 (Mar. 27, 1995) (SR-Amex-94-30).
[10] Id. at 29.
[11] Id. at 28.
[12] Id. at 34 quoting 15 U.S.C. § 78f(b)(5).
[13] Id. at 37.
[14] Id. at 38.
[15] Self-Regulatory Organizations; NYSE Arca, Inc.; Order Disapproving a Proposed Rule Change, as Modified by Amendment No. 1, Relating to the Listing and Trading of Shares of the SolidX Bitcoin Trust under NYSE Arca Equities Rule 8.201(SEC Mar. 28, 2017). Available at: https://www.sec.gov/rules/sro/nysearca/2017/34-80319.pdf
[16] Id. at 3.
[17] Id. at 23.
[18] On April 24, 2017, the SEC granted Bats' petition for review of its March 10, 2017 order disapproving Bats' proposed listing of shares of the Winklevoss Bitcoin Trust. Available at: https://www.sec.gov/rules/other/2017/34-80511.pdf.

Other sponsors for bitcoin-based funds withdrew their applications in September at the SEC's request.[19] These funds were proposed to track, at least in part, bitcoin futures. Given that the US bitcoin futures had not been launched, yet the SEC told these promoters that it would not review their applications.[20] In addition, NYSE Arca withdrew an application to list an ether-based ETP.[21]

Based on the start of trading in bitcoin futures on the CBOE Futures Exchange on December 11, 2017 and the Chicago Mercantile Exchange on December 18, 2017, several of the promoters of the proposed ETPs tracking bitcoin futures have been refiled.[22]

b. **Initial Coin Offerings ("ICOs")**

Since mid-2016, Initial Coin Offerings have raised nearly $4 billion in funding according to the Coindesk ICO Tracker.[23] Generally, ICOs involve selling digital tokens or coins which can either immediately, or in the future, be used to purchase goods or services.[24] Others seem more like the sale of units of a collective investment. Although the nature of what a coin or token offered through an ICO varies, it was long suspected that at least some of these offerings, depending on a variety of factors, could be offerings of securities subject to the securities laws and regulations of the jurisdictions in which the coins were being offered for sale.

i. *The DAO – Investment Company Token*

With its July 25, 2017 *Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934: The DAO*,[25] the SEC broke its silence on the issue of whether initial coin

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[19] Grayscale Investment's Bitcoin Investment Trust, VanEck's Vectors Bitcoin Strategy ETF and REX Shares' REX Bitcoin Strategy ETF and REX Short Bitcoin Strategy ETF. Backers Withdraw Two Proposals to list U.S. Bitcoin Funds (Reuters Sept 28, 2017). Available at: https://www.reuters.com/article/us-bitcoin-etp/backers-withdraw-two-proposals-to-list-u-s-bitcoin-funds-idUSKCN1C30CK

[20] Two Possible Bitcoin Funds Are Withdrawn Due to SEC Issues (Investopedia Oct. 2, 2017). Available at: https://www.investopedia.com/news/two-possible-bitcoin-funds-are-withdrawn-due-sec-issues/

[21] U.S. firm backing ether-based ETF says to refile listing application (Reuters Sept. 7, 2017). Available at: https://www.reuters.com/article/us-etherindex-etf/u-s-firm-backing-ether-based-etf-says-to-refile-listing-application-idUSKCN1BI2VW

[22] Self-Regulatory Organizations; NYSE Arca, Inc.; Notice of Filing of Proposed Rule Change to List and Trade the Shares of the ProShares Bitcoin ETF and the ProShares Short Bitcoin ETF under NYSE Arca Rule 8.200-E, Commentary .02, Release No. 34-82350; File No. SR-NYSEArca-2017-139 (SEC Dec. 19, 2017) Available at: https://www.sec.gov/rules/sro/nysearca/2017/34-82350.pdf**;** Cboe files to list 6 bitcoin ETFs after being first major exchange to trade cryptocurrency futures (CNBC Dec. 22, 2017) Available at: https://www.cnbc.com/2017/12/22/cboe-files-to-list-6-bitcoin-etfs.html

[23] https://www.coindesk.com/ico-tracker/

[24] *Tech Start-Ups Raise $1.3 Billion This Year From Initial Coin Offerings* (Financial Times July 18, 2017) available at: https://www.ft.com/content/1a164d6c-6b12-11e7-bfeb-33fe0c5b7eaa

[25] *Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934: The DAO, Release No. 81297* (SEC July 25, 2017) Available at: https://www.sec.gov/litigation/investreport/34-81207.pdf

offerings could be securities offerings. In its report, the SEC concluded that the tokens were securities given (i) the purpose of tokens to raise virtual currency to fund future profit-making investments, (ii) the reasonable expectation by the purchasers of the tokens that they would share in the profits made by these investments, and (iii) the role of The DAO's founders and others in managing The DAO for it to be a success. As the tokens were not registered with the SEC nor exempt from the registration requirement, the issuance of the coins violated Section 5 of the Securities Act of 1933.

The DAO is an unincorporated organization created by a German corporation, Slock.it UG, and Slock.it's co-founders. The DAO is an example of a decentralized autonomous organization which are virtual organizations embodied by computer code and executed on a distributed ledger. The DAO sold tokens in an initial coin offering to investors and meant to use the proceeds to fund investments called "projects." The token holders were meant to share in the profits generated by the projects. Proposed projects were first to be reviewed by a panel of "Curators" who were individuals chosen by Slock.it. Only if the Curators approved a proposed project would the project then be put to a vote by the token holders. DAO token holders were not restricted from re-selling their tokens bought in the ICO and trading platforms provided secondary markets in the tokens consistent with Slock.it's representations that there would be a secondary market in the tokens.

The SEC analyzed the securities law issues as follows. The US Supreme Court has emphasized that the Congress defined the term "security" so broadly that it "encompass[es] virtually any instrument that might be sold as an investment."[26] While Congress's definition of "security" lists over twenty specific types of instruments, the most relevant here is "investment contract." In its seminal, 1946 decision in *SEC v. W.J. Howey Co.*,[27] the Supreme Court laid down a four-prong test to determine what is and what is not an "investment contract," and therefore a "security." Now known as "the Howey test," for something to be a "security," it must evidence (1) an investment of money; (2) in a common enterprise; (3) with a reasonable expectation of profits; (4) from the entrepreneurial or managerial efforts of others.

Investment of Money: To purchase the DAO's coins, a purchaser had to pay in the virtual currency Ether. Some had questioned whether paying for a token with a virtual currency was an investment of "money." The SEC's Report, however, concluded that the purchase of the DAO's tokens with Ether was an investment of money. The Report points to a 2014 federal trial court decision ruling that an investment of Bitcoins satisfied the first prong of the Howey test.[28] But more importantly, it seems the SEC is on solid ground given case law that has long held that an investment satisfying the first prong of the Howey test may take the form of goods or services or other exchange of value.[29]

Common Enterprise & Reasonable Expectation of Profits: The Report analyzes the question of whether purchasers of the DAO's tokens were investing in a common enterprise prong together with the reasonable expectation of profit prong. The Report concludes that these prongs

[26] *SEC v. Edwards*, 540 U.S. 389, 393 (2004) (quoting *Reves v. Ernst & Young*, 494 U.S. 56, 61 (1990)).
[27] 328 U.S. 293 (1946).
[28] *See SEC v. Shavers*, No. 4:13-CV-416, 2014 WL 4652121, at *1 (E.D. Tex. Sept. 18, 2014)
[29] *Uselton v. Comm. Lovelace Motor Freight, Inc.*, 940 F.2d 564, 574 (10th Cir. 1991)

were satisfied by Slock.it's promotional materials expressly stating that the DAO was a for-profit organization and that the token holders would receive a return on investment by sharing in the profits earned by projects in which the DAO was to invest.

Profits from the Entrepreneurial Efforts of Others: To the extent that some may have thought that the token holders' rights to vote to authorize any investments made by the DAO prevented the fourth prong of the Howey test from being satisfied – namely that any profits would be derived from the managerial efforts of others – the SEC disagreed. The Report points out that the efforts of Slock.it and The DAO's Curators were significant and essential to the success or failure of the DAO. It noted that a federal appeals court had ruled that a multi-level marketing scheme selling a self-motivation program involved the sale of securities. Importantly, the court reached this concusion even though most of the labor involved was provided by the purchasers in getting others to come to meetings. In that case, the Court reasoned that the promoters' provision of pamphlets and audio tapes, organization of group meetings to recruit new members and the running of those meetings strictly based on script they devised were sufficient management efforts to satisfy the Howey test's fourth prong.[30] With the DAO, the Report observed that the token holders had to rely on the expertise of Slock.it and its co-founders in setting up the protocol and the selection of the Curators. The Curators, in turn, had significant management responsibility in vetting the projects in which the DAO would invest, determine if and when proposed projects would be submitted to a vote, decide the order and frequency of proposals to be voted on, and whether to halve the quorum necessary for a successful vote on certain proposals.

Because the DAO's tokens satisfied all four prongs of the Howey test, the Report concludes that the tokens are securities. Under Section 5 of the 1933 Act, the tokens, to be offered, or sold, to US residents, were required to be registered with the SEC, or eligible for an exemption to the registration requirement. They were neither registered nor exempt and accordingly, the offer and sale of the tokens violated Section 5.

ii. *Munchee, Inc. – Operating Company Token*

Although the SEC's DAO Report confirmed that the regulator viewed some initial coin offerings as securities offerings, the DAO's business model more resembled that of an investment company than that of an operating company, and ICOs have been more commonly issued by organizations providing, or purportedly planning to provide, goods or services. In its December 11, 2017 administrative order relating to Munchee Inc.'s ICO,[31] the SEC offered its securities law analysis of an offering by an operating company for the first time.

Munchee had launched an Initial Coin Offering to raise $15 million to improve its "Munchee App" by building an ecosystem of users who were to write restaurant reviews, provide advertising opportunities to restaurants and allow token holders to use the tokens to buy meals and drinks. On the second day that its tokens were available for sale, Munchee stopped the

[30] *SEC v. Glenn Turner Enters.*, 474 F.2d 476, 479-80 (9th Cir. 1973).
[31] *In re Munchee Inc.*, Docket No. 3-18304 (SEC Dec 11, 2017). Available at: https://www.sec.gov/litigation/admin/2017/33-10445.pdf

offering after being contacted by SEC staff, and refunded the funds paid by buyers who had bought tokens.

The SEC's Munchee order provides significant additional insight into how SEC staffers think about six common elements of many operating companies' ICOs in their determination whether an ICO is a securities offering under the Howey test: (1) whether the tokens are immediately usable, (2) the buyers' expectation whether the tokens will rise in value, (3) whether an expected rise in value will be derived from the efforts of others, (4) whether there will be a secondary market for the tokens, (5) how the ICO offering is advertised, and (6) how the proceeds of the ICO are to be used.

1. *Whether the Tokens Are Immediately Usable*

The order notes that "no one was able to buy any good or service with [the Munchee tokens] throughout the relevant period." Presumably, the relevant period is during the offering and before Munchee added the functionality to the app to buy meals with the tokens.

Many lawyers advising ICO issuers have thought that if the token is not usable as soon as it was sold was a very strong factor weighing in favor the token being found to be a security, and if a token was immediately usable that it would be a strong factor weighing against it being a security.

Even though the Munchee token was not immediately usable, the SEC cautioned against reasoning that if a token is immediately usable that is a strong factor for it not to be a security:

> Even if [the Munchee] tokens had a practical use at the time of the offering, it would not preclude the token from being a security. Determining whether a transaction involves a security does not turn on labelling – such as characterizing an ICO as involving a "utility token" – but instead requires an assessment of "the economic realities underlying a transaction." . . . . All of the relevant facts and circumstances are considered in making that determination.[32]

Takeaway: Even immediately usable tokens can be securities, depending on the totality of the facts and circumstances of the ICO.

2. *The Buyers' Expectation whether the Tokens Will Rise in Value*

The Order observes that Munchee's Whitepaper emphasized that the "ecosystem" that Munchee was to create allowing diners and restaurants to use the tokens in various ways would cause the tokens to rise in value. It also stated that Munchee would run the company in a way to cause the tokens to rise in value such as "burning tokens" to restrict the supply of the tokens. The Order concludes: "Purchasers would reasonably believe they could profit by holding or trading [Munchee] tokens, whether or not they ever used the Munchee App or otherwise participated in the [Munchee] 'ecosystem,' based on [the Whitepaper]."

[32] Id. at 9 *quoting United Housing Found., Inc. v. Forman*, 421 U.S. 837, 849 (1975).

Takeaway: The not uncommon claims from ICO promoters that their tokens will appreciate in value are consistent with an investor's intent, not a user's intent. For example, back in the day, people bought travelers' checks not because they thought they would go up in value, but because they wanted to use them as a safe way to transport monetary value.

3. *Whether an Expected Rise in Value will be Derived from the Efforts of Others*

The Order notes that Munchee's website, advertising and Whitepaper reasoned that the tokens would rise in value because "Munchee and its agents could be relied on to provide the significant entrepreneurial and managerial efforts required to make [the Munchee] tokens a success." Representations that management of an ICO issuer will upgrade the functionality of the platform or the tokens themselves in the future are common.

Takeaway: If the promise of future improvements by the ICO issuer are combined with the issuer's claims that token holders will profit by a related increase in value, that will satisfy the prong of the Howey test whether the investor reasonably expects to profit from the efforts of others.

4. *Whether There Will be a Secondary Market for the Tokens*

The Order observes that Munchee's Whitepaper stated "'Munchee will ensure that [the Munchee] token is available on a number of exchanges in varying jurisdictions to ensure that this is an option for all token-holders'." Specifically, the Munchee said that the "tokens would be available for trading on at least one U.S.-based exchange within 30 days of the conclusion of the" ICO. "Munchee highlighted that it would ensure secondary trading market for [the] tokens would be available shortly after the completion of the offering *and prior to the creation* of the ecosystem." In other words, token holders could profit from Munchee's efforts to establish and support a secondary market without ever using the tokens to buy a good or service.

Takeaway: If an ICO issuer is promising to maintain a secondary market, it is less likely that the token will be seen simply as a utility token. With a secondary market, a token holder can profit without ever using the token for the purpose it was made for. This is especially the case if the secondary market will exist prior to the token being usable for its intended purpose.

5. *How the ICO is Advertised*

The Order notes that Munchee had advertised and marketed the token offering broadly on its website and message boards, likening the Munchee tokens "to prior ICOs and digital assets that had created profits for investors." Moreover, the SEC observed that to the extent Munchee had a focus of its marketing it was to people interested in digital assets and the profits earned by investing in such assets as opposed to members of the restaurant industry, promoting how the tokens "might let them advertise in the future," or otherwise use the tokens in their restaurants' businesses.

Takeaway: Marketing an ICO to the general public, or to groups focused on digital asset investments rather than the members of the industry who would use the token in the ordinary course of their business tends to show that the token is really an investment or a security rather than a true utility token.

6. *How the Proceeds of the ICO are to be Used*

The Order comments on how Munchee told token buyers the proceeds of their purchases would be used:

> The proceeds of the [Munchee] token offering were intended to be used by Munchee to build an "ecosystem" that would create demand for [Munchee] tokens and make [the] tokens more valuable. Munchee was to revise the Munchee App so that people could buy and sell services using [the] tokens and was to recruit "partners" such as restaurants willing to sell meals for [the] tokens.

Takeaway: Where the proceeds of the token offering are used to promote the general corporate purposes of the issuer rather than being held in escrow or invested in a hedging transaction to help provide the good or service that the buyer can exchange a token for in the future, the ICO appears to be more of an investment rather than a deferred purchase of a good or service not implicating the securities laws.[33]

iii. *Other Countries' Approaches to ICOs*

During the second half of 2017 several other countries have largely taken a similar approach to that of the SEC, issuing guidance that based on the facts and circumstances involved, engaging in an initial coin offering could involve a regulated activity. Jurisdictions taking this approach

[33] *See also* Katherine Cooper, *SEC Munchee Order a Recipe for Securities Violations* (Coindesk Dec. 22, 2017) available at: https://www.coindesk.com/secs-munchee-order-recipe-securities-law-violations/

include the European Union,[34] the United Kingdom,[35] Canada,[36] Hong Kong,[37] Singapore,[38] Japan,[39] Australia[40] and Switzerland.[41] China[42] and South Korea[43] have issued categorical bans of ICO sales. Taiwan, however, has taken a more accommodative approach.[44]

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[34] European Securities and Markets Authority:

> "Where ICOs qualify as financial instruments, it is likely that firms involved in ICOs conduct regulated investment activities, in which case they need to comply with the relevant legislation, including for example:
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> · the Prospectus Directive,
> · the Markets in Financial Instruments Directive (MiFID),
> · the Alternative Investment Fund Managers Directive (AIFMD); and
> · the Fourth Anti-Money Laundering Directive.
>
> ESMA stresses that firms involved in ICOs should give careful consideration as to whether their activities constitute regulated activities. Any failure to comply with the applicable rules will constitute a breach."

(ESMA Nov. 13, 2017). Available at:
https://www.esma.europa.eu/file/23911/download?token=mvPl6EXo

[35] *FCA Consumer Warning About the Risks of Initial Coin Offerings* (FCA Sept 9, 2017) ("Businesses involved in an ICO should carefully consider if their activities could mean they are arranging, dealing or advising on regulated financial investments") Available at:
https://www.fca.org.uk/news/statements/initial-coin-offerings. In December, "The Financial Conduct Authority (FCA) said it planned to 'conduct a deeper examination of the fast-paced developments" in ICOs and would assess if it needs to take "further regulatory action'."
http://www.telegraph.co.uk/technology/2017/12/15/fca-assess-regulatory-action-initial-coin-offerings/

[36] Canadian Securities Administrators: "many of these cryptocurrency offerings involve sales of securities." *CSA Staff Notice 46-307* (CSA Aug. 24.2017) Available at:
http://www.osc.gov.on.ca/en/SecuritiesLaw_csa_20170824_cryptocurrency-offerings.htm

[37] Hong Kong Securities and Futures Commission, *Statement on Initial Coin Offerings* (HKSFC Sept. 5, 2017) ("depending on the facts and circumstances of an ICO, digital tokens that are offered or sold may be '*securities*' as defined in the Securities and Futures Ordinance (SFO), and subject to the securities laws of Hong Kong") http://www.sfc.hk/web/EN/news-and-announcements/policy-statements-and-announcements/statement-on-initial-coin-offerings.html

[38] "The Monetary Authority of Singapore (MAS) clarified today [August 1, 2017] that the offer or issue of digital tokens in Singapore will be regulated by MAS if the digital tokens constitute products regulated under the Securities and Futures Act (Cap. 289) (SFA)" (MAS Aug. 1, 2017) Available at:
http://www.mas.gov.sg/News-and-Publications/Media-Releases/2017/MAS-clarifies-regulatory-position-on-the-offer-of-digital-tokens-in-Singapore.aspx. In addition, on November 14, 2017 MAS issued "A Guide to Digital Token Offerings." Available at:
http://www.mas.gov.sg/~/media/MAS/Regulations%20and%20Financial%20Stability/Regulations%20Guidance%20and%20Licensing/Securities%20Futures%20and%20Fund%20Management/Regulations%20Guidance%20and%20Licensing/Guidelines/A%20Guide%20to%20Digital%20Token%20Offerings%20%2014%20Nov%202017.pdf

[39] Japanese Financial Services Authority:

> ICOs may fall within the scope of the Payment Services Act and/or the Financial Instruments and Exchange Act depending on how they are structured. Businesses involved in an ICO should adequately fulfill their duties required by related laws and regulations such as registration when their services are regulated by those acts. Delivering such services without registration is subject to criminal penalties.

Initial Coin Offerings (ICOs) – User and Business Operator Warning About the Risks of ICOs (JFSA Oct. 27, 2017) http://www.fsa.go.jp/policy/virtual_currency/07.pdf

II. Commodity Futures Trading Commission

In contrast to the SEC's cautious approach to permitting digital currency based securities products, the CFTC through DCM and DCO approvals, and non-objections to bitcoin futures DCM self-certifications, has taken a more permissive approach.

a. LedgerX Approvals

On July 6, 2017, the CFTC issued an order granting LedgerX LLC registration as a swap execution facility.[45] On July 24, 2017, the CFTC issued an order granting LedgerX registration

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[40] The Australian Securities and Investments Commission:

> In Australia, the legal status of an ICO is dependent of the circumstances of the ICO, such as how the ICO is structured and operated, and the rights attached to the coin (or token) offered through the ICO.
>
> In some cases, the ICO will only be subject to the general law and the Australian consumer laws regarding the offer of services or products. In other cases, the ICO may be subject to the Corporations Act.

INFO 225: Initial Coin Offerings (ASIC Sept 2017) available at: http://asic.gov.au/regulatory-resources/digital-transformation/initial-coin-offerings/

[41] Swiss Financial Market Supervisory Authority:

> Due to the close proximity in some areas of ICOs and token-generating events with transactions in conventional financial markets, the likelihood arises that the scope of application of at least one of the financial market laws may encompass certain types of ICO model. . . .. Where financial market legislation has been breached or circumvented, enforcement proceedings will be initiated.

FINMA Guidance 04/2017 Regulatory Treatment of Initial Coin Offerings (FINMA Sept. 29, 2017). Available at: https://www.finma.ch/en/news/2017/09/20170929-mm-ico/

[42] "Seven government administrations including the People's Bank of China, China Securities Regulatory Commission, China Banking Regulatory Commission and China Insurance Regulatory Commission issued a joint statement where they reiterated that ICOs are unauthorized illegal fund raising activity." *China bans companies from raising money through ICOs, asks local regulators to inspect 60 major platforms* (CNBC Sept 4, 2017) Available at: https://www.cnbc.com/2017/09/04/chinese-icos-china-bans-fundraising-through-initial-coin-offerings-report-says.html

[43] Korean Financial Service Commission stated token offerings "constitute a 'violation of the capital market law'." *South Korean Regulator Issues ICO Ban*, (Coindesk Sept. 29, 2017). Available at: https://www.coindesk.com/south-korean-regulator-issues-ico-ban/

[44] "Taiwan's Financial Supervisory Commission (FSC) has expressed its support for the mainstream adoption of initial coin offerings (ICOs), virtual currencies, and Blockchain in the country." *Challenging China: Taiwan Supports Mainstream Adoption of ICOs and Bitcoin*, (Cointelegrah Oct. 10, 2017). Available at: https://cointelegraph.com/news/challenging-china-taiwan-supports-mainstream-adoption-of-icos-and-bitcoin

[45] In re the Application of LedgerX, LLC for Registration as a Swap Execution Facility (CFTC July 6, 2017) available at: http://www.cftc.gov/idc/groups/public/@otherif/documents/ifdocs/orgledgerxord170706.pdf

as a derivatives clearing organization.[46] LedgerX proposed to trade only fully-collateralized digital currency swaps. The CFTC's DCO registration order provided that a "contract cleared by LedgerX will be considered fully collateralized if LedgerX holds, at all times, funds sufficient to cover the maximum possible loss a counterparty could incur upon liquidation or expiration of the contract, in the form of the required payment."[47] Simultaneously, with the order granting it DCO registration, the Division of Clearing and Risk issued LedgerX exemptive relief from various requirements of Part 39 in light of the fully collateralized nature of the contracts it would trade and clear.[48] The letter made clear that LedgerX represented that it would perform:

> a pre-trade credit check to ensure each participant has sufficient collateral at LedgerX or a LedgerX-approved depository to cover the participant's maximum potential loss or delivery obligation [where] LedgerX accepts U.S. dollars and the commodity underlying the contract (i.e., bitcoin) as collateral.[49]

LedgerX has listed for trading as of the date of this writing U.S. dollar bitcoin European options with monthly expiries (the last Friday of each calendar month) and weekly expiries (the last Friday of each week). It has also listed "Day-Ahead USD/BTC Swaps," where the buyer pays U.S. dollars on the trade date and the seller pays bitcoins on the settlement date (next day).[50]

To be fully collateralized, the seller of one of the calls and the swap has to have the full amount of bitcoins to be delivered on deposit with LedgerX or one of its depositories. To address the risk of adverse claims to the bitcoins a market participant has deposited, LedgerX Rule 7.2 requires each participant to grant LedgerX "a continuing first priority interest in, lien on, right of setoff against and collateral assignment of all of such Participant's right, title and interest in and to any property and collateral deposited with [LedgerX] . . . ."[51] In addition, Rule 7.2 also requires each participant to agree:

> that with respect to any Digital Currency and any other financial asset which is or may be credited to the Participant's Participant Account, the Exchange shall have control pursuant to Section 9-106(a) and 8-106(e) of the UCC and a perfected security interest pursuant to Section 9-314(a) of the UCC.[52]

Apparently, the CFTC accepted these provisions as sufficiently protecting the DCO from adverse claims to bitcoins deposited by participants. This risk arises from bitcoin falling into U.C.C. Article 9's category of general intangibles:

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[46] In re the Application of LedgerX, LLC for Registration as a Derivatives Clearing Organization (CFTC July 24, 2017) available at: http://www.cftc.gov/idc/groups/public/@otherif/documents/ifdocs/ledgerxdcoregorder72417.pdf

[47] Id. at 1.

[48] Letter dated July 24, 2017 to Paul Chou from John Lawton ("CFTC Letter 17-35") available at: http://www.cftc.gov/idc/groups/public/@lrlettergeneral/documents/letter/17-35.pdf

[49] Id. at 2.

[50] LedgerX Rulebook, Rules 12.1 through 12.3 available at: https://ledgerx.com/wp-content/uploads/2017/11/LedgerX-LLC-Rulebook-final-102017.pdf

[51] Id. at Rule 7.2B.

[52] Id. at Rule 7.2C.

> [b]ecause Article 9 has *no* negotiation rule for the *buyers* of general intangibles that are subject to a perfected security interest . . . . once a security interest in a general intangible is perfected, it survives even after multiple transfers to third parties.[53]

Whether LedgerX Rule 7.2 adequately addresses the risk that the creditor of the person that sold a bitcoin to a participant who is using it for collateral could claim the bitcoin is untested. Thus, whether Rule 7.2 protects the DCO from having collateral it is depending on to fully collateralize an open position from being seized is unclear.[54] It does seem, however, that the CFTC took comfort in the fact that LedgerX's contracts were to be fully collateralized given the exemptive relief it granted relieving LedgerX from stress testing and risk management requirements, among others.[55]

b. Non-Objection to Bitcoin Futures Self-Certifications

On December 1, 2017, the CME and CFE self-certified bitcoin futures contracts and the Cantor Exchange self-certified bitcoin binary option contracts.[56]

The CFE bitcoin futures contract is a cash-settled contract for one bitcoin listing up to four near-term expiration weeks, three near term serial months and three months in the March/June/September/December quarterly cycle. It is cleared by the Options Clearing Corporation in its general futures clearing fund through CFE's clearing services agreement with the OCC. Settlement is based an auction conducted on the Gemini Exchange, a digital asset exchange organized as a New York limited liability trust company and regulated by the New York State Department of Financial Services, as long as that price is within five percent of the Winklevoss Blended Bitcoin Index.[57] That index is "a ten minute volume weighted average price ("VWAP") of bitcoin transactions in U.S. dollars on the Gemini Exchange and other bitcoin trading venues. These other bitcoin trading venues currently include the Bitstamp, itBit, and GDAX trading venues."[58]

The CME bitcoin futures contract is a cash-settled contract for five bitcoins listing the two nearest months in the March quarterly cycle and the two nearest serial months. It is cleared in the CME clearinghouse's general clearing fund. Final settlement is based on the CME CF Bitcoin Reference Rate. This rate is based on trading on 4 cash bitcoin exchanges which CME reports

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[53] J. Schroeder, *Bitcoin and the Uniform Commercial Code* (Aug. 22, 2015) at 21 (emphasis in original) (available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2649441);
[54] Id. at 23-24; Coindesk, Perkins Coie: The UCC and Bitcoins – Solution to Existing Fatal Flaw (Jan. 29, 2015)
[55] CFTC Letter 17-35 at 2-4.
[56] CFE Certification Letter (CFE Dec. 1, 2017) available at: http://www.cftc.gov/filings/ptc/ptc120117cfedcm001.pdf; CME Certification Filing (CME Dec. 1, 2017) available at: http://www.cftc.gov/filings/ptc/ptc120117cmedcm001.pdf; Cantor Certification Filing (Cantor Dec. 1, 2017) available at: http://www.cftc.gov/filings/ptc/ptc120117cantordcm001.pdf.
[57] CFE Certification Letter at 2 & 9.
[58] Id. at 3.

"represent up to 35% of the total BTC:USD trade globally."[59] The Bitcoin Reference Rate, however, is only calculated during a one hour period from 3 pm to 4 pm London time.[60]

The Cantor binary option is a cash-settled option for one bitcoin listing contracts at the beginning of each calendar month which expire at the end of three months.[61] It is cleared by the Cantor DCO, with market participants directly self-clearing their transaction with the DCO. Final settlement is based on an aggregation of cash prices during the last 10 minutes of an expiring contract, "bitcoin price arbitrage matrices and the Exchange's own bids, offers and traded prices."[62]

In certifying a new contract, an exchange must certify that the contract complies with the DCM Core Principles and the CFTC's regulations promulgated thereunder.[63] One of the Core Principles, Core Principle 3 provides:

> **Contracts Not Readily Subject to Manipulation**
> The board of trade shall list on the contract market only contracts that are not readily susceptible to manipulation.[64]

Given the unregulated nature of the underlying bitcoin cash markets, it is not surprising that each of the three Exchange' certifications present detailed arguments how their contracts comply with Core Principle 3.

The CFE's certification letter argues that its contract is not readily susceptible to manipulation given structural safeguards built into the Gemini Exchange auction process. These safeguards are the auction process aggregates liquidity temporally, all orders must be prefunded, auction orders must be limit orders, self-crossing (a/k/a "wash trading") is prohibited, and the guardrail provided by the collar limiting the auction price to be within five percent of the Winklevoss Blended Bitcoin Index value. In addition, CFE points to its telescoping position limits, limiting traders to positions of 1,000 contracts in the expiring contract.[65] Finally, the CFE points to an information sharing agreement that it has entered into with Gemini that

> that provides CFE with the ability to access Gemini Exchange trade data for regulatory purposes, including in connection with the surveillance and regulation of trading in XBT futures on CFE's market. Pursuant to this information sharing agreement, CFE Regulation ("CFER") will receive on a regular basis from Gemini, order and trade detail information from the Gemini Exchange market for bitcoin in U.S. dollars which CFER will utilize to conduct cross market surveillance of the Gemini Exchange bitcoin auction and the CFE XBT futures settlements. [66]

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[59] CME Certification Filing at 2 & 5.
[60] Id.
[61] Cantor Certification Filing at 11.
[62] Id. at 5.
[63] Commodity Exchange Act § 5c(c); 7 U.S.C. § 7a-2; 17 C.F.R. § 40.2.
[64] Commodity Exchange Act § 5(d)(3); 7 U.S.C. § 7(d)(3).
[65] CFE Certification Letter at 7.
[66] Id. at 6.

CFE also represents that it will try to put in place an information sharing agreement with any exchange whose price is an input into the Winklevoss Blended Bitcoin Index.[67]

The CME's certification argues that:

> As referenced above, the Exchange certifies that the underlying reference rate, the CME CE Bitcoin Reference Rate, is not readily subject to manipulation.
>
> The calculation methodology has been created in accordance with the IOSCO principles. The index is calculated from a large number of trades observed during the calculation window. The combination of volume weighting of medians plus non-weighted partitions prevents manipulation in the reference rate. Ultimately, influencing the BRR would require significant trading activity on several exchanges over an extended period of time.[68]

The CME, however, admits that its Bitcoin Reference Rate is based on only "up to 35%" of global bitcoin/USD exchange trading.

Cantor final settlement is based on its "Cash Market Reference Price" during the last ten minutes of an expiring contract. Its certification argues that its inherently discretionary, non-formulaic approach is

> superior because (1) potential manipulators do not explicitly know and therefore cannot target any one cash exchange or pre-identified list of exchanges to impact the Reference Price; (2) the Reference Price cannot be directly impacted by placing a large volume trade on any one exchange; (3) the Reference Price can reflect other, aggregate metrics that are not easily incorporated from completed transactions; and (4) the Reference Price can be centered on the midpoint price that reflects the combined trading from a large number of cash markets.[69]

The prospect of the launch of bitcoin futures products on U.S. futures exchanges was met with concern from many market participants. In an open letter on November 14, 2017 to CFTC Chairman Giancarlo, Thomas Petterfy, the Chairman of Interactive Brokers, requested the CFTC "require that any clearing organization that wishes to clear any cryptocurrency or derivative of a cryptocurrency do so in a separate clearing system isolated from other products."[70] Peterffy argued that

> There is no fundamental basis for valuation of Bitcoin and other cryptocurrencies, and they may assume any price from one day to the next. This has been illustrated quite clearly in 2017 as the price of Bitcoin has increased by nearly 1000% [and that

[67] Id. at 3.
[68] CME Certification Filing at 7-8.
[69] Cantor Certification Filing at 5-6.
[70] Letter dated Nov. 14, 2017 from Thomas Peterffy to J. Christopher Giancarlo available at: http://online.wsj.com/public/resources/documents/Peterffy_Bitcoin_Letter.pdf

> margining] such a product in a reasonable manner is impossible. While the buyer (the long side) of a cryptocurrency futures contract or call option could be required to put up 100% of the value to ensure safety, determining the margin requirement for the seller (the short side) is impossible.[71]

Peterffy expressed fear that if "the Chicago Mercantile Exchange or any other clearing organization clears a cryptocurrency together with other products, then a large cryptocurrency price move that destabilizes members that clear cryptocurrencies will destabilize the clearing organization itself." He noted that even clearing firms that chose not to clear cryptocurrency futures and options were still exposed to their unquantifiable risk due to their clearing fund contributions and default waterfall assessment obligations.[72]

Following the CFE, CME and Cantor self-certifications, on December 6, 2017, Futures Industry Association President Walt Lukken also wrote to Chairman Giancarlo. Lukken shared the FIA's concerns regarding the launch of bitcoin futures and options. In light of the potential risk to the futures industry clearing infrastructure these products may pose that Peterffy had highlighted, Lukken questioned the use of the self-certification process for such novel products:

> While suited for standardized products, this process does not distinguish for a product's risk profile or unique nature. We believe that this expedited self-certification process for these novel products does not align with the potential risks that underlie their trading and should be reviewed. Given the lack of historical data on these products, it is further concerning to clearing members that they will bear the brunt of the risk associated with them through their guarantee fund contributions and assessment obligations, even if not participating in these markets directly, rather than the exchanges and clearinghouses who have listed them. A public discussion should have been had on whether a separate guarantee fund for this product was appropriate or whether exchanges put additional capital in front of the clearing member guarantee fund.[73]

In response to the certifications the CFTC took no action to stay the listing of the bitcoin futures and options contracts. It did issue a "CFTC Backgrounder on Self-Certified Contracts for Bitcoin Products."[74] The Backgrounder notes that

> when an exchange self-certifies a new contract that it must determine that the contract complies with the CEA and Commission regulations, including that the new contract is not readily susceptible to manipulation.[75]

The backgrounder goes on to assert that:

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[71] Id.
[72] Id.
[73] Letter dated Dec. 6, 2017 from Walter Lukken to j. Christopher Giancarlo available at: https://fia.org/articles/open-letter-cftc-chairman-giancarlo-regarding-listing-cryptocurrency-derivatives
[74] CFTC Backgrounder on Self-Certified Contracts for Bitcoin Products (CFTC Dec. 1, 2017) available at: http://www.cftc.gov/idc/groups/public/@newsroom/documents/file/bitcoin_factsheet120117.pdf
[75] Id. at 1.

> Unless the Commission finds that a new product would violate the CEA or Commission regulations, the DCM may list the new product no sooner than one full business day following the self-certification.[76]

It states that the CFTC "has limited ability to require the DCMs to make changes to their contracts or to require the DCOs to change their approaches to clearing the contracts." In response to calls from many quarters for the clearinghouses clearing bitcoin contracts to establish a separate clearing fund for them to insulate the risks posed by the products from the rest of the clearing ecosystem, the Backgrounder stated: "the Commission does not have the authority to require the DCOs to establish separate clearing systems or guaranty funds to clear these contracts."[77]

Thus, the backgrounder stresses that the CFTC was not "approving" the contracts and says it had limited ability to require the exchanges "to make changes to their contracts."

It is true that Section 5c(c) of the Commodity Exchange Act only explicitly enables the CFTC to review new rules and not new contracts. Nonetheless, the CFTC's regulation setting forth the procedure for listing products by certification, 17 C.F.R. § 40.2, provides the CFTC with the authority to stay the listing of a new contract "during the pendency of a petition to alter or amend the contract terms and conditions pursuant to Section 8a(7) of the Act."[78] Section 8a(7) authorizes the CFTC to alter or supplement the rules of an exchange, if after requesting the exchange to amend its rules and after a hearing it determines that the exchange has not made the requested amendment, so long as the amendments "are necessary or appropriate for the protection of persons producing, handling, processing, or consuming any commodity traded for future delivery . . . ."[79]

Given the CFTC's authority under Regulation § 40.2(c) to stay the certifications, it is not clear why CFTC determined that it could not issue a stay to have the robust public discussion that FIA suggested given the novelty of the products. It is also not clear why the CFTC felt that given its authority under Section 8a(7) to request and then mandate changes to an exchange's rules, it could not, for instance, have required CFE to have in place additional information sharing agreements to access data representing more than the modest fraction of global bitcoin volume traded on Gemini.[80] Even though CME's Bitcoin Reference Rate is based on data from exchanges representing "up to 35%" of global daily bitcoin/USD volume, it is not clear what percentage of global volume those exchanges represent during the one hour observation period

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[76] Id.
[77] Id.
[78] 17 C.F.R. § 40.2(c)
[79] 7 U.S.C. § 12a(7). Concededly, Section 8a(7) does predate the addition of Section 5c(c) by the Commodity Futures Modernization Act, so it is not clear how Congress meant for the two provisions to work together. That said, when the CFTC promulgated Section 40.2 of its regulations to implement Section 5c(c)'s certification process, it seemed to think that there was some role for the two statutory provisions to work together. 40.2 authorizes the staying of a product certification during a Section 8a(7) proceeding.
[80] *See* chart comparing bitcoin trading volume across world cash trading platforms provided by data.bitcoinity.org available at: https://data.bitcoinity.org/markets/volume/30d?c=e&t=b

that generates the BRR. In listing international broad-based security index products, U.S. regulators have generally liked to see coverage of seventy percent or more of the underlying markets.[81] And those underlying markets are regulated exchanges. It is unclear why the CFTC would settle for such far less surveillance coverage, particularly in light of the unregulated nature of cash bitcoin trading venues.

In any event, the CFTC, though admittedly facing a different statutory framework than the SEC, reached a different result, permitting the listing of bitcoin products on its U.S. regulated exchanges, whereas the SEC found similar bitcoin fell short of regulatory requirements.

Late Breaking Update

On January 4, 2018, Chairman Giancarlo announced that the CFTC Market Risk Advisory Committee would meet on January 31, 2019 "to consider the process of self-certification of new products and operational rules by Designated Contract Markets (DCMs) under the Commodity Exchange Act (CEA) and CFTC regulations." In addition, Chairman Giancarlo that the CFTC's Technology Advisory Committee's meeting scheduled for January 23, 2018 "will consider the related challenges, opportunities, and market developments of virtual currencies."[82]

In addition, the CFTC issued a "CFTC Backgrounder on Oversight of and Approach to Virtual Currency Futures Markets." It describes a five-pronged approach to the CFTC's regulatory approach currencies:

> 1) Consumer Education. Amidst the wild assertions, bold headlines, and shocking hyperbole, there is a need for greater public understanding.
>
> 2) Asserting Legal Authority. Asserting legal authority over virtual currency derivatives in support of the CFTC's anti-fraud and[83] manipulation efforts, including in underlying spot markets, is a key component in the CFTC's ability to effectively regulate these markets.

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[81] See, e.g., *Self-Regulatory Organizations; Miami International Securities Exchange LLC; Order Granting Approval of a Proposed Rule Change to Adopt Rules Relating to Trading in Index Options,* Release No. 34-81739; File No. SR-MIAX-2017-39
(SEC Sept. 27, 2017) ("Accordingly, the Commission finds that the requirement that no more than 20% of the weight of the index may be comprised of non-U.S. component securities (stocks or ADRs) that are not subject to a comprehensive surveillance sharing agreement between the particular U.S. exchange and the primary market of the underlying security will continue to ensure that the Exchange has the ability to adequately surveil trading in the broad-based and narrow-based index options and the ADR components of the index.") available at: https://www.sec.gov/rules/sro/miax/2017/34-81739.pdf

[82] Statement of CFTC Chairman J. Christopher Giancarlo dated January 4, 2018 available at: http://www.cftc.gov/PressRoom/PressReleases/giancarlostatement010418

[83] CFTC Backgrounder on Oversight of and Approach to Virtual Currency Futures Markets (CFTC Jan. 4, 2018) available at:
http://www.cftc.gov/idc/groups/public/@newsroom/documents/file/backgrounder_virtualcurrency01.pdf

> 3) Market Intelligence. Gaining the ability to monitor markets for virtual currency derivatives and underlying settlement reference rates through the gathering of trade and counterparty data will provide regulatory and enforcement insights into those markets.
> 4) Robust Enforcement. In addition to its general regulatory and enforcement jurisdiction over the virtual currency derivatives markets, the CFTC has jurisdiction to police fraud and manipulation in cash or spot markets. The CFTC intends to continue to exercise this jurisdiction to enforce the law and prosecute fraud, abuse, manipulation or false solicitation in markets for virtual currency derivatives and underlying spot trading.
>
> 5) Government-wide Coordination. The CFTC actively coordinates its approach to Bitcoin and other virtual currencies with other Federal regulators, including the Securities and Exchange Commission (SEC), Federal Bureau of Investigation (FBI), Justice Department and Financial Stability Oversight Council (FSOC). The CFTC also coordinates with state entities, including state Attorneys General, in addition to working with the White House, Congress and other policy-makers.[84]

The Backgrounder states that in the case of the CME and CFE certifications none of the "limited grounds" for the CFTC to "stay" the certifications.[85] In an apparent reference to Section 8a(7), the Backgrounder acknowledges that "[a]nother avenue would have required the CFTC to adopt a rule though regular order and require DCM adoption [but for] a variety of reasons, that was not feasible."[86] The Backgrounder further explains that the CFTC engaged in a "Heigtened Review" for the certifications which include:

> 1) derivatives clearing organizations (DCOs) setting substantially high initial and maintenance margin for cash settled Bitcoin futures;
>
> 2) DCMs setting large trader reporting thresholds at five bitcoins or less;
>
> 3) DCMs entering direct or indirect information sharing agreements with spot market platforms to allow access to trade and trader data;
>
> 4) DCM monitoring of data from cash markets with respect to price settlements and other Bitcoin prices more broadly, and identifying anomalies and disproportionate moves in the cash markets compare to the futures markets;
>
> 5) DCMs agreeing to engage in inquiries, including at the trade settlement level when necessary;
>
> 6) DCMs agreeing to regular coordination with CFTC surveillance staff on trade activities, including providing the CFTC surveillance team with trade settlement data upon request; and

[84] Id. at 1-2.
[85] Id. at 2.
[86] Id. at 2 n.8. The Backgrounder does not elaborate why an action under Section 8a(7) was not feasible.

7) DCMs coordinating product launches so that the CFTC's market surveillance branch can carefully monitor minute by-minute developments.[87]

Obviously, this is a quickly developing area. Market participants will learn more about the CFTC's thinking from the discussions at the TAC and MRAC meetings later in January.

Bottom line: STAY TUNED!

c. Guidance and Investor Warnings

The CFTC released a series of investor advisories regarding virtual currencies, including "A CFTC Primer on Virtual Currencies,"[88] "Customer Advisory: Understand the Risks of Virtual Currency Trading,"[89] and the previously discussed "CFTC Backgrounder on Self-Certified Contracts for Bitcoin Products."

III. Proposed OCC FinTech Banking License & States' Challenges

a. OCC Proposed Special Purpose National Bank Charters for Fintech Companies

On March 15, 2017, the Office of the Comptroller of the Currency issued a draft licensing manual supplement for evaluating bank charter applications from financial technology companies.[90] In the accompanying explanatory paper, the OCC elaborated that it was creating a new "special purpose national bank" category for fintech companies. The OCC has created several types of SPNBs in the past for "national bank[s] that engage[] in a limited range of banking activities, including one of the core banking functions, but does not take deposits and is not insured by the Federal Deposit Insurance Corporation (FDIC)."[91] The OCC stated that it

> believes that making SPNB charters available to qualified fintech companies would be in the public interest. An SPNB charter provides a framework of uniform standards and

[87] id. at 3.
[88] LabCFTC, *A CFTC Primer on Virtual Currencies* (CFTC Oct. 11, 2017) available at: http://www.cftc.gov/idc/groups/public/documents/file/labcftc_primercurrencies100417.pdf
[89] *Customer Advisory: Understand the Risks of Virtual Currency Trading* available at: http://www.cftc.gov/idc/groups/public/@customerprotection/documents/file/customeradvisory_urvct121517.pdf

[90] *OCC Issues Draft Licensing Manual Supplement for Evaluating Charter Applications From Financial Technology Companies, Will Accept Comments Through April 14*, NR 2017-31 (OCC March 15, 2017) available at: https://www.occ.treas.gov/news-issuances/news-releases/2017/nr-occ-2017-31.html

[91] *OCC Summary of Comments and Explanatory Statement: Special Purpose National Bank Charters for Financial Technology Companies* (OCC March 2017) at 2 available at: https://www.occ.treas.gov/topics/responsible-innovation/summary-explanatory-statement-fintech-charters.pdf

> robust supervision for companies that qualify. Applying this framework to fintech companies would help ensure that they operate in a safe and sound manner and fairly serve the needs of consumers, businesses, and communities. In addition, the OCC believes supervision by a federal regulator would promote consistency in the application of federal laws and regulations across the country.[92]

The proposed national charter would ease the quiltwork of individual state regulatory requirements that many start-up fintech firms struggle with. By affording a startup a national banking license, the firm would not be subject to the state banking regulations in each of the states it seeks to do business. Many virtual currency businesses, for example, have been challenged to become registered in the fifty-two jurisdictions with money transmitter registration and regulation requirements and some have estimated the cost of compliance in all jurisdictions upwards of $500,000.

b. <u>States' Legal Challenges</u>

Numerous state banking regulators challenged the OCC's effort to create a national bank charter for fintech firms. On April 26, 2017, the Conference of State Bank Supervisors sued the OCC in the United States District Court for the District of Columbia alleging that the OCC had not only acted beyond its statutory authority but also failed to consider the effect of its actions on the states' authority to regulate traditional areas of state concern.

In sum, the CSBS's argument is that the National Bank Act of 1863, as amended, only authorizes the OCC to issue national bank charters to institutions in the "business of banking. It argues that the term "business of banking" has since the 19th century required an entity to at least in part be in the business of taking deposits. Over the years, Congress has only expressly authorized via statutory amendment three narrowly defined types of special purpose national banks that need not be engaged in deposit taking. Congress has not expressly authorized a fourth type of special purpose national bank for fintech companies so the OCC's proposed new special purpose national bank category is ultra vires.[93]

On May 12, 2017, the New York State Department of Financial Service sued the OCC in the United States District Court for the Southern District of New York. Similar to the CSBS's lawsuit, DFS challenged the authority "to grant special-purpose national bank charters to a boundless class of undefined financial technology . . . companies."[94] On December 12, 2017, the Southern District granted the OCC's motion to dismiss the DFS's complaint.[95] Because the OCC had not issued a final rule nor had granted a single fintech special purpose national bank charter, the court found that DFS had not identified "a cognizable injury in fact" and therefore

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[92] Id. at 3.
[93] Complaint, *Conference of State Bank Supervisors v. OCC*, Docket No. 1:17-cv-00763 (D.D.C. 2017) at 3 available at: https://bankcsbs.files.wordpress.com/2017/04/csbs-occ-complaint-final.pdf
[94] Complaint for Declaratory and Injunctive Relief, *Maria T. Vullo v. OCC*, Docket No. 1:17-cv-03574 (S.D.N.Y. May 12, 2017) available at: http://www.dfs.ny.gov/about/ea/ea170512.pdf
[95] Memorandum and Order, *Maria T. Vullo v. OCC*, Docket No. 1:17-cv-03574 Document No. 30 (S.D.N.Y.) available on PACER.

lacked standing under Article III of the US Constitution.[96] In addition, the court concluded that the DFS's claims failed both the constitutional and prudential ripeness tests for the same reasons that it had concluded that the DFS lacked standing.[97]

Because the CSBS challenge is still pending, and the DFS's action was dismissed solely on procedural grounds, obtaining a fintech national bank charter remains an uncertain path to meeting regulatory compliance for fintech companies. Until the issues raised by the CSBS and DFS are resolved on their merits, it is unlikely any fintech company will desire to invest the resources in applying for and obtaining such a license.[98]

IV. Financial Crimes Enforcement Network

On March18, 2013, the Financial Crimes Enforcement Network ("FinCEN") issued guidance regarding the applicability of the regulations implementing the Bank Secrecy Act "to persons creating, obtaining, distributing, exchanging, accepting, or transmitting virtual currencies."[99] The guidance provided that mere users of virtual currencies were "not subject to the FinCEN registration, reporting, and recordkeeping regulations for [money services businesses]."[100] Under the guidance a "user" is defined to be "a person that obtains virtual currency to purchase goods or services."[101]

However, the guidance states that administrators and exchangers were "money transmitters" (a type of money service business) subject to FinCEN's regulations unless a specific exception applied. Under the guidance, the term "exchanger" means "a person engaged as a business in the exchange of virtual currency for real currency, funds, or other virtual currency." And an "administrator" is "a person engaged as a business in issuing (putting into circulation) a virtual currency, and who has the authority to redeem (to withdraw from circulation) such virtual currency."[102]

FinCEN explained:

> FinCEN's regulations define the term "money transmitter" as a person that provides money transmission services, or any other person engaged in the transfer of funds. The term "money

[96] Id. at 18-21.
[97] Id. at 21-26.
[98] Moreover, Keith Noreika, the Acting Comptroller of the Currency, following the departure of the Obama appointed Comptroller, Thomas Curry, stated that while the OCC "will continue to defend our authority vigorously [to issue a fintech national bank charter,] [w]e have not, however decided whether we will exercise that specific authority to issue special purpose national bank charters to nondepository fintech companies." Id. at 10.
[99] Application of FinCEN's Regulations to Persons Administering, Exchanging, or Using Virtual Currencies, FIN-2013-G001 (FinCEN March 18, 2013) available at: https://www.fincen.gov/sites/default/files/shared/FIN-2013-G001.pdf
[100] Id. at 2.
[101] Id.
[102] Id.

> transmission services" means "the acceptance of currency, funds, or other value that substitutes for currency from one person and the transmission of currency, funds, or other value that substitutes for currency to another location or person by any means."[103]

Companies dealing, however, in e-precious metals or e-currencies where a broker or dealer in real currency or other commodities "accepts and transmits funds solely of the purpose of effecting a bona fide purchase or sale of the real currency or other commodities for or with a customer, such person is not acting as a money transmitter under the regulations."[104] If, however, the broker or dealer "transfers funds between a customer and a third-party that is not part of the currency or commodity transaction" that broker or dealer is a money transmitter.[105]

In an October 14, 2014 administrative ruling, FinCEN rejected the argument that the operator of a virtual currency trading platform was not a money transmitter because it solely transferred virtual and fiat currency to consummate purchases and sales of virtual currency.[106] Even though the trading platform never transferred funds from a customer's account to a third-party (except to settle a virtual currency trade), FinCEN said that "a person is an exchanger and a money transmitter if the person accepts convertible virtual currency form one person and transmits it to another person as part of the acceptance and transfer of currency, funds, or other value that substitutes for currency."[107]

On August 14, 2015, FinCEN issued an administrative ruling finding that a person issuing digital negotiable certificates of ownership of precious metals were money transmitters if the certificates were freely transferable.[108] FinCEN stated:

> The Company does not fall under the e-currencies or e-precious metals trading exemption from money transmission because, when the Company issues a freely transferable digital certificate of ownership to buyers, it is allowing the unrestricted transfer of value from a customer's commodity position to the position of another customer or a third-party, and it is no longer limiting itself to the type of transmission of funds that is a fundamental element of the actual transaction necessary to execute the contract for the purchase or sale of the currency or the other commodity.[109]

FinCEN reasoned that:

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[103] Id. at 3.
[104] Id. citing *Application of the Definition of Money Transmitter to Brokers and Dealers in Currency and other Commodities*, FIN-2008-G008 (FinCEN Sept. 10, 2008).
[105] Id. at 3-4.
[106] *Request for Administrative Ruling on the Application of FinCEN's Regulations to a Virtual Currency Trading Platform*, FIN-2014-R011 (FinCEN Oct. 27, 2014) available at: https://www.fincen.gov/sites/default/files/administrative_ruling/FIN-2014-R011.pdf
[107] Id. at 3.
[108] *Application of FinCEN's Regulations to Persons Issuing Physical or Digital Negotiable Certificates of Ownership of Precious Metals*, FIN-2015-R001 (FinCEN Aug. 14, 2015) available at: https://www.fincen.gov/sites/default/files/administrative_ruling/FIN-2015-R001.pdf

[109] Id. at 4.

> as the Company is going beyond the activities of a broker or dealer in commodities and is acting as a convertible virtual currency administrator (with the freely transferable digital certificates being the commodity-backed virtual currency), the Company falls under the definition of money transmitter.[110]

The 2015 administrative ruling does not explain, however, what it means by "freely transferable digital certificates" other than to say the digital certificate could "be linked to the Customer's wallet on the Bitcoin blockchain ledger" allowing the customer to "trade or exchange its percious metals holdings" represented by the digital certificate and held at the Company "by any means it could trade or exchange bitcoin via the rails of the blockchain ledger."

FinCEN does not explain its logic behind this conclusion. Under FinCEN's logic, a traditional vault issuing transferable paper vault receipts would be a money transmitter. In any event, FinCEN's guidance has influenced the Uniform Law Commission's approach to the regulation of virtual currency businesses as discussed below.

Notwithstanding the extensive regulatory developments by other United States federal and state regulators in 2017, FinCEN did not issue any significant new rulings or guidance related to virtual currency businesses in 2017.

V. States

a. New York State Department of Financial Services' "Bitlicense"

On June 24, 2015, the New York State Department of Financial Services (the "DFS") adopted an extensive set of regulations regulating virtual currency businesses in New York State. Under the regulations, any person engaged in a "virtual currency business activity" with a resident of the state is required to apply for and be licensed with the DFS. Licensed virtual currency businesses must have in place certain compliance policies, meet capital requirements set by DFS on a case-by-case basis, meet prescribed customer protection and asset custody standards, keep certain required books and records, be subject to DFS examinations, have implemented an anti-money laundering and cyber security programs, have a business continuity and disaster recovery program in place, and establish and maintain a customer complaints process.[111] To determine if a person is required to be licensed under the DFS's "Bitlicense" regulations requires a three step analysis.

The first question is whether the product being dealt in is a "virtual currency." Section 200.2(p) of the regulations define "virtual currency" to include:

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[110] Id.

[111] 23 NYCRR Part 200 Virtual Currencies available at: http://www.dfs.ny.gov/legal/regulations/adoptions/dfsp200t.pdf

> any type of digital unit that is used as a medium of exchange or a form of digitally stored value. Virtual Currency shall be broadly construed to include digital units of exchange that (i) have a centralized repository or administrator; (ii) are decentralized and have no centralized repository or administrator; or (iii) may be created or obtained by computing or manufacturing effort.[112]

The definition, however, continues to explicitly exclude:

> (1) digital units that (i) are used solely within online gaming platforms, (ii) have no market or application outside of those gaming platforms, (iii) cannot be converted into, or redeemed for, Fiat Currency or Virtual Currency, and (iv) may or may not be redeemable for real-world goods, services, discounts, or purchases.
>
> (2) digital units that can be redeemed for goods, services, discounts, or purchases as part of a customer affinity or rewards program with the issuer and/or other designated merchants or can be redeemed for digital units in another customer affinity or rewards program, but cannot be converted into, or redeemed for, Fiat Currency or Virtual Currency; or
>
> (3) digital units used as part of Prepaid Cards[113]

If a person is handling a virtual currency, the next step in the analysis is whether the person is engaged in a "virtual currency business activity." The regulations define the term "virtual currency business activity" to include:

> the conduct of any one of the following types of activities involving New York or a New York Resident:
>
> > (1) receiving Virtual Currency for Transmission or Transmitting Virtual Currency, except where the transaction is undertaken for non-financial purposes and does not involve the transfer of more than a nominal amount of Virtual Currency;
> >
> > (2) storing, holding, or maintaining custody or control of Virtual Currency on behalf of others;
> >
> > (3) buying and selling Virtual Currency as a customer business;

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[112] 23 NYCRR § 200.2(p).

[113] Id. The regulations define a "Prepaid Card" to mean:

> an electronic payment device that: (i) is usable at a single merchant or an affiliated group of merchants that share the same name, mark, or logo, or is usable at multiple, unaffiliated merchants or service providers; (ii) is issued in and for a specified amount of Fiat Currency; (iii) can be reloaded in and for only Fiat Currency, if at all; (iv) is issued and/or reloaded on a prepaid basis for the future purchase or delivery 5 of goods or services; (v) is honored upon presentation; and (vi) can be redeemed in and for only Fiat Currency, if at all.

23 NYCRR § 200.2(j).

(4) performing Exchange Services as a customer business; or

(5) controlling, administering, or issuing a Virtual Currency.

The development and dissemination of software in and of itself does not constitute Virtual Currency Business Activity.[114]

Understanding the applicability of this definition requires the consideration of the regulations' definition of "Exchange Service" which is defined as:

> the conversion or exchange of Fiat Currency or other value into Virtual Currency, the conversion or exchange of Virtual Currency into Fiat Currency or other value, or the conversion or exchange of one form of Virtual Currency into another form of Virtual Currency.[115]

If after working through these definitions, a person is found to be dealing or handling a virtual currency in a manner that is a virtual currency business activity, the third step of the analysis of whether that person needs to be licensed is whether any of the exemptions from licensure apply. Those exemptions are:

> (1) Persons that are chartered under the New York Banking Law and are approved by the superintendent to engage in Virtual Currency Business Activity; and
>
> (2) merchants and consumers that utilize Virtual Currency solely for the purchase or sale of goods or services or for investment purposes.[116]

A search of the DFS's database shows only four "Bitlicense" holders as of January 5, 2018: Coinbase, Inc., Circle Internet Financial, Inc., XRP II, LLC and bitFlyer USA, Inc. In addition, DFS has granted virtual currency banking charters to Gemini Trust Company and itBit Trust Company.[117]

b. National Conference of Commissioners on Uniform State Laws: The Uniform Regulation of Virtual-Currencies Businesses Act

At its annual conference in July 2017, the National Conference of Commissioners on Uniform State Laws (also known as the Uniform Law Commission "ULC") adopted and approved and recommended for enactment in all the states a Uniform Regulation of Virtual-Currencies Businesses Act ("URVCBA").[118] The URVCBA has much in common with the DFS's Bitlicense

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[114] 23 NYCRR § 200.2(q).
[115] 23 NYCRR § 200.2(d).
[116] 23 NYCRR § 200.3(c).
[117] *DFS Grants Virtual Currency License to Coinbase, Inc.*, Press Release (DFS Jan. 17 2017).
[118] *Uniform Regulation of Virtual-Currencies Businesses Act* (ULC July 2017) available at: http://www.uniformlaws.org/shared/docs/regulation%20of%20virtual%20currencies/URVCBA_Final_2017oct9.pdf

regulatory regime, and several very important and key differences. The commonalities and key differences are outlined below.[119]

i. *Commonalities with the DFS Bitlicense Regulations*

The commonalities begin with the URVCBA's definitions of "virtual currency" and "virtual currency business activity." The definitions are largely the same.[120]

Once a person is captured as engaging in regulated activity, the URVCBA has many of the same requirements and oversight as imposed by the DFS's Bitlicense regime. Under the URVCBA, a person must apply for a license and be approved following a thorough review of the applicant's policies and procedures and background.[121] Once licensed, a person is subject examinations,[122] recordkeeping requirements,[123] maintain mandated compliance programs and procedures including an information security and operational security, a business continuity, a disaster recovery, anti-fraud, anti-money laundering, and prevention of terrorist financing programs.[124]

ii. *Key Differences in the URVCBA from the DFS Bitlicense Regime*

1. *E-Precious Metals Certificates*

One of the few differences between the two sets of definitions is the URVCBA's inclusion in its definition of "virtual currency business activity" of "holding electronic precious metals or electronic certificates representing interests in precious metals on behalf of another person or issuing shares or electronic certificates representing interests in precious metals" which the DFS's definition does not include. The ULC drafting committee decided to include e-precious metals receipts as a result of FinCEN's inclusion of such receipts in its FIN-2015-R001 administrative ruling discussed above.[125] DFS's non-inclusion is understandable as it promulgated its regulations before FinCEN issued its administrative ruling. That said, the ULC's inclusion of e-precious metal certificates seems to miss FinCEN's qualification that such receipts only made the issuer of such receipts a money transmitter if the receipts were "freely transferable."[126] By including all e-precious metals receipts, the URVCBA appears to capture precious metals vaults such as those that are delivery points for COMEX futures contracts as virtual currency businesses because COMEX moved to an electronic receipt program for anti-money laundering purposes. This would appear to be an unintended overreach.

[119] In the interest of full disclosure, the author served as an Observer to the ULC's Drafting Committee for the URVCBA.
[120] *Cf.* 23 NYCRR §§ 200.2(p) & (q) *with* URVCBA §§ 102(23) & (24).
[121] URVCBA Article 2 Licensure.
[122] Id. Article 3 Examination; Examination Fees; Disclosure of Information Obtained During Examination.
[123] Id. § 302.
[124] Id. § 601.
[125] *See* Comment to UVCBRA § 102 at 20.
[126] FIN-2015-R001 at 4.

2. *Exemptions*

The DFS's Bitlicense regulations only provide exemptions from the licensing requirement for entities "chartered under the New York Banking Law" and "merchants and consumers using virtual currency solely for the purchase of goods or services or for investment purposes."[127] Such narrow exemptions appears to lead to a sizeable overreach. For instance, a global investment bank headquartered in Manhattan is likely a regulated national bank with the OCC, a registered broker-dealer with the SEC and FINRA member, and a registered futures commission merchant registered with the CFTC and a member of the NFA. If such a global investment bank wanted to allow its New York customers the ability to hold virtual currency in accounts with the bank, it is unclear why the the DFS's additional supervision would be necessary. Moreover, the DFS does not even exempt its own money transmitter registrants from the Bitlicense license requirement nor relieve its Bitlicense registrants from the need to also register as money transmitters.[128]

The URVCBA avoids a good dea of this egregious regulatory overreach with the sixteen exemptions it provides for. The URVCBA explicitly does not apply to virtual currency activities if those activities are governed by the Electronic Fund Transfer Act of 1978, the Securities Exchange Act of 1934, the Commodity Exchange Act of 1936 and the Blue Sky Laws of the state.[129]

In addition, the URVCBA provides exemptions to activity by:

- The United States, or state, local or foreign governments
- Banks;
- A money transmitter in the state that is approved for virtual currency activity;
- A foreign exchange dealer (as defined under 31 C.F.R. Section 1010.605(f)(1)(iv);
- A payment processor providing processing, clearing or settlement services solely for persons exempt from registration under the Act;
- A connectivity software, a mining computing power provider, a data storage or security provider that does not otherwise provide virtual currency business activity services or provides services to persons exempt from the regulation under the Act;
- A person using virtual currency, including creating, investing, buying or selling, or obtaining virtual currency as payment for the purchase or sale of goods or services, solely: (A) on its own behalf; (B) for personal, family, or household purposes; or (C) for academic purposes;

[127] 23 NYCRR § 200.3(c).
[128] See *DFS Grants Virtual Currency License to Coinbase, Inc.*, Press Release (DFS Jan. 17 2017) (Coinbase is registered as both a Bitlicense registrant and money transmitter).
[129] URVCBA § 103(b).

- An attorney to the extent providing escrow services to a state resident;

- A title insurance company providing escrow services;

- A securities or commodities intermediary does not engage in the ordinary course of business in virtual-currency business activity with or on behalf of a resident in addition to maintaining securities accounts or commodities accounts and is regulated as a securities intermediary or commodity intermediary under federal law, law of this state other than this [act], or law of another state;

- A secured creditor;

- A virtual currency control-services vendor; or

- A person that (A) does not receive compensation from a resident for: (i) providing virtual-currency products or services; or (ii) conducting virtual-currency business activity; or (B) is engaged in testing products or services with the person's own funds.[130]

3. *Reciprocity*

The DFS Bitlicense regime does not provide for any reciprocity for persons similarly registered in other states. The URVCBA does. Section 201 prohibits a person from engaging in virtual currency business activity within the state unless, among other things, the person is "licensed in another state to conduct virtual-currency business activity by a state with which this state has a reciprocity agreement and has qualified under Section 203."[131] Section 203 provides for two alternative reciprocity procedures. Alternative A requires a person registered in another state to file an application in the second state in which it wishes to engage in virtual currency business activity with a scaled down set of backup documentation compared to the full-scale application process set forth in Section 202. Alternative B is more akin to a notice registration process, however, it still requires the state receiving the registrant from another state to determine "that the state in which the person is licensed has in force laws regulating virtual-currency business activity which are substantially similar to, or more protective of rights of users than, this Act."[132]

The reciprocity provision, although not as streamlined as some would have liked, does address some of the concern that in part motivated the OCC fintech national banking charter to try to ease the regulatory burden of doing business across a number of state borders.

4. *"On Ramp"*

The DFS Bitlicense regime does not provide for any de minimis exemption, introductory or provisional status or more generally an "on ramp" approach to a fully registerd status. The

[130] Id.
[131] Id. § 201(2).
[132] Id. § 203(a)(1) (Alternative B).

URVCBA drafting committee was conscious of the fact that virtual currency businesses are developing and evolving rapidly. As a significant area of technological innovation, the drafting committee wanted, on the one hand, not to stifle new, start-up enterprises with the imposition of extensive regulation, while, on the other hand, having in place some customer protections. The result of their attempt to balance these concerns was an "on-ramp" to becoming fully regulated. The on-ramp consists of a complete exemption from licensure and regulation for businesses conducting $5,000 or less on an annual basis in virtual currency business with residents of the state.[133] For businesses conducting over $5,000 but less than $35,000 on an annual basis with residents of the state, the Act provides for a provisional registration process.[134] Although labelled "provisional," the registration process requires of provisional registrants much of what is required of fully-licensed businesses, such as having a minimum net worth or reserves, and having the same suite of policies and procedures.[135]

A number of commenters felt that these on-ramp provisions did not reflect the consensus at the last drafting meeting. They felt that the dollar thresholds should be more nuanced based on the type of virtual currency business activity involved. For long term custodial activities, they thought the threshold should be lower, but for short-term transactional activities the threshold should be higher. In their view, the *de minimis* exemption should be set at $5,000 or less for long-term custodial activities, but for short-term transactional activity the threshold should be $15,000. For the provisional registration, they argue that for long-term custodial activity the threshold should be $35,000 but for short-term transactional activity the threshold should be $100,000. In addition, some noted that the provisional registration process was complicated and did not require all that much less than the requirements for full-fledged registered firms.[136]

Regarding the on-ramp, the critics have good points. There should be different thresholds for different activities. The dollar value of short-term transactional activity is likely to add up faster than long-term custodial activities while posing less of a threat to customer protection. Custody always poses the threat of embezzlement which can easily lead to the total loss of customer funds, while misconduct in exchanging virtual currencies poses the risks of mispricing or front running abuses. Although these are bad, they usually do not lead to the complete loss of customer funds – rather the risk is more likely limited to the customer getting a worse price than the customer should have gotten. Given the different levels of risk involved, the Act should set the thresholds for exemption and provisional registration at different amounts based on the activity involved.[137]

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[133] Id. § 103(8).
[134] Id. § 207 Registration in Lieu of License.
[135] Id.
[136] See, e.g., Electronic Frontier Foundation Letter dated October 25, 2016 to the Drafting Committee available at: http://www.uniformlaws.org/shared/docs/regulation%20of%20virtual%20currencies/2016oct_RVCBA_Comments_EFF_Williams.pdf; other comments are available at: http://www.uniformlaws.org/Committee.aspx?title=Regulation%20of%20Virtual%20Currency%20Businesses%20Act
[137] Katherine Cooper, *Uniform Regulation for Virtual Currency Businesses: Coming to a State Near You*, (Coindesk July 2, 2017) available at: https://www.coindesk.com/uniform-regulation-virtual-currency-businesses-coming-state-near/

iii. *Controversial Effort to Address UCC Issues*

Some of the Members of, and Observers to, the URVCBA drafting committee advocated to have the Act address the U.C.C. issues arising from U.C.C. Article 9's treatment of virtual currency as a general intangible.[138] As discussed above in connection with the LedgerX ruleset,

> [b]ecause Article 9 has *no* negotiation rule for the *buyers* of general intangibles that are subject to a perfected security interest . . . . once a security interest in a general intangible is perfected, it survives even after multiple transfers to third parties.[139]

The proposed "fix" was to require virtual currency businesses under the Act to include in customer agreement documents an agreement that opts in to the U.C.C. Article 8 scheme. To accomplish that the parties would agree that the virtual currency the business holds on behalf of a customer is a "financial asset," held in a "securities account" by the virtual currency business which itself is a "securities intermediary."[140] By opting in to the Article 8 scheme:

> If licensee transfers a virtual currency as instructed by the user, the licensee generally cannot be held liable to an adverse claimant to the virtual currency for the transfer unless the licensee acted in collusion with the wrongdoer in violating the rights of the adverse claimant.[141]

This proposal stirred significant controversy among the drafting committee's participants.[142] Ultimately, the drafting committee decided to table the Article 8 proposal and put in a follow on recommended uniform act.

The failure to include the "Article 8 fix" may have been a lost opportunity. The concerns that mandating UCC Article 8 law invokes "a distinct body of law not well-developed in our field"[143] overlooks the fact that the application of any other body of law, such as bailment law, is not well-developed either. Virtual currency is simply too new for there to be much case law to have developed. The advantage of Article 8 is it is uniform is across the 50 states whereas other

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[138] Memorandum from Edwin E. Smith to Members of, and Advisers and Observers to, the Drafting Committee on the Uniform Regulation of Virtual Currencies Businesses Act (Feb. 13, 2017) ("Smith Memo") available at: http://www.uniformlaws.org/shared/docs/regulation%20of%20virtual%20currencies/2017feb13_RVCBA_Memo%20re%20UCC%20Article%208_Smith.pdf

[139] J. Schroeder, *Bitcoin and the Uniform Commercial Code* (Aug. 22, 2015) at 21 (emphasis in original).

[140] Smith Memo.

[141] Id. a 8.

[142] Coinbase Letter dated February 28, 2017 at 10 available at: http://www.uniformlaws.org/shared/docs/regulation%20of%20virtual%20currencies/2017feb28_RVCBA_Comments_Coinbase.pdf; Coinbase Letter dated May 4, 2017 available at: http://www.uniformlaws.org/shared/docs/regulation%20of%20virtual%20currencies/2017may2_RVCBA_Coinbase_Comments.pdf; Coin Center Letter dated March 1, 2017 available at: http://www.uniformlaws.org/shared/docs/regulation%20of%20virtual%20currencies/2017mar1_RVCBA_Comments_CoinCenter.pdf

[143] Coinbase May 4, 2017 Letter at 2.

bodies of law such as the common law of bailment are not. So as applied in other contexts, UCC Article 8 is better developed than the alternatives.

iv. *Both the DFS Bitlicense Regime and the URVCBA Do not Explicitly Address Market Conduct Standards*

Although both the DFS's Bitlicense regime and the URVCBA explicitly include virtual currency "exchangers," neither expressly articulate standards relating to market conduct. So both regimes seek to regulate virtual currency exchanges, but neither speaks to issues such as front-running customer orders, market manipulation, wash trading, or money passes to list just a few market conduct issues.[144]

This lack of market conduct standards seems to be a glaring omission from both sets of regulatory regimes. In fact, as discussed above, it was one of the reasons the SEC gave for rejecting the Bats/Winklevoss Bitcoin Trust ETP application. Although the SEC acknowledged that the Gemini Exchange was regulated by the NYSDFS, it observed that the NYSDFS's regulations do not require virtual currency businesses registered with it to have the kinds of safeguards national securities exchanges are mandated to have to which are

> designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in regulating, clearing, settling, processing information with respect to, and facilitating transactions in securities, to remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general, to protect investors and the public interest.[145]

CONCLUSION

It will be interesting to see what developments will occur in 2018. Will some of the 2017 regulatory developments be re-examined? Will more comprehensive regulation of virtual currencies take place at the federal level? Whatever regulatory developments do await us in the new year, they will no doubt continue the old story of the regulators trying to balance customer protection with innovation and competition – the yin and yang of regulation.

[144] URVCBA § 601(a)(4) does require registrants to have an "antifraud program" in place but does not provide any detail regarding what should be included in such a program.
[145] Winklevoss Order at 34 quoting 15 U.S.C. § 78f(b)(5).

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AMERICAN BAR ASSOCIATION MEETING – NEW PRODUCTS AND FINANCIAL TECHNOLOGY

Crypto-commodities

Analysis of Bitcoin as a commodity

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1. INTRODUCTION

1.1 Bitcoin is a decentralized virtual currency that operates using a distributed public ledger called a blockchain.[1] Bitcoin refers both to the peer-to-peer network of computers that run Bitcoin client software, as well as its unit of account that can be transferred among parties on the network. To avoid confusion, references to 'bitcoin' are to Bitcoin's units of account within this paper.

1.2 First, this paper sets out an outline of Bitcoin's status under the Commodity Exchange Act. Second, it discusses the potential authority of the CFTC over Bitcoin, particularly by reference to the nascent, but growing, derivatives market. Third, it considers some of the unique risks associated with Bitcoin as they apply to its legal classification as a commodity.

2. BITCOIN AS A COMMODITY

2.1 In September 2015, the CFTC has determined that bitcoin is a commodity under Section 1a(9) of the Commodity Exchange Act (the **CEA**). In its enforcement order against *Derivabit*, the CFTC confirmed that "Bitcoin and other virtual currencies are encompassed in the definition and properly defined as commodities." [2] The CFTC has taken action with respect to bitcoin commodity interests in its orders against *TeraExchange*[3] in 2015 and *Bitfinex* in 2016.[4] More recently in September 2017, in its complaint against *Gelfman*, it took action against alleged abuses in the bitcoin spot market for the first time and charged operators of an alleged Ponzi scheme with fraud, misappropriation and issuing false account statements in violation of Section 6(c) of the CEA.[5] The CFTC has also allegedly requested information from a cryptocurrency exchange in relation to an alleged 'flash crash' which occurred on June 21, 2017, indicating that the CFTC is continuing to monitor behavior within the virtual currency markets.[6] On October 17, 2017, the CFTC's FinTech innovation arm LabCFTC released a primer on virtual currencies. The primer confirms that the CFTC's jurisdiction is implicated when a virtual currency is used in a derivatives contract, or if there is fraud or manipulation involving a virtual currency traded in interstate commerce (i.e. the spot market).[7]

2.2 While Bitcoin's status as a commodity does not immediately impact the trading of Bitcoin on spot markets from a regulatory perspective, there has been a growth in more heavily regulated derivative products based on Bitcoin. As a general position, the CFTC primarily regulates the markets of commodity interests, not the market of the underlying physical commodities themselves.[8] Commodity

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[1] *See* Satoshi Nakamoto, *'Bitcoin: A Peer-to-Peer Electronic Cash System'* (2008). Available at https://bitcoin.org/bitcoin.pdf.

[2] *United States of America Before the Commodity Futures Trading Commission In the Matter of Coinflip Inc., d/b/a Derivabit, and Francisco Riordan, Respondents*. Order Instituting Proceedings Pursuant to Sections 6(c) and 6(d) of the Commodity Exchange Act, Making Findings and Imposing Remedial Sanctions. CFTC Docket No. 15-29, September 17, 2015.
Available at: http://www.cftc.gov/idc/groups/public/@lrenforcementactions/documents/legalpleading/enfcoinfliprorder09172015.pdf.

[3] *United States of America Before the Commodity Futures Trading Commission In the Matter of TeraExchange LLC Respondent*. Order Instituting Proceedings Pursuant to Sections 6(c) and 6(d) of the Commodity Exchange Act, as amended, Making Findings and Imposing Remedial Sanctions. CFTC Docket No. 15-33, September 24, 2015.
Available at: http://www.cftc.gov/idc/groups/public/@lrenforcementactions/documents/legalpleading/enfteraexchangeorder92415.pdf.

[4] *United States of America Before the Commodity Futures Trading Commission In the Matter of BFXNA Inc. d/b/a BITFINEX, Respondent*. Order Instituting Proceedings Pursuant to Sections 6(c) and 6(d) of the Commodity Exchange Act, as amended, Making Findings and Imposing Remedial Sanctions. CFTC Docket No. 16-19, June 2, 2016 (the **Bitfinex Order**).
Available at: http://www.cftc.gov/idc/groups/public/@lrenforcementactions/documents/legalpleading/enfbfxnaorder060216.pdf.

[5] *Commodity Futures Trading Commission v. Gelfman Blueprint, Inc. and Nicholas Gelfman*, Case Number 17-7181, United States District Court, Southern District of New York. Complaint filed September 21, 2017.
Available at: http://www.cftc.gov/idc/groups/public/@lrenforcementactions/documents/legalpleading/enfgelfmancomplaint09212017.pdf.

[6] Lily Katz and Matt Robinson, '*Cryptocurrency Flash Crash Draws Scrutiny from Watchdog*', Bloomberg.com, October 2, 2017.
Available at: https://www.bloomberg.com/news/articles/2017-10-02/cryptocurrency-flash-crash-is-said-to-draw-scrutiny-from-cftc

[7] See LabCFTC, CFTC Primer on Virtual Currencies, October 17, 2017.
Available at: http://www.cftc.gov/idc/groups/public/documents/file/labcftc_primercurrencies100417.pdf.
Note that the CFTC Primer is educational, it is "not intended to describe the official policy or position of the CFTC, or to limit the CFTC's current or future positions or actions."

[8] CEA Section 2a(1), 7 U.S. Code § 2.

interests generally extend to futures, forwards, swaps and other forms of derivative products linked to physical commodities.[9] Physical commodities in the spot market (i.e. traded for immediate delivery) are generally not within the scope of the CFTC's regulatory oversight. Nonetheless, the CFTC does have the authority to enforce wrongful conduct in markets for physical commodities,[10] although, as a practical matter, the CFTC typically exercises that enforcement authority when there is a nexus to an actively traded commodity interest. The growth of derivative products based on Bitcoin has primarily occurred in 2017, first by relatively new startups, followed by the entrance of established exchanges in the latter half of 2017.

2.3 On July 6, 2017, LedgerX was granted registration as a Swap Execution Facility (**SEF**).[11] This approval was preceded by two years of provisional registration status and LedgerX is now one of only two registered SEFs offering digital currency products in the United States (TeraExchange LLC being the only other registrant to date). On July 24, 2017, LedgerX's application to register as a Derivatives Clearing Organization (**DCO**) was approved. Alongside its registration, LedgerX has been granted exemptive relief from many of the requirements of the Part 39 regulations that normally apply to DCOs on the basis of its fully-collateralized clearing model and initial scope of participants. LedgerX's use of a fully-collateralized clearing model pursuant to which each buyer and seller has to provide the full amount of its potential future obligations upfront means many of the Part 39 regulations, which are aimed at protecting a CCP against defaults of its participants, are addressed by the fact that 100% of the exposure is already collateralized upfront.[12] Further simplifying LedgerX's compliance requirements is that it is initially only clearing trades on behalf of its own SEF and does not permit customer clearing.[13]

2.4 On December 1, 2017, the Commodity Futures Trading Commission (the **CFTC**) announced that the Chicago Mercantile Exchange Inc. (**CME**) and the CBOE Futures Exchange (**CBOE**) self-certified new contracts for Bitcoin futures products, while the Cantor Exchange (**Cantor**) self-certified a new contract for Bitcoin binary options.[14] All three exchanges are designated contract markets (**DCMs**) and are authorized to trade futures products. The CBOE began trading Bitcoin futures on December 10, 2017, the CME began to trade Bitcoin futures on December 18, 2017. A start date for Cantor's options trading is expected to be announced shortly.

2.5 While the registration of LedgerX as a DCO and SEF, and TeraExchange as a SEF, was important for institutional investors interested in gaining exposure to Bitcoin through derivative products, the introduction of futures contracts on DCMs allows both institutional and retail investors to gain exposure to Bitcoin derivatives, significantly broadening the scope of the Bitcoin derivatives market. This therefore has a concomitant impact for the role of the CFTC in regulating such a market.

3. THE RISK OF A 'FORK'

3.1 While a commodity, Bitcoin has a unique feature for which there is no readily available parallel in established commodities. In particular, the blockchain on which Bitcoin is operated can be 'forked' or 'split' into multiple blockchains. This can create different blockchains from the point of the fork

[9] CEA Section 1a(9), 7 U.S. Code § 1a.

[10] CEA Sections 6c, 9a(2) and Part 180 of the CFTC's regulations give the CFTC the authority, in relevant part, over violations with respect to "any commodity in interstate commerce." 7 U.S. Code §§ 9, 13, and 17 C.F.R. § 180, 76 F.R. 41398.

[11] A SEF is a regulated facility, trading system or platform in which multiple participants have the ability to execute or trade swaps by accepting bids and offers made by multiple participants in the facility.

[12] For further detail on the proposed collateralization model, see LedgerX's narrative summary of their clearing activities available at: http://www.cftc.gov/idc/groups/public/@otherif/documents/ifdocs/ledgerxdcoappexa-3.pdf

[13] See CFTC Letter No 17-35: http://www.cftc.gov/idc/groups/public/@lrlettergeneral/documents/letter/17-35.pdf and DCO Exhibit A-3: http://www.cftc.gov/idc/groups/public/@otherif/documents/ifdocs/ledgerxdcoappexa-3.pdf

[14] *See* CFTC Press Release pr7654-17, *CFTC Statement on Self-Certification of Bitcoin Products by CME, CFE and Cantor Exchange*. Available at http://www.cftc.gov/PressRoom/PressReleases/pr7654-17.

onwards, resulting in two separate assets. Those who held Bitcoin at a point in time before the fork would therefore have the potential to access two separate versions of Bitcoin and trade them independently. How interconnected these two assets would be would depend on the circumstances of a fork, and one possible risk would be the potential for something called 'replay attacks' to occur (attempting to broadcast transactions intended for only one blockchain on to the other blockchain).[15]

3.2 For those who hold and trade Bitcoin directly, there are technical solutions available and wallet software can generally be adapted to support new forks of cryptocurrency.

3.3 However, for those who hold and trade Bitcoin on Bitcoin exchanges, the right to receive the 'new' asset arising from a fork is generally governed by the contract in place between the user and the exchange. Most exchanges generally reserve the right to decide whether or not to support a new asset, and disclaim contractual responsibility with respect to it. To date, if a fork is significant enough and has sufficient popularity, the majority of retail exchanges have chosen to support the new asset[16]

3.4 Similarly, the approaches taken by the entities offering derivative contracts linked to Bitcoin are fundamentally contractual, and are considered in the following section.

4. MARKET MANIPULATION

4.1 There are two particular provisions of the CEA that grant the CFTC broad authority to take action against persons engaged in forms of market abuse, including manipulation and fraud, Sections 6(c) and 9(a)2. Commission Regulation 180 (i.e. Part 180) codifies Section 6(c).[17] The relevant provisions of Sections 6(c) and 9(a)2 are set out in Appendix 1. The Part 180 regulations are set out in Appendix 2 for reference. Section 6(c) of the CEA provides for a prohibition regarding fraud based manipulation.[18] Section 9(a)2 of the CEA provides that it is a felony to engage in price manipulation.[19]

4.2 Manipulation under the CEA is the "intentional exaction of a price determined by forces other than supply or demand."[20] The following elements are necessary grounds under a Section 9(a)2 claim, which must be met by a preponderance of the evidence, to show a successful manipulation has occurred:

(a) the [person(s)] had the ability to influence market prices;

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[15] Replay protection refers to a process whereby 'replay attacks' are prevented at a protocol level following a fork. *See* Aaron van Wirdum, '*SegWit2X and the Case for Strong Replay Protection (And Why It's Controversial)*', Bitcoin Magazine, September 22, 2017. Available at: https://bitcoinmagazine.com/articles/segwit2x-and-case-strong-replay-protection-and-why-its-controversial/. Because the same addresses and transaction history exist on both chains following a fork, a transaction that is broadcast to one network may also be reproduced on the other. This could result in a user sending bitcoin on one chain, but also unintentionally sending bitcoin on the other chain. It is possible for users to take certain technical steps to avoid that scenario, such as 'opt-in protection', but those solutions are not straightforward or easy to implement for the average user. *See* for example responses to btc 1/bitcoin merge branch for opt-in replay protection, Github.com. Available at: https://github.com/btc1/bitcoin/commit/a3c41256984bf11d95a560ae89c0fcbadfbe73dc. Instead, one of the protocols can implement 'replay protection' to ensure that transactions are valid on one chain only. However replay protection is generally considered to best incorporated at the protocol level, therefore automatically operating without further action by the user.
In August 2017, a group of nodes and miners implemented a consensus change to Bitcoin creating a forked version of Bitcoin called Bitcoin Cash. *See* Alyssa Hertig, '*Bitcoin Cash: Why It's Forking the Blockchain And What That Means*', Coindesk.com, July 26, 2017. Available at: https://www.coindesk.com/coindesk-explainer-bitcoin-cash-forking-blockchain/. Bitcoin Cash developers implemented a form of replay protection within the Bitcoin Cash protocol. *See* BitcoinCash.org, '*How is transaction replay being handled between the new and old blockchain?*'. Available at: https://www.bitcoincash.org/. Forks of other economically significant blockchains, such as the Ethereum blockchain in 2016, have also implemented forms of replay protection. *See* Alyssa Hertig, '*Ethereum's Two Ethereums Explained*', Coindesk.com, July 28, 2016. Available at: https://www.coindesk.com/ethereum-classic-explained-blockchain/. The Bitcoin hard fork planned for November 2017, which was ultimately abandoned, did not intend to have strong replay protection.

[16] See, for example, Coinbase.com's user agreement: https://www.coinbase.com/legal/user_agreement?locale=en-US

[17] 17 C.F.R. § 180, 76 F.R. 41398. See also the CFTC's final rule release and supplementary information, July 14, 2011. Available at: http://www.cftc.gov/idc/groups/public/@lrfederalregister/documents/file/2011-17549a.pdf

[18] 7 U.S. Code § 9.

[19] 7 U.S. Code § 13.

[20] *Frey v. CFTC*, 931 F.2d 1171, 1175 (7th Cir. 1991).

(b) the [person(s)] specifically intended to do so;

(c) artificial prices existed; and

(d) the [person(s)] caused an artificial price.[21]

4.3 Notwithstanding these prescriptive limbs, the test for manipulation must also be considered in a practical and pragmatic manner: "[t]he methods and techniques of manipulation are limited only by the ingenuity of man. The aim must be therefore to discover whether conduct has been intentionally engaged in which has resulted in a price which does not reflect basic forces of supply and demand."[22]

4.4 Bitcoin is, like many commodities, potentially susceptible to price manipulation. However, one unique and underexplored question is whether a fork, under certain specific circumstances, could give rise to a market manipulation claim under the CEA. Although the facts and circumstances around a fork may vary enormously, and depend on a variety of causes, factors and actions taken by a variety of different stakeholders, it seems possible that a manipulation claim could theoretically arise within the context of a fork if, for example, a majority of miners resolved to act in concert to fork Bitcoin in order to implement a protocol change that would benefit themselves, and do so in manner that attacked the other chain (for example by refusing to implement replay protection) thereby rendering the other chain almost unusable, with the result that users would be compelled to use only the forked chain.

5. FUTURES CONTRACTS' PROPOSED PROCEDURES TO DEAL WITH A FORK IN THE BITCOIN BLOCKCHAIN

5.1 For a DCM to list a particular commodity futures contract, the exchange must either (i) submit a written self-certification to the CFTC that the contract complies with the CEA and CFTC regulations, or (ii) voluntarily submit the contract for CFTC approval.[23] In accordance with accepted listing procedures, the CME, [24] the CBOE[25] and Cantor[26] submitted written self-certifications to the CFTC stating that their proposed futures contracts comply with CEA and CFTC regulations.

5.2 The CME contract references its price from CME's CF Bitcoin Reference Rate, which has been published since November 2016. It is calculated by Crypto Facilities, a financial services firm for digital assets. It is published once per day and is governed by an oversight committee.[27] The oversight committee charter and standards are publicly available on the CME website. The oversight committee is comprised of a Crypto Facilities representative, two (2) representatives from CME Group, and at least two (2) independent bitcoin experts. The rate itself is drawn from a number of constituent exchanges (currently four: Bitstamp, GDAX, itBit and Kraken).[28] The exchanges are reviewed by reference to specified criteria.[29]

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[21] *In re Cox*, [1986-1987 Transfer Binder] Comm. Fut. L. Rep. (CCH) ~ 23,786 at 34,061 (CFTC July 15, 1987).
[22] *Cargill v. Hardin,* 452 F.2d 1154, 1163 (8th Cir. 1971).
[23] 17 C.F.R. § 38.4.
[24] CFTC Regulation 40.2(a) Certification. Notification Regarding the Initial Listing of the Bitcoin Futures Contract. CME Submission No. 17-417. Available at http://www.cmegroup.com/market-regulation/rule-filings/2017/12/17-417.pdf
[25] CBOE Futures Exchange, LLC Product Certification for Bitcoin Futures Submission Number CFE-2017-018. Available at http://cfe.cboe.com/publish/CFErulefilings/SR-CFE-2017-018.pdf .
[26] Cantor Futures Exchange, L.P., New Contract Submission 2017-6, Cantor Futures Exchange Bitcoin Swap Contract, December 1, 2017. Available at http://regulatory.cantorexchange.com/PDFs/NTPs/CX-Bitcoin-Contract---40-2-Submission.aspx .
[27] The oversight committee's charter and its meetings' minutes are publicly available. Available at: http://www.cmegroup.com/trading/cf-bitcoin-reference-rate.html
[28] CFTC Regulation 40.2(a) Certification, at 5.
[29] *Id.*

5.3 In the CME's certification, the CME stated that in the event of a hard fork or any other split of the Bitcoin network, the CME will have discretion to determine what actions it should take "in consultation with market participants to align Bitcoin Futures position holder exposures with cash market exposures as appropriate."[30] It highlighted that one appropriate action could be to provide cash adjustments or assigning newly listed futures or options contract positions to those who are already Bitcoin Futures position holders.[31]

5.4 CME's new Chapter 350 outlines the specifications of its Bitcoin Futures contract, including the CF Bitcoin Reference Rate price. In particular, clause 35005 outlines the 'policy on divisions of bitcoin asset':

"In the event that a hard fork, user activated soft fork, or other process that results in a division or split of bitcoin into multiple non-fungible assets is expected, the Exchange shall have the discretion to take action in consultation with market participants to align Bitcoin Futures position holder exposures with cash market exposures as appropriate. Appropriate action could include providing cash adjustments or assigning newly listed futures or options contract positions to Bitcoin Futures position holders."

5.5 In distinction to the CME contract, the CBOE contract does not reference the price of multiple exchanges, but rather references an auction price of Bitcoin on a single exchange, the Gemini exchange.[32]

5.6 In the event of a fork, the CBOE's policy is therefore to follow the form of Bitcoin that is traded on the Gemini Exchange.[33] As part of this process, Gemini will support the Bitcoin network that has the greatest cumulative computational difficulty for the forty-eight hour period following a given fork, which the CBOE defines as the "total threshold number of hash attempts required to mine all existing blocks in the respective blockchain, accounting for potential differences in relative hash difficulty."[34] If, however, Gemini cannot determine which Bitcoin network has had the greatest cumulative computational difficulty over the forty-eight hour period following a given fork, or if Gemini decides that this is not a reasonable criterion for making the determination, then Gemini, and therefore CBOE, will support the Bitcoin network that Gemini determines is most likely to be supported by a greater number of users and miners.[35]

5.7 Cantor's methodology is less defined that that of CBOE or CME. It will calculate the Bitcoin reference price for its futures contracts by reference to "publicly available bitcoin price sources, market analytics such as bitcoin price arbitrage matrices and the Exchange's own bids, offers and traded prices."[36]

5.8 In the event of a fork, Cantor's stated position is that a decision to fork the Bitcoin network would be discussed well in advance of any fork actually happening. [37] This would provide market participants with enough time to adjust their positions in anticipation of the upcoming fork.[38] Cantor have therefore taken the position that it is reasonable to assume that forward dated contracts would respond to such decisions and change accordingly.[39] In certain circumstances Cantor would have to modify or create rules to address certain circumstances, but that would be determined when such circumstance presented itself.[40]

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[30] CFTC Regulation 40.2(a) Certification, at 11, Section 35005.
[31] *Id*.
[32] CBOE Futures Exchange, LLC Product Certification for Bitcoin Futures Submission Number CFE-2017-018, at 2.
[33] CBOE Futures Exchange, LLC Product Certification for Bitcoin Futures Submission Number CFE-2017-018, at 5.
[34] *Id*.
[35] *Id*.
[36] Cantor Futures Exchange, L.P., New Contract Submission 2017-6, at 5.
[37] Cantor Futures Exchange, L.P., New Contract Submission 2017-6, at 3.
[38] *Id*.
[39] *Id*.

5.9 Lastly, LedgerX has taken a slightly different position to that of CME, CBOE and Cantor, and note that LedgerX does not only settle cash-linked contracts.[41] In its policy on hard forks,[42] LedgerX has stated that it would evaluate each hard fork on a case by case basis to determine if LedgerX will support the fork or not. Two of the main criteria for such determination would be the indicated marketplace support for such a fork, as well as the feasibility and security of the new forked coin.[43] However, even if both of these criteria lean towards LedgerX supporting the hard fork, if there is any regulatory "gray zone" surrounding the fork (for example the new coin potentially resembles a security), then LedgerX will not support the fork.[44]

[40] *Id*.
[41] LedgerX, 'the easy way and the right way'. Available at: https://ledgerx.com/the-easy-way-and-the-right-way/
[42] LedgerX's Policy Framework for Hard Forks. Available at- https://ledgerx.com/ledgerxs-policy-framework-for-hard-forks/
[43] *Id*.
[44] *Id*.

APPENDIX 1

7 U.S. CODE § 9 - PROHIBITION REGARDING MANIPULATION AND FALSE INFORMATION

(1) **Prohibition against manipulation** It shall be unlawful for any person, directly or indirectly, to use or employ, or attempt to use or employ, in connection with any swap, or a contract of sale of any commodity in interstate commerce, or for future delivery on or subject to the rules of any registered entity, any manipulative or deceptive device or contrivance, in contravention of such rules and regulations as the Commission shall promulgate by not later than 1 year after July 21, 2010, provided no rule or regulation promulgated by the Commission shall require any person to disclose to another person nonpublic information that may be material to the market price, rate, or level of the commodity transaction, except as necessary to make any statement made to the other person in or in connection with the transaction not misleading in any material respect.

(A) **Special provision for manipulation by false reporting**

Unlawful manipulation for purposes of this paragraph shall include, but not be limited to, delivering, or causing to be delivered for transmission through the mails or interstate commerce, by any means of communication whatsoever, a false or misleading or inaccurate report concerning crop or market information or conditions that affect or tend to affect the price of any commodity in interstate commerce, knowing, or acting in reckless disregard of the fact that such report is false, misleading or inaccurate.

(B) **Effect on other law**

Nothing in this paragraph shall affect, or be construed to affect, the applicability of section 13(a)(2) of this title.

(C) **Good faith mistakes**

Mistakenly transmitting, in good faith, false or misleading or inaccurate information to a price reporting service would not be sufficient to violate paragraph (1)(A).

(2) **Prohibition regarding false information**

It shall be unlawful for any person to make any false or misleading statement of a material fact to the Commission, including in any registration application or any report filed with the Commission under this chapter, or any other information relating to a swap, or a contract of sale of a commodity, in interstate commerce, or for future delivery on or subject to the rules of any registered entity, or to omit to state in any such statement any material fact that is necessary to make any statement of a material fact made not misleading in any material respect, if the person knew, or reasonably should have known, the statement to be false or misleading.

(3) **Other manipulation**

In addition to the prohibition in paragraph (1), it shall be unlawful for any person, directly or indirectly, to manipulate or attempt to manipulate the price of any swap, or of any commodity in interstate commerce, or for future delivery on or subject to the rules of any registered entity.

(4) **Enforcement**

(A) **Authority of Commission**

If the Commission has reason to believe that any person (other than a registered entity) is violating or has violated this section, or any other provision of this chapter (including any rule, regulation, or order of the Commission promulgated in accordance with this section or any other provision of this chapter), the Commission may serve upon the person a complaint.

(B) **Contents of complaint** A complaint under subparagraph (A) shall—

(i) contain a description of the charges against the person that is the subject of the complaint; and

(ii) have attached or contain a notice of hearing that specifies the date and location of the hearing regarding the complaint.

(C) **Hearing** A hearing described in subparagraph (B)(ii)—

(i) shall be held not later than 3 days after service of the complaint described in subparagraph (A);

(ii) shall require the person to show cause regarding why—

(I) an order should not be made—

(aa) to prohibit the person from trading on, or subject to the rules of, any registered entity; and

(bb) to direct all registered entities to refuse all privileges to the person until further notice of the Commission; and

(II) the registration of the person, if registered with the Commission in any capacity, should not be suspended or revoked; and

(iii) may be held before—

(I) the Commission; or

(II) an administrative law judge designated by the Commission, under which the administrative law judge shall ensure that all evidence is recorded in written form and submitted to the Commission.

(5) **Subpoena**

For the purpose of securing effective enforcement of the provisions of this chapter, for the purpose of any investigation or proceeding under this chapter, and for the purpose of any action taken under section 16(f) of this title, any member of the Commission or any Administrative Law Judge or other officer designated by the Commission (except as provided in paragraph (7)) may administer oaths and affirmations, subpoena witnesses, compel their attendance, take evidence, and require the production of

any books, papers, correspondence, memoranda, or other records that the Commission deems relevant or material to the inquiry.

(6) **Witnesses**

The attendance of witnesses and the production of any such records may be required from any place in the United States, any State, or any foreign country or jurisdiction at any designated place of hearing.

(7) **Service**

A subpoena issued under this section may be served upon any person who is not to be found within the territorial jurisdiction of any court of the United States in such manner as the Federal Rules of Civil Procedure prescribe for service of process in a foreign country, except that a subpoena to be served on a person who is not to be found within the territorial jurisdiction of any court of the United States may be issued only on the prior approval of the Commission.

(8) **Refusal to obey**

In case of contumacy by, or refusal to obey a subpoena issued to, any person, the Commission may invoke the aid of any court of the United States within the jurisdiction in which the investigation or proceeding is conducted, or where such person resides or transacts business, in requiring the attendance and testimony of witnesses and the production of books, papers, correspondence, memoranda, and other records. Such court may issue an order requiring such person to appear before the Commission or member or Administrative Law Judge or other officer designated by the Commission, there to produce records, if so ordered, or to give testimony touching the matter under investigation or in question.

(9) **Failure to obey**

Any failure to obey such order of the court may be punished by the court as a contempt thereof. All process in any such case may be served in the judicial district wherein such person is an inhabitant or transacts business or wherever such person may be found.

(10) **Evidence** On the receipt of evidence under paragraph (4)(C)(iii), the Commission may—

(A) prohibit the person that is the subject of the hearing from trading on, or subject to the rules of, any registered entity and require all registered entities to refuse the person all privileges on the registered entities for such period as the Commission may require in the order;

(B) if the person is registered with the Commission in any capacity, suspend, for a period not to exceed 180 days, or revoke, the registration of the person;

(C) assess such person—

(i) a civil penalty of not more than an amount equal to the greater of—

(I) $140,000; or

(II) triple the monetary gain to such person for each such violation; or

(ii) in any case of manipulation or attempted manipulation in violation of this section or section 13(a)(2) of this title, a civil penalty of not more than an amount equal to the greater of—

(I) $1,000,000; or

(II) triple the monetary gain to the person for each such violation; and

(D) require restitution to customers of damages proximately caused by violations of the person.

(11) **Orders**

(A) **Notice** The Commission shall provide to a person described in paragraph (10) and the appropriate governing board of the registered entity notice of the order described in paragraph (10) by—

(i) registered mail;

(ii) certified mail; or

(iii) personal delivery.

(B) **Review**

(i) In general

A person described in paragraph (10) may obtain a review of the order or such other equitable relief as determined to be appropriate by a court described in clause (ii).

(ii) Petition To obtain a review or other relief under clause (i), a person may, not later than 15 days after notice is given to the person under clause (i), file a written petition to set aside the order with the United States Court of Appeals—

(I) for the circuit in which the petitioner carries out the business of the petitioner; or

(II) in the case of an order denying registration, the circuit in which the principal place of business of the petitioner is located, as listed on the application for registration of the petitioner.

(C) **Procedure**

(i) Duty of clerk of appropriate court

The clerk of the appropriate court under subparagraph (B)(ii) shall transmit to the Commission a copy of a petition filed under subparagraph (B)(ii).

(ii) Duty of Commission

In accordance with section 2112 of title 28, the Commission shall file in the appropriate court described in subparagraph (B)(ii) the record theretofore made.

(iii) Jurisdiction of appropriate court

Upon the filing of a petition under subparagraph (B)(ii), the appropriate court described in subparagraph (B)(ii) may affirm, set aside, or modify the order of the Commission.

7 U.S. CODE § 13(A) - VIOLATIONS GENERALLY

(a) **Felonies generally** It shall be a felony punishable by a fine of not more than $1,000,000 or imprisonment for not more than 10 years, or both, together with the costs of prosecution, for:

(1) Any person registered or required to be registered under this chapter, or any employee or agent thereof, to embezzle, steal, purloin, or with criminal intent convert to such person's use or to the use of another, any money, securities, or property having a value in excess of $100, which was received by such person or any employee or agent thereof to margin, guarantee, or secure the trades or contracts of any customer or accruing to such customer as a result of such trades or contracts or which otherwise was received from any customer, client, or pool participant in connection with the business of such person. The word "value" as used in this paragraph means face, par, or market value, or cost price, either wholesale or retail, whichever is greater.

(2) Any person to manipulate or attempt to manipulate the price of any commodity in interstate commerce, or for future delivery on or subject to the rules of any registered entity, or of any swap, or to corner or attempt to corner any such commodity or knowingly to deliver or cause to be delivered for transmission through the mails or interstate commerce by telegraph, telephone, wireless, or other means of communication false or misleading or knowingly inaccurate reports concerning crop or market information or conditions that affect or tend to affect the price of any commodity in interstate commerce, or knowingly to violate the provisions of section 6, section 6b, subsections (a) through (e) of subsection 6c, section 6h, section 6o(1), or section 23 of this title.

(3) Any person knowingly to make, or cause to be made, any statement in any application, report, or document required to be filed under this chapter or any rule or regulation thereunder or any undertaking contained in a registration statement required under this chapter, or by any registered entity or registered futures association in connection with an application for membership or participation therein or to become associated with a member thereof, which statement was false or misleading with respect to any material fact, or knowingly to omit any material fact required to be stated therein or necessary to make the statements therein not misleading.

(4) Any person willfully to falsify, conceal, or cover up by any trick, scheme, or artifice a material fact, make any false, fictitious, or fraudulent statements or representations, or make or use any false writing or document knowing the same to contain any false, fictitious, or fraudulent statement or entry to a registered entity, board of trade, swap data repository, or futures association designated or registered under this chapter acting in furtherance of its official duties under this chapter.

(5) Any person willfully to violate any other provision of this chapter, or any rule or regulation thereunder, the violation of which is made unlawful or the observance of which is required under the terms of this chapter, but no person shall be subject to imprisonment under this paragraph for the violation of any rule or regulation if such person proves that he had no knowledge of such rule or regulation.

(6) Any person to abuse the end user clearing exemption under section 2(h)(4) of this title, as determined by the Commission.

APPENDIX 2

17 CFR Part 180 - PROHIBITION AGAINST MANIPULATION

Authority: 7 U.S. Code 6c(a), 9, 12(a)(5) and 15, as amended by Title VII of the Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. 111-203, 124 Stat. 1376 (2010); 5 U.S. Code 552 and 552(b), unless otherwise noted.

§ 180.1 Prohibition on the employment, or attempted employment, of manipulative and deceptive devices.

(a) It shall be unlawful for any person, directly or indirectly, in connection with any swap, or contract of sale of any commodity in interstate commerce, or contract for future delivery on or subject to the rules of any registered entity, to intentionally or recklessly:

(1) Use or employ, or attempt to use or employ, any manipulative device, scheme, or artifice to defraud;

(2) Make, or attempt to make, any untrue or misleading statement of a material fact or to omit to state a material fact necessary in order to make the statements made not untrue or misleading;

(3) Engage, or attempt to engage, in any act, practice, or course of business, which operates or would operate as a fraud or deceit upon any person; or,

(4) Deliver or cause to be delivered, or attempt to deliver or cause to be delivered, for transmission through the mails or interstate commerce, by any means of communication whatsoever, a false or misleading or inaccurate report concerning crop or market information or conditions that affect or tend to affect the price of any commodity in interstate commerce, knowing, or acting in reckless disregard of the fact that such report is false, misleading or inaccurate. Notwithstanding the foregoing, no violation of this subsection shall exist where the person mistakenly transmits, in good faith, false or misleading or inaccurate information to a price reporting service.

(b) Nothing in this section shall be construed to require any person to disclose to another person nonpublic information that may be material to the market price, rate, or level of the commodity transaction, except as necessary to make any statement made to the other person in or in connection with the transaction not misleading in any material respect.

(c) Nothing in this section shall affect, or be construed to affect, the applicability of Commodity Exchange Act section 9(a)(2).

§ 180.2 Prohibition on price manipulation.

It shall be unlawful for any person, directly or indirectly, to manipulate or attempt to manipulate the price of any swap, or of any commodity in interstate commerce, or for future delivery on or subject to the rules of any registered entity.

Projections Of The Imagination: When is a Token Actually Delivered?

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New Products / FinTech Panel
Derivatives and Futures Law Meeting
ABA Business Law Section
Naples, FL.
January 19, 2018

INTRODUCTION

Among the many regulatory issues raised by the explosion of interest in cryptocurrency/blockchain /distributed ledger technology is one that has bedeviled the Commodity Futures Trading Commission ("CFTC" or "Commission") – the meaning of the statute's use of the term "actual delivery." The issue became important to the CFTC originally as part of the solution to its decades-long, frustrating jurisdictional parrying with foreign currency fraudsters. Its importance grew with the extension of the model used to address that issue to reach other forms of retail commodity transactions. The critical importance of the issue to resolving jurisdiction over transactions in tokens in general and virtual currencies like Bitcoin in particular has pushed the CFTC to address some of the ambiguities that have been left unresolved. The Commission has begun that process with the recent issuance of a Request for Comment on a Proposed Interpretation to address the meaning of "actual delivery" of virtual currency.[1]

THE STATUTORY PROVISIONS

Two statutory provisions provide the context for the CFTC's consideration of the meaning of "actual delivery."

Foreign Exchange Transactions. The first is Section 2(c)(2)(C)(i)(II)(bb)(AA).[2] This clause is part of the provision added to the Commodity Exchange Act ("CEA") to close the hole through which the CFTC felt fraudsters in foreign exchange had been slipping with the Commission's jurisdiction limited to futures contracts.[3] Section 2(c)(2)(C)(i) granted the CFTC jurisdiction to enforce the CEA's fraud prohibitions and other provisions against certain entities that transacted in foreign exchange with non-Eligible Contract Participants ("ECPs")[4] if the transaction was "offered, or entered into, on a leveraged or margined basis, or financed by the offeror, the counterparty, or a person acting in concert with the offeror or counterparty on a similar basis."[5] However, such a transaction is excluded from CFTC jurisdiction if the transaction "results in actual delivery within 2 days."[6]

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[1] *Retail Commodity Transactions Involving Virtual Currency*, 83 Fed. Reg. 60335 (Dec. 20, 2017).
[2] I hope the absurdity of this citation is not lost on anyone.
[3] *See CFTC v. Zelener*, 373 F.3d 861 (7th Cir. 2004); *CFTC v. Erskine*, 512 F.3d 309 (6th Cir. 2008).
[4] *See* 7 U.S.C. §1a(18)(definition of "eligible contract participant").
[5] 7 U.S.C. §2(c)(2)(C)(i)(I)(bb).
[6] 7 U.S.C. §2(c)(2)(C)(i)(II)(bb)(AA).

Retail Commodity Transactions. The second provision is found in the provisions added by the Dodd-Frank Act[7] that expanded the concept embodied in Section 2(c)(2)(C)(i) and granted the CFTC broad jurisdiction over leveraged retail commodity transactions. Section 2(c)(2)(D) grants the CFTC jurisdiction to enforce the CEA as if the transaction was a futures contract when a transaction in any commodity is entered into or just offered to "a person that is not an [ECP] or eligible commercial entity,"[8] and is entered into or offered "on a leveraged or margined basis, or financed by the offeror, the counterparty, or a person acting in concert with the offeror or counterparty on a similar basis."[9] Again, an exception to this jurisdiction is created for a transaction that "results in actual delivery within 28 days or such other longer period as the Commission may determine by rule or regulation based upon the typical commercial practice in cash or spot markets for the commodity involved."[10]

INTERPRETATION AND APPLICATION BY THE CFTC

There has been essentially no effort or opportunity to define "actual delivery" in the context of foreign currency transactions under Section 2(c)(2)(C)(i). The provision was designed to exclude true "spot" transactions from CFTC jurisdiction. Indeed, the Commission has stated, "The CEA generally does not confer regulatory jurisdiction on the CFTC with respect to spot transactions. In the context of foreign currency, spot transactions typically settle within two business days after the trade date ('T+2'')."[11] In turn, the National Futures Association, in the context of discussing forex trading, has defined "settlement" as the "actual delivery of currencies made on the maturity date of a trade." Settlement, of course, means the movement of the two currencies being exchanged from each of the parties to the other. In the modern world, this does not mean that hard currency is physically transferred, but that an account owned and controlled by each party is debited and credited accordingly.[12]

The Commission has grappled more expressly with the question of "actual delivery" in the context of Section 2(c)(2)(D). It published an interpretation in August 2013, intended to provide guidance on how the Commission will interpret "actual delivery" as used in Section 2(c)(2)(D)(ii)(III)(aa).[13] The Release stated expressly that it is not intended to address the meaning and scope of "contracts of sale of a commodity for future delivery", or the forward contract exclusion from

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[7] The Dodd–Frank Wall Street Reform and Consumer Protection Act, Pub.L. 111–203 (2010).
[8] *See* 7 U.S.C. §1a(17)(definition of "eligible commercial entity).
[9] 2 U.S.C. §2(c)(2)(D)(i).
[10] 2 U.S.C. §2(c)(2)(D)(ii)(III)(aa).
[11] *Further Definition of "Swap," "Security-Based Swap," and "Security-Based Swap Agreement"; Mixed Swaps; Security-Based Swap Agreement Recordkeeping*, 77 FR 48,207, 48,256-57 (Aug. 13, 2012). *See also Dunn* v. *CFTC*, 519 U.S. 465, 472 (1997) (defining spot transactions in foreign currency as "agreements for purchase or sale of commodities that anticipate near-term delivery.")
[12] "In terms of the sheer number of transactions the vast majority of payments in the United States today are made in cash or by check, however, in terms of value, the greatest amount of money is paid by electronic funds transfer. For this reason the electronic funds transfer system is a key component of the Unites States payment and settlement system . . .." D. Sanders, ***Payment and Settlement Systems in the Forex Market***, found at http://www.streetdirectory.com/travel_guide/185617/foreign_exchange/payment_and_settlement_systems_in_the_forex_market.html.
[13] *Retail Commodity Transactions under Commodity Exchange Act*, 78 Fed. Reg. 52426 (Aug. 23, 2013).

the terms "future delivery" and "swap," or alter any prior Commission policy pronouncements relating to the foreign contract exclusion, although, interestingly, it was silent on the impact of this interpretation on Section 2(c)(2)(C)(i).[14] In any event, the Commission stated that it "would employ a functional approach "to determining whether actual delivery has occurred," not relying "solely" on the language of the agreement or contract, but looking to "how the agreement, contract, or transaction is marketed, managed, and performed."[15] The particular factors it said it would look to are "[o]wnership, possession, title, and physical location of the commodity purchased or sold, both before and after execution of the agreement, contract, or transaction, including all related documentation; the nature of the relationship between the buyer, seller, and possessor of the commodity purchase or sold; and the manner in which the purchase or sale is recorded and completed."[16]

The Commission did not go any further in elaborating on these factors; it did, however, offer two examples of circumstances under which it would find "actual delivery" and four in which it would find that "actual delivery" did not occur. First, the Commission agreed that "actual delivery" would have occurred if the seller has delivered "the entirely quantity of the commodity purchased by the buyer," including the leveraged or margined portion, and that title of the entire quantity has been transferred.[17] The Commission also said that "actual delivery" would occur if the seller has "physically delivered the entire quantity of the commodity purchase by the buyer," including any portion bought on a leveraged basis or on margin, "whether in specially segregated or fungible bulk form," to certain types of depository institutions "other than the seller and its parent company, partners, agents, and other affiliates."[18]

The examples offered where the Commission will not find that "actual delivery" has occurred included:

(1) Where there has been a book entry showing delivery or a subsequent purchase by the seller to cover the obligation, but no delivery of the type set forth in the first two examples occurred, even if the buyer has a contractual right to require delivery at any time by the seller or its affiliate;

(2) Where the seller has purported to have transferred title and to complete delivery to a depository institution as described in the second example, but the title document does not (a) identify the specific depository institution, (b) the quality specification of the commodity, (c) the party transferring title, or "the segregation or allocation status of the commodity;"[19] and

[14] 78 Fed. Reg. at 52428.
[15] *Id.*
[16] *Id.*
[17] *Id.*
[18] *Id.*
[19] *Id.*at 52428-9.

(3) Where the purchase or sale has been "rolled, offset or otherwise netted with another transaction or settled in cash" and the seller has not made delivery in one of the ways described in two examples provided of "actual delivery."[20]

Less than one year later, the Commission found vindication for at least part of its position with regard to "actual delivery" in the Eleventh Circuit Court of Appeal's decision in *CFTC v. Hunter Wise Commodities, LLC.*[21] The Commission had brought a case against a firm that bought and sold precious metals, but that did not actually store or transfer actual metal, but rather managed its risk exposure from customers' trading positions by trading derivatives with other precious metals trading companies.[22] The court recognized that the statute fails to define "actual delivery," so it turned to "the ordinary meaning of the term to interpret the statute."[23] Turning to *Black's Law Dictionary*, the court said delivery involves "'the formal act of transferring something'; it denotes a transfer of possession and control."[24] Also relying on *Black's*, the court said that "actual delivery" requires "'[t]he act of giving real and immediate possession to the buyer or the buyer's agent,'" and in particular, that possession must "'exist in fact' and is 'real," rather than constructive."[25]

In the case before it, the court found the analysis rather easy. The provision of "Transfer of Commodity Notices" provided to customers which purported to transfer metal in and out of the customers account "did not give the customers any right to possess or control actual metals"[26] and thus at best constituted constructive delivery, not actual delivery, and probably not even that.[27] The court did not "turn to" the Commission's interpretative notice, it did say that the notion "complements our conclusion." It noted that the Commission interpretation rejected mere book entries as sufficient to constitute "actual delivery," and concluded, "The district court's sound factual findings indicate that 'delivery' as it occurred [here] was akin to such book entries and unlike the situations the Commission said [in its interpretation] would satisfy the exception's requirements."[28]

A couple of other developments in the Commission's consideration of "actual delivery" in the physical world are relevant to the assessment of the Commission's effort to tackle the issue in the virtual world. In *CFTC* v. *Worth Group, Inc.*,[29] it appeared that the CFTC was initially taking the position that as long as a precious metals dealer transferred actual physical metal held in a depository and allocated that metal into an account in the customer's name, actual delivery would be completed.[30] However, in the wake of the Eleventh Circuit's decision in *Hunter Wise*, the Commission took the position that actual delivery had not occurred, because the depository remained an agent of the seller, would act only at the

[20] *Id.*at 52429.
[21] 749 F.3d 967 (11th Cir. 2014).
[22] 749 F.3d at 971.
[23] *Id.* at 978.
[24] *Id.*(internal citation omitted).
[25] *Id.*(internal citation omitted).
[26] *Id.* at 972.
[27] *See id. at* 979 ("The district court found Hunter Wise had nothing to deliver, constructive or otherwise.")
[28] *Id.* at 980.
[29] *CFTC v. Worth Group. Inc.,* No. 13-cv-80796 (S.D. Fla. filed Aug. 13, 2013).
[30] *See* CFTC Opp. To Defs.' Mot. To Dismiss at 16, *CFTC v. Worth Group, Inc., supra* (filed Dec. 16, 2013).

direction of the seller to move metal in or out of the client's account, and thus the purported buyer had "no power" over the gold that it owned.[31] It appears that the CFTC's position was based on the fact that the seller continued to exert control over the metal to protect its security interest in that metal in support of its financing of the purchase. In any event, the CFTC eventually agreed to a final Consent Order that seemed to permit Worth to continue its previous practice in this regard.[32] However, in at least two other cases filed recently, a settlement and a litigated proceeding, the Commission appears to be taking the position that, even with the delivery of metal into an account held for the customer in an independent depository and a transfer title, restrictions on the customer's ability to freely transfer the metal without the consent of the seller, presumably designed to protect the seller's security interest in the metals, means that "actual delivery" has not occurred.[33]

ACTUAL DELIVERY AND VIRTUAL CURRENCIES

Thus we come to virtual currencies. The first step in the progression was the CFTC's pronouncement, via an enforcement action – *In re Coinflip, Inc.*[34] -- that virtual currency, in particular Bitcoin, is a "commodity." Thus, the Commission would not treat Bitcoin as a currency, which the CFTC distinguished as "the coin and paper money of the United States or another country that are designated as legal tender, circulate, and are customarily used and accepted as a medium of exchange in the country of issuance."[35] The CFTC also made it clear that this view would apply to all virtual currencies, which it defined as "a digital representation of value that functions as a medium of exchange, a unit of account, or a store of value, but does not have legal tender status in any jurisdiction."[36]

The *Coinflip* case and a subsequent Bitcoin-related matter, *In re TeraExchange LLC*,[37] involved swaps and options. In June 2016, however, the CFTC brought a case against Bitfinex, a Hong Kong-based company operating an online company offering virtual currencies, but only spot transactions.[38] Bitfinex allowed trading on a 30% margin, and thus potentially fell under the retail commodity transaction provisions of the CEA. As the settlement order described it, "Traders may close out positions at any time without penalty for closing it. This will reimburse the Margin Funding Provider, and the position will be settled at a profit or loss. Financing Recipients can also 'claim' their positions, by paying off the

[31] *See* CFTC Mot. For Leave to Amend the Complaint and Memo. In Support, *CFTC v. Worth Group, Inc., supra* (filed Aug. 8, 2014).
[32] *See* Consent Order of Permanent Inj., *CFTC v. Worth Group, Inc., supra* (filed Feb. 1, 2016).
[33] *See* Consent Order of Permanent Inj., Civ. Monetary Penalty, and other Equitable Relief Against Mintco LLC, *CFTC v. Mintco LLC et al,* 15-cv-61960-BB (S.D. Fla., filed Dec. 19, 2017); Complaint for Inj. And Equitable Relief and Penalties under the Comm. Exch. Act, *CFTC v. Monex Deposit Co.,* 17-cv-06416 (N.D. Ill, filed Sept. 6, 2017) (subsequently transferred to S.D. Cal.) (paras. 41, 42: "Monex can close out the customer's long position at any time in its sole discretion and at a price of Monex's choosing. There is also no requirement that Monex provide notice to a customer before liquidating a customer's position. . . . In the context of a short position, [a]s with a long position, the purported transfer of metals is in reality a book-entry in Monex's records that Monex can close out at any time in its sole discretion and at a price of Monex's choosing.")
[34] CFTC Dkt. No. 15-29 (Sept. 17, 2015)
[35] *Id.* at *n.2.
[36] *Id.*
[37] CFTC Dkt. No. 15-33 (Sept. 24, 2015).
[38] *In the Matter of BFXNA INC. d/b/q Bitfinex*, CFTC Dkt. No. 16-19 (Jun. 2, 2016).

outstanding loan, or they can trade out of positions. If a Financing Recipient's equity in a position falls below 15%, the position is forcibly liquidated in order to ensure repayment of the loan."[39]

The CFTC concluded that there was not actual delivery. While the precise manner in which Bitfinex handled customer-purchased coins over the period at issue changed, the one common element that the CFTC noted was that "Bitfinex retained control over the private keys" to the wallets in which the customers' coins were held."[40] The CFTC summarized and, in effect, said it was applying the test set out by the court in *Hunter Wise* and by the Commission in its interpretation. It then reasoned as follows:

> Bitfinex did not transfer possession and control of any bitcoin to the Financing Recipients, unless and until all liens on the bitcoin were satisfied. Prior to satisfaction of the liens, the Financing Recipients' bitcoins were held in an omnibus settlement wallet owned and controlled by Bitfinex, and to which Bitfinex held the private keys needed to access the wallet. Bitfinex' s accounting for individual customer interests in the bitcoin held in the omnibus settlement wallet in its own database was insufficient to constitute "actual delivery." See Retail Commodity Transactions Under Commodity Exchange Act, 78 Fed. Reg. 52,426, 52,428 (Aug. 23, 2013) ("book entry" purporting to show delivery insufficient). Similarly, when Bitfinex changed its model in August 2015 and January 2016, it retained control over the private keys to those wallets, and the Financing Recipients had no contractual relationship with the third party firm that established the wallets. See id.[41]

In the wake of this settlement order, there was consternation expressed about the workability of the test for actual delivery of virtual currency that the CFTC seemed to be embracing, which turned on the question of control over the private keys. The law firm Steptoe & Johnson petitioned the CFTC for a rulemaking on "the requirements for effectuating a transfer of an ownership interest in a commodity under the [CEA] in the context of cryptocurrency markets utilizing blockchain for executing transactions."[42] Specifically addressing the *Bitfinex* order, the letter asserted that it had "generated legal uncertainty within the cryptocurrency market as to the elements of 'actual delivery' and raised broader questions regarding the transfer of ownership of a commodity in the blockchain context."[43] With particular regard to the focus on private keys, the letter asserted,

> making control of private keys a prerequisite to having ownership and control of a cryptocurrency would be artificial and harmful to these markets because private keys have no innate legal significance with regard to the transfer,

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[39] *Id.* at *3.
[40] *Id.* As the CFTC put it, "In the context of cryptocurrencies, a 'private key' is a secret number (usually a 256-bit number) associated with a deposit wallet that allows bitcoins in that wallet to be spent." *Id*. at *3n.4
[41] *Id.* at *6.
[42] https://poloniex.com/press-releases/2016.10.18-Our-request-for-no-action-relief/Steptoe-Petition-for-CFTC-Rulemaking-(07-01-2016).pdf
[43] *Id.*

> control, and possession of cryptocurrency on the blockchain. There is no attribute of the blockchain itself that defines how a private key may be used in order to authorize and effectuate a transaction. Rather, private keys are a modality to effectuate the parties' contractual agreements when they choose to transfer property via the blockchain, and the significance or lack of significance of private keys and personal addresses is determined entirely by the transacting parties. . . . In brief, because private keys have no independent bearing on ownership, there is no legal foundation for making private keys a condition of actual delivery.44

THE CFTC'S PROPOSED INTERPRETATION

Prior to the CFTC's recent Request for Comment, indications were that the CFTC was taking the concerns of those trading virtual currency to heart. For instance, in his keynote remarks to the Symphony Innovate 2017 conference on October 4, 2017, Commissioner Brian Quintenz, who chairs the CFTC's Technology Advisory Committee ("TAC"), commented with regard to this issue, "[I]f a platform offers a transaction in Bitcoins which is margined, leveraged, or financed, it needs to Quote Unquote 'deliver' that Bitcoin to the buyer within 28 days or it must register as an FCM. Obviously, "actual delivery" in this context becomes an enormously important term. Would someone here like to tell me how to define the 'actual delivery' of a virtual commodity? The CFTC is working very hard to provide a suitable response to that question. "[45] Now, the CFTC has come forth with a proposal to elaborate on its earlier interpretation of "actual delivery" to apply to virtual currencies.

The CFTC's proposed interpretation first notes that retail commodity transactions are transactions in which an entity or platform offers margin trading or facilitates use of margin, leverage or financing for retail customers and typically enable these retail customers "to speculate or capitalize on price movements of the commodity – two hallmarks of a regulated futures marketplace."[46]

In the proposed interpretation, the CFTC indicates that in interpreting the term "actual delivery" the CFTC will continue to follow the 2013 interpretative guidance and repeats the discussion of "functional approach" and the "Relevant factors" noted in that earlier release. Here, more specifically, the CFTC proposes to require that (1) the customer should have the ability to take possession and control of the entire quantity of the commodity, the ability to use it freely in commerce, both within and away from any particular platform, and, importantly, (2) the offeror and counterparty seller, including any of their respective affiliates or others acting in concert with them on a similar basis, does not retain any interest in or control over any of the commodity purchased on margin, leverage or financing at the expiration of 28 days from the date of the transaction. As the Commission put it, "actual delivery of

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[44] *Id.*

[45] http://www.cftc.gov/PressRoom/SpeechesTestimony/opaquintenz1

[46] *Retail Commodity Transactions Involving Virtual Currency*, *supra* n.1, 83 Fed. Reg. at 60338.

virtual currency connotes the ability of a purchaser to utilize the virtual currency purchased 'on the spot' to immediately purchase goods or services with the currency elsewhere."[47]

Thus, the CFTC appears to have gone even further down the road suggested by the early metals cases and is prepared to assert explicitly that, at least as to virtual currency, and, presumably, other tokens created using similar technology, no security interest or lien will be allowed to remain on the commodity itself that has been sold on a leveraged, margined or similarly financed basis once delivery has occurred. Unlike with an automobile or a house, where the financing of the sale can be secured by the commodity itself, the purchaser of virtual currency presumably will be required to provide a security interest in some other assets that will satisfy the seller of the virtual currency.

The legal basis for requiring such a prerequisite to actual delivery is far from clear. After all, even if a car owner with a lien on the car or a homeowner with a mortgage can "actually possess" the car or the house, he/she cannot transfer ownership of that car or house without satisfying the lien or paying off the mortgage. Similarly, it is not apparent why mechanisms that prevent an owner of virtual currency from transferring the ownership of that currency in order to protect a security interest held by the seller should, in and of itself, preclude the conclusion that there has been "actual delivery" of the virtual currency. The inability to retain a security interest certainly would be both highly unusual in the commercial marketplace and will likely make it extremely difficult to use margin, leverage or similar financing in the virtual currency markets.

Moreover, there are implications that will flow from the CFTC's interpretation beyond virtual currency, most notably, with regard to transactions involving other inchoate assets, whether they be carbon emission credits or even fiat currency. In that regard, the CFTC offered what it asserted was a contrast between fiat and virtual currency in the recent release, stating that "[t]he distinction between physical settlement and cash settlement in this context [*i.e.*, settlement of virtual currency] is akin to settlement of a spot foreign currency transaction at a commercial bank or hotel in a foreign nation – the customer receives physical foreign currency, not U.S. dollars."[48] Of course, this distinction ignores the fact that, in this day and age, many, if not most, fiat currency transactions do not involve the receipt or the payment of physical currency; that is certainly the case with regard to trading of forex through bank and other financial accounts. Most fiat currency transactions will involve currency assets being credited or debited from accounts that remain under the control of the provider of the account, which is also often the counterparty to the transaction. While the account holder "owns" the currency, she/he still must instruct the institution to transmit the currency out of the account to be used in whatever manner the owner intends. Given the similarity to virtual currency, as an inchoate asset in which "possession" is simply represented by a balance in an account, the question arises whether, if the CFTC ultimately adopts this interpretation, the CFTC will next say that fiat forex assets bought on a margined, leveraged or similarly financed manner similarly will need to be free of any claim by the seller by two days after the transaction, when "actual delivery" needs to be made under CEA Section 2(c)(2)(C)(i)(II)(bb)(AA)..[49]

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[47] *Id.* at 60339.
[48] *Id.*
[49] 7 U.S.C. §2(c)(2)(C)(i)(II)(bb)(AA).

If it is impractical to require such transactions to be backed up by other assets, would such an interpretation effectively eliminate such transactions, even though CEA Section 2(c)(2)(C)(i) clearly envisions that there can be transactions "offered, or entered into, on a leveraged or margined basis, or financed by the offeror, the counterparty, or a person acting in concert" with them?[50] If the CFTC is going to distinguish fiat currency transactions from virtual currency transactions in a manner to gives more leeway to fiat currency transactions with regard to what constitutes "actual delivery," will that distinction that can hold up to judicial scrutiny?

CONCLUSION

The regulated community and the CFTC will need to grapple with these questions as the consideration of the current proposed interpretation moves forward. Commissioner Quintenz, in that same keynote address, stated that, "Once a proposal [regarding "actual delivery of virtual currency] comes forward, I expect to request the TAC's input and feedback as we work to provide regulatory consistency with other commodities….as well as regulatory certainty within which a more constructive trading environment may develop."[51] The challenge for the CFTC will be to navigate these waters in a manner that can provide "consistency with other commodities" and "a more constructive trading environment" within the confines of the law and without generating unintended consequences across other commodities, particularly other "virtual" commodities, with either unpredictable or negative consequences.

[50] 7 U.S.C. §2(c)(2)(C)(i).

[51] http://www.cftc.gov/PressRoom/SpeechesTestimony/opaquintenz1