

P.R.I.M.E. Finance

Panel of Recognized International Market Experts in Finance

Developments in Cryptoassets



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Gary DeWaal

Katten Muchin Rosenman LLP

P: 212-940-6588 E: gary.dewaal@kattenlaw.com

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Types of Cryptoassets

- There are three principal types of cryptoassets; they each serve different functions. Although all are termed cryptoassets, they all are solely entries on a decentralized distributed ledger.
 - Some serve principally as a medium of exchange and store of value, like Bitcoin; they operate as a virtual currency.
 - Some reflect an interest in an enterprise and are likely securities, like DAO and REcoin. They might be initially issued as part of initial coin offerings (ICOs); they may be associated with pre-sales (SAFTs). They are often referred to as digital tokens.
 - Others are structured as utility tokens, giving preferential rights to use the output of a new project. These also may be deemed securities.
- Cryptoassets may morph from one function to another during their lives, like security futures (e.g., similar to how a broad-based stock index futures contract may become a narrow-based stock index futures contract). They may have multiple purposes throughout.



How are Security Tokens Regulated in the US?

- In the United States, security tokens are subject to federal and state securities regulation:
 - A new security must either be registered with the SEC (and potentially states) or meet an exemption.
- Offers and exchanges:
 - Exchanges for digital tokens that are securities must be registered as a national securities exchange or be exempt from such registration requirement (e.g., broker-dealers operating alternative trading systems).
 - Under SEC and state law, participants should be aware of potential broker-dealer registration requirements.
- Advice:
 - Participants in the business of giving advice about securities to clients are investment advisers and may be required to register with the SEC.
 - An investment company is a vehicle that issues securities and is predominantly involved in the business of investing in securities. Under the Investment Company Act, investment companies must register with the SEC or qualify for an exemption from registration.



ICOs

- The DAO (2016)
 - The first token crowdsale in mid-2016. Raised \$152m in a matter of weeks. Tokens included voting rights to select collective investment projects. Shut down after a hacker/bad actor directed majority of funds to a single project.
- Tezos (2017)
 - Raised approximately \$232m for “self-amending” better blockchain. Founders currently in dispute with the Swiss foundation established to administer ICO proceeds.
- Filecoin (2017)
 - Raised approximately \$250m for a decentralized file storage network.
- Telegram (2018)
 - A messaging service that raised \$1.7 billion in two funding rounds. A Russian court officially banned the messaging app weeks after its presale concluded.
- Dragon (2018)
 - Raised approximately \$320m. DRG tokens are exchanged for DGC (Dragon Global Chips), a cryptocurrency gaming chip at Casinos allowing both players and Casinos to take advantage of the added transparency & security of the Blockchain.



ICOs

- Tokendata, an ICO tracker, lists 902 crowdsales which took place in 2017.
 - Of these, 142 failed at the funding stage and a further 276 have since failed.
 - This means that 46% of last year's ICOs have already failed.
- According to one academic study, there have been over 1,600 known ICOs.



Tokenized Traditional Securities

- In addition to initial coin offerings, there are opportunities for companies to offer digital versions of traditional securities (e.g., tZERO).
- Delaware enacted a law authorizing corporations to maintain certain required records, including stock ledgers, on electronic networks or databases, including distributed electronic networks.
- Arizona became the second state to allow corporations to maintain data on a blockchain.



SEC Regulation

- On July 25, 2017, the SEC Report of Investigation regarding DAO found that digital tokens issued by an entity for the purpose of raising funds for projects may be considered securities under federal law.
- The SEC based its conclusion that DAO tokens were securities on the four-part test articulated in SEC v. W.J. Howey.
 - The elements of an investment contract are an (1) investment of money (2) in a common enterprise (3) with a reasonable expectation of profits (4) to be derived solely from the entrepreneurial or managerial efforts of others.
- The SEC additionally raised the possibility that a virtual organization might be required to register as an investment company and a securities exchange.



Litigation – SEC

- On December 11, 2017, Munchee Inc., a company offering digital tokens to raise capital for its blockchain-based food review service halted its ICO after the SEC found that Munchee’s conduct constituted unregistered securities offers and sales. The Munchee order made it clear that a cryptocurrency will be deemed a security if its holders purchase the token with the expectation that it will rise in value principally based on the managerial efforts of others.
- SEC Chairman Jay Clayton on the same day issued a statement expressing his skepticism regarding the possibility that self-labeled “utility tokens” were not securities.



Litigation – SEC

- In summer 2018, a federal court, in Brooklyn, NY, denied a motion to dismiss a criminal indictment against Maksim Zaslavskiy, for an alleged ICO fraud, validating the SEC’s view that such digital assets may be investment contracts, and thus securities. Mr. Zaslavskiy, allegedly sold ICO tokens that were not developed, delivered, or backed by any type of assets, as promised. The court denied the motion, ruling that the government, at least for the basis of Zaslavskiy’s motion to dismiss, alleged sufficient facts for a fact finder to determine whether the tokens met the *Howey Test*’s definition of an investment contract.
- However, in fall 2018 a California federal court rejected the SEC’s view – at least at an early state in an enforcement proceeding, that an offering of cryptoassets by Blockvest LLC and its chairman and founder, Reginald Ringgold III, constituted a security offering in considering whether to grant the SEC’s request for a preliminary injunction; the SEC’s request was denied. The Court said the SEC at this state did not show that investors expected profits through “the development of [their] initial investment” or a sharing of earnings generated from the use of their invested funds.



Enforcement – SEC

- Although the SEC has declined to comment, there have been reports of a large number of subpoenas and information requests sent regarding the structure of pre- sales and sales of ICOs.
- There have been reports that the SEC is preparing to examine as many as 100 hedge funds focused on cryptoassets starting in the next few months.



Enforcement – SEC

- In 2018, for the first time, the SEC charged a respondent for failing to register as a broker-dealer for selling ICO-issued digital assets that it considered securities. Lenny Kugel and Eli Lewitt, allegedly operated as unregistered broker-dealers when they promoted “ICO Superstore” to sell ICO-issued security tokens and trade security tokens in the secondary market. The respondents resolved this action by disgorging US \$479,999 including interest, and Mr. Kugel and Mr. Lewitt agreed to each pay fines of US \$45,000, among other sanctions.
- Also for the first time last year, the SEC charged respondents for failing to register as an investment company for creating a hedge fund based on investments in digital assets. Crypto Asset Fund, LLC, an unregistered entity, allegedly invested more than 40 percent of its value in digital asset securities without complying with applicable law. The respondents were also charged with making false or misleading statements to investors. The respondents resolved this action by agreeing to pay a fine of US \$200,000, among other sanctions.
 - In footnote 1 of the SEC Report of Investigation regarding DAO, the SEC did not analyze whether The DAO was an investment company. It now appears that potential investment companies investing in digital assets are on the SEC’s radar.



FINRA Regulation

- In 2018, the Financial Industry Regulatory Authority (FINRA) also commenced a disciplinary proceeding for violation of laws in connection with the offer and sale of digital cryptoassets. This was FINRA's first foray into this space.
- FINRA alleged that Timothy Ayre made material misstatements in public filings, and unlawfully offered to the public HempCoin, tokens that he claimed were backed by marketable-securities of a company for which he was a principal owner.
- FINRA also charged Mr. Ayre with engaging in private securities transactions without notifying the broker-dealer he worked for at the time.
 - This is the second time FINRA has charged an entity for violating this rule. Earlier this year, Arthur Meunier a/k/a Arthur Breitman agreed to be suspended for two years from association with any FINRA-regulated broker-dealer to settle FINRA charges that, from February 2014 to April 2016, he participated in the development of Tezos, a blockchain technology project, without notifying the broker-dealer he was then employed by of such activity, as required by FINRA rules.



CFTC Regulation

- Virtual currencies are a commodity.
 - Commodities are generally defined as any goods, articles, services, rights and interests “in which contracts for future delivery are presently or in the future dealt in.”
 - The CFTC first found that Bitcoin and other virtual currencies were properly defined as commodities in 2015, when it filed and settled charges against Coinflip, Inc. and Francisco Riordan for operating a trading facility for Bitcoin options without it being registered as a SEF or a DCM.
- Sale to retail clients:
 - If financing is involved, actual delivery must be within 28 days, or must be registered as an FCM. Futures transactions must be executed on or subject to the rules of a DCM.
- Sale of options on virtual currencies:
 - Defined as swaps.
 - All trading facilities for commodity options on cryptocurrencies must be registered with the CFTC as an SEF or a DCM.



CFTC Regulation

- Additionally, new anti-manipulation authority of the CFTC adopted as part of Dodd-Frank prohibits the use of any manipulative device or contrivance in connection with transactions involving commodities in interstate commerce.
 - The ancillary CFTC rule adopted under Dodd-Frank prohibits the intentional or reckless employment or attempt to employ any manipulative device, scheme or artifice to defraud, to make any untrue or misleading statement of a material fact or to omit a material fact.
 - Traditional CFTC anti-manipulation authority is also relevant.



Litigation – CFTC

- In June 2016, BFXNA Inc., doing business as Bitfinex, which operated an online platform for trading cryptocurrencies, agreed to settle charges brought by the CFTC that it allegedly engaged in prohibited, off-exchange commodity transactions with retail clients and failed to register as an FCM, as required.
- On August 23, 2018, a federal court in New York confirmed that virtual currencies are commodities and that the CFTC had jurisdiction to bring its enforcement action relying on the fraud-based manipulation prohibition in the Dodd-Frank Wall Street Reform and Consumer Protection Act and a parallel CFTC rule. The decision was against CabbageTech, Corp. and Patrick McDonnell, its owner and controller, for unlawfully soliciting customers to send money and virtual currencies for virtual currency trading advice and for the discretionary trading of virtual currencies by Mr. McDonnell.
- A similar determination was made a month later in connection with a motion to dismiss lost by defendants in a CFTC enforcement action in a federal court in Massachusetts against My Big Coin Pay, Inc., Randall Crater and certain relief defendants.



FinCEN Regulation

- FinCEN oversees the application of the Bank Secrecy Act and USA PATRIOT Act to companies.
- A person who provides money transmission services or any other person engaged in the transfer of funds must be registered as a money services business.
- FinCEN has issued rulings suggesting that virtual currency payment systems and virtual currency exchange platforms are money transmitters.
- However, “users” (people who obtain virtual currency to purchase goods or services, including miners) and bona fide investment companies engaged in investing in virtual currencies for their own accounts are not money transmitters.
- On March 6, 2018, the US Treasury Department publicly released a letter stating that developers or exchanges that exchange ICO issued coins or tokens for fiat or virtual currency would typically be required to be licensed as money service business by FinCEN unless otherwise registered with the SEC or CFTC.



OFAC

- OFAC updated its FAQs to include that persons subject to its jurisdiction are prohibited from doing business with persons named on the Specially Designated Nationals (SDN) and Blocked Persons list, whether utilizing fiat or virtual currency.
- OFAC indicated that it may add digital currency addresses to its SDN list to alert the public of specific digital currency identifiers associated with blocked persons.
- Persons that identify digital currency identifiers or addresses associated with prohibited persons should take the steps to block the relevant digital currency and file a report with OFAC.
- On May 3, 2018, NFA issued a notice reminding FCMs and introducing brokers to comply with the recent OFAC guidance for virtual currency transactions.



State Regulation

- Most states regard transactions in virtual currencies as part of a business as being subject to money transmitter requirements.
- In New York, such transactions are also subject to NY BitLicense requirements, and in other states, possibly soon, requirements under the Uniform Regulation of Virtual Currency Businesses Act as may be adopted.
- In May 2018, the North American Securities Administrators Association (NASAA), comprised of over 40 state and provincial regulators in the US and Canada, announced that its “Operation Cryptosweep”, a coordinated effort to protect Main Street investors from ICO and cryptocurrency-related investment product fraud, resulting in nearly 70 investigations and 35 enforcement actions.



NYDFS Regulation

- NYDFS has implemented BitLicense regulations with respect to
- Bitcoin and other virtual currencies.
- These regulations require the licensing of, and establish minimum standards of conduct for, any person who engages in virtual currency business activity involving New York or a New York resident.
- Virtual currency business activity includes:
 - Receiving virtual currency for transmission or transmitting it.
 - Storing, holding or maintaining control of virtual currency on behalf of others.
 - Buying and selling virtual currency as a customer business.
 - Controlling, administering or issuing a virtual currency.



NYDFS Regulation

- Any person engaged in the business of receiving money for transmission or transmitting the same must be licensed as a money transmitter.
- This likely includes, but is not limited to, e-wallets, exchanges, payment processors, dealers, virtual currency ATMs and administrators.
- On February 7, NYDFS issued guidance reminding virtual currency entities licensed in New York State that they are required to implement policies to detect, prevent, and respond to fraud, attempted fraud, and similar wrongdoing, including market manipulation.



Private Litigation

- Multiple class action litigations have been filed and are in process in connection with ICOs
- These lawsuits generally claim that the defendants committed fraud and offered and sold unregistered securities - the ICO tokens - in direct violation of the Securities Act. Defendants include:
 - Ripple Labs, Inc. facing two cases in federal court and two in state court.
 - Dynamic Ledger Solutions, Inc., whose digital token is known as Tezos, is defending against two cases in state court.
 - Paragon Coin, Inc., a cannabis cryptocurrency, fighting a case in state court.



NY Attorney General

- On September 18, 2018, the New York Attorney General's office announced the results of its Virtual Markets Integrity Report. The report revealed that consumers trading on cryptocurrency platforms should be aware of the following areas of concern: lack of protection from abusive trading practices, pervasive conflicts of interest, and limited protection of customer funds. Additionally, the Attorney General's office referred the Binance, Gate.io and Kraken platforms to the New York State Department of Financial Services for possibly operating unlawfully in the state.



State Enforcement and Litigation

- Many states have brought enforcement actions against persons and firms for the unregistered offer and sale of securities in connection with ICOs.
- In 2018, North Carolina issued a cease and desist order against BitConnect, a UK- based cryptocurrency-issuing company, in connection with various digital currency-related investment programs.
 - The Securities Division of the NC Department of the Secretary of State claimed that BitConnect was selling unregistered securities while not being registered as a dealer or salesman of securities in the state and omitting material facts when offering investments.
- Also in 2018, North Carolina also entered a temporary cease and desist order precluding Power Mining Pool from selling its securities to North Carolina residents. According to the Securities Division, Power Mining Pool claimed to be a mining pool that mined seven cryptocurrencies and automatically switched operations to the most profitable cryptocurrency to transact in at the time.



State Enforcement and Litigation

- The Texas State Securities Board (TSSB) also in 2018 entered a cease and desist order against DavorCoin, a company offering a lending program involving a new cryptocurrency. According to the TSSB, DavorCoin offered persons an opportunity to invest in its lending program and achieve certain minimum guaranteed returns, but did not provide any detail as to how it would generate such profits.
- On April 10, 2018, TSSB issued a report noting widespread fraud in many cryptocurrency offerings aimed at Texas citizens.
- Recently, Massachusetts halted five ICOs, claiming that the companies behind them were selling unregistered securities.
- On April 17, 2018, the New York Attorney General's Office launched an inquiry into 13 virtual currency exchanges as a part of an investor protection initiative, requesting disclosures regarding (1) ownership and control; (2) basic operation and fees; (3) trading policies and procedures; (4) outages and other suspensions of trading; (5) internal controls; and (6) privacy and money laundering.



International Regulation

- Foreign regulators have taken different approaches to the regulation of
- ICOs:
 - In Switzerland, FINMA published a notice that it was investigating a number of ICOs to determine if regulatory provisions have been breached, and noted ICOs may come under existing regulatory legislation.
 - Malta in 2018 adopted three laws to promote digital ledger technology. It formed the new Malta Digital Innovation Authority expressly to support new technology innovation, including DLT. The Virtual Financial Asset Act provides an express framework for ICOs.
 - The government of Gibraltar has enacted specific laws governing digital token sales, secondary digital token market platforms, and investment services relating to non-security and non-virtual currency digital tokens that also expressed a narrow view of what constitutes a security token.
 - Singapore in 2019 warned a proposed issuer of an ICO to cease activities as it was not complying with requirements for private offerings. Allegedly it publicized its offering on LinkedIn.
 - In 2018, the Securities and Futures Commission of Hong Kong issued a notice stating that digital tokens offered or sold as part of ICOs may constitute securities and be subject to HK securities laws.
 - Seven government regulators in China banned the use of initial digital coin offerings as a fundraising device. South Korea has also banned ICOs



International Regulation

- The legal status of cryptoassets varies from country to country and is still changing.
 - Japan granted its first licenses for cryptocurrency exchanges.
 - Binance, a cryptocurrency exchange originally founded in China, was forced to move its offices to Japan after regulatory measures from the Chinese government; however, Japan recently suspended Binance, claiming that it was violating Japanese rules and was not properly registered.
 - A number of national governments are exploring the issuance of cryptocurrency tokens which represent fiat currency (e.g., Singapore, Kazakhstan, China, Russia, Australia, Sweden). Venezuela has already issued the Petro.



FCA Regulation

- Last year, the FCA issued a warning as to ICOs being high-risk and that some may involve regulated activities and regulated financial investments (while not being regulated separately). Whether an ICO falls within the FCA's regulatory boundaries can only be decided on a case by case basis.
- In January, 2019, the FCA issued proposed guidance recognizing three types of digital tokens: payment tokens (e.g., virtual currencies), security tokens and utility tokens. Only security tokens are fully in the FCA's regulatory remit. However:
 - Certain payment tokens pegged to fiat currency (e.g., stablecoins) may be subject to the e-money requirements;
 - Stable coins pegged to fiat currencies or other commodities or assets (e.g., gold) or baskets of cryptassets may be securities if they resemble funds or derivatives; and
 - In 2019, Her Majesty's Treasury is likely to propose expanding the regulatory remit of the FCA to cover other cryptoassets.



Practical Questions to Ask: Is a Digital Token Likely a Cryptocurrency or Security?

- The Canadian Securities Administrators (CSA) recently issued guidance regarding when digital tokens are subject to securities laws.
 - CSA provided 14 fact patterns and provided conclusions as to whether the relevant digital token had characteristics of a security or not.
- FCA also proposed a number of case studies and Q/As to give guidance regarding digital token classification.
- William Hinman, the Director of the Division of Corporate Finance of the SEC, said in a speech during June 2018 that ether is not a security and that certain utility tokens might also not be securities.
- Mr. Hinman set forth 13 considerations in evaluating whether a digital token is likely a security, including:
 - Is there a person or group that has sponsored or promoted the creation and sale of the digital asset, the efforts of whom play a significant role in the development and maintenance of the asset and its potential increase in value?
 - Has this person or group retained a stake or other interest in the digital asset such that it would be motivated to expend efforts to cause an increase in value in the digital asset? Would purchasers reasonably believe such efforts will be undertaken and may result in a return on their investment in the digital asset?
 - Has the promoter raised an amount of funds in excess of what may be needed to establish a functional network, and, if so, has it indicated how those funds may be used to support the value of the tokens or to increase the value of the enterprise? Does the promoter continue to expend funds from proceeds or operations to enhance the functionality and/or value of the system within which the tokens operate?
 - Are purchasers “investing,” that is seeking a return? In that regard, is the instrument marketed and sold to the general public instead of to potential users of the network for a price that reasonably correlates with the market value of the good or service in the network?
 - Does application of the Securities Act protections make sense? Is there a person or entity others are relying on that plays a key role in the profit-making of the enterprise such that disclosure of their activities and plans would be important to investors? Do informational asymmetries exist between the promoters and potential purchasers/investors in the digital asset?
 - Do persons or entities other than the promoter exercise governance rights or meaningful influence?



Practical Questions to Ask: Is a Digital Token Likely a Cryptocurrency or Security?

1. What was the initial stated purpose for the digital token?
2. How is the digital token promoted today?
3. Is the digital token generally regarded as a currency, currency substitute or payment substitute, serving as a medium of exchange, store of value or unit of account?
4. Do merchants or any third parties accept the digital token for payment? If yes, how widespread? Is the digital token used for payment on a blockchain? If yes, how?
5. Was the digital token initially issued as part of an ICO or a type of continuous offering? If not, how are new digital tokens currently issued and what is the percentage of ICO and non-ICO derived digital tokens? Was there a pre-sale associated with the ICO (e.g., SAFT)?
6. What is the governance regarding the blockchain associated with the digital token? Is there a different governance for the token itself? If yes, what is it?
7. Is the blockchain associated with the digital token centralized or decentralized?
8. How are transactions involving the digital token validated and recorded on the associated blockchain?
9. Do holders of digital tokens directly or indirectly have any rights to income? Are there any other rights associated with ownership of the digital token? If yes, what are they?



Bitcoin

- Bitcoin was launched in 2009 and uses a decentralized distributed database or ledger called the blockchain to agree to and record transactions.
- Transaction data is recorded sequentially and grouped into transaction “blocks.”
- The record is known as the “blockchain” and is considered permanent (uneditable/tamper-proof).
- However, it is plausible for the blockchain in the normal course to be superseded or formally amended.



Bitcoin

- The integrity of a decentralized distributed ledger is maintained by miners.
- Bitcoin is created through a process whereby miners solve mathematical formulas as part of a process to confirm and consolidate recent transactions and append them to the prevailing version of the blockchain. For this, they are rewarded with an allocation of Bitcoin (“proof of work”). Other cryptocurrencies have similar or different mechanisms (e.g., fees) to reward persons who maintain the integrity of the cryptocurrency’s infrastructure (e.g., blockchain).
- Prior longest blockchain + collection of unconfirmed transactions + nonce = new blockchain.
- While Bitcoin has the largest user and merchant base, Ethereum is attracting an increasing consumer base.



Ethereum

- Ethereum is a distributed public blockchain network.
- On the Ethereum network, application developers use Ether as a virtual currency to pay for transaction fees and services.
- Ether also is tradeable in the secondary market under the symbol “ETH.”



Ethereum

- In the Ethereum white paper, Ether is described as the “main internal crypto-fuel of Ethereum, and is used to pay transaction fees.”
- In the “SEC’s Section 21(a) report of investigation of The DAO, the SEC acknowledged that Ether is a “virtual currency used on the Ethereum Blockchain.”
- However, it is arguable that Ether could have been deemed a “security” for purposes of U.S. securities laws in its early stages.



BIS Report on Cryptocurrencies

- The 2018 BIS Annual Economic Report describes the perceived shortcomings of cryptocurrencies, including:
 - Scalability. Cryptocurrencies do not scale like sovereign currency as cryptocurrencies require each user to download and verify the history of all transactions ever made, including amount paid, payer, payee and other details. The required storage and processing capacity may be more than the internet can handle.
 - Stability of Value. Cryptocurrencies have unstable value due to the absence of a central issuer with a mandate to guarantee the currency's stability.
 - Trust in the Finality of Payments. There is uncertainty about the finality of individual payments, as well as trust in the value of individual cryptocurrencies.



Access: Centralized Exchanges

- Off blockchain entities that facilitate conversions of fiat currency to cryptocurrencies, cryptocurrencies to cryptocurrencies or cryptocurrencies to fiat currencies.
- Some centralized exchanges, such as Bittrex, also allow for the trading of tokens.
- May solely offer exchanging services or order books.
- May offer custody services or provide wallet services to customers.
- Transactions on an exchange are not on the blockchain; they are on the exchanges' private ledger.
- Typically require KYC compliance and identity document submission.
- May be faced with downtime or hacking attempts.
- Examples: Binance, Bittrex, GDAX, Gemini



Centralized Exchanges: Issues

- Legal and compliance staff supporting a firm's trading or facilitation of trading by third parties on a centralized exchange should consider:
 - Ownership and control
 - Basic operation and fees
 - Regulation
 - Trading policies and procedures
 - Outages and other suspensions of trading
 - Internal controls
 - Cybersecurity and business continuity
 - Privacy and money laundering



Access: Decentralized Exchanges

- A new technology that facilitates cryptocurrency trading on a distributed ledger.
- Order solicitation and preliminary coupling with a counterparty may occur off exchange.
- Does not rely on a third-party service to hold the customer's funds.
- Trades are peer-to-peer through an automated process.
- Examples: Bitsquare, 0X, EtherDelta
- In 2018, the SEC settled an enforcement action against the founder of EtherDelta – Zachary Coburn. The exchange relies on smart contract technology. The SEC claimed that Mr. Coburn exercised sole and complete control over the exchange's operations and EtherDelta should have registered with the SEC as a national securities exchange or have been lawfully exempt.



Access: Derivatives Regulated Exchanges

- On December 1, 2017 three exchanges regulated by the CFTC self-certified new cash-settled derivatives contracts based on Bitcoin.
 - The Chicago Mercantile Exchange and the CBOE Futures Exchange proposed to offer margined futures contracts related to the price of Bitcoin. CFE Futures began trading on December 10; CME Futures began trading December 17.
 - The Cantor Exchange will list fully collateralized binary options based on the price of the same virtual currency.
- Nadex
 - On December 18, 2017, the non-intermediated exchange began offering trading in Nadex Bitcoin Spreads.
- TeraExchange, LLC, a CFTC-regulated SEF, began trading non-deliverable Bitcoin forward contracts based on the Tera Bitcoin Price Index in 2014.
- LedgerX was approved in July 2017 as a SEF and DCO for fully collateralized digital currency swaps.



Access: National Securities Exchanges and ATSs

- On March 7, 2018 the SEC stated that entities aiming to operate as an ATS are subject to regulatory requirements and should register with the SEC as a broker-dealer and become a member of an SRO.
- ATS examples:
 - Liquid M Capital LLC / Templum
 - Coinbase has reportedly entered into discussions with the SEC about becoming an ATS.
- There are no US national securities exchanges that trade digital tokens.



Smart Contracts

- Smart contracts are self-executing contracts with the terms of the agreement between buyer and seller being directly written into lines of code which exist on a blockchain.
- Smart contracts have potential beyond the simple transfer of assets, being able to execute transactions in a wide range of fields, including insurance premiums and crowdfunding agreements.
- Blockchain-based applications might also incorporate smart contract code to carry out and automate their operations (e.g., ISDA Common Domain Model Project).



Smart Contracts

- Blockchains such as Ethereum, Neo and Tezos allow developers to program their own smart contracts.
- Among other things, smart contracts can:
 - Function as 'multi-signature' accounts, so that funds are spent only when a required percentage of people agree
 - Manage agreements between users
 - Store information about an application, such as domain registration information or membership records



ERC20 Protocol

- An important innovation in the creation of Ethereum-based tokens is the ERC20 protocol standard.
- Similar to how the HTTP protocol defined the internet, ERC20 is a protocol that defines a set of commands that a token should implement.
- ERC20 is not a technology, software, or piece of code, but rather a technical specification.
- The ERC20 protocol contains basic functions that tokens can implement to enable trading, including transferring tokens, inquiring the balance of tokens at a certain address, and the total supply of tokens.
- Essentially, ERC20 tokens are smart contracts that run on the Ethereum blockchain.



What Does This Mean for Funds?

- Any offer to sell securities must either be registered with the SEC or meet an exemption.
- Regulation D contains exemptions from this registration requirement.
- In general, securities acquired in a private placement are “restricted” and cannot be resold without registration or an applicable exemption.
- The JOBS Act includes a number of measures to facilitate capital formation, including:
 - An IPO on-ramp for a new category of issuer, “emerging growth companies.”
 - Removal of the prohibition against general solicitation and general advertising in certain private placements.
 - A new exemption under the Securities Act of 1933, as amended (Securities Act), for crowdfunding offerings.
 - An amendment to the Securities Act (informally referred to as Regulation A+) permitting companies to conduct offerings to raise up to \$50 million through a “mini-registration” process similar to Regulation A.
 - Higher triggering thresholds for SEC reporting obligations under the Securities Exchange Act of 1934, as amended (Exchange Act).



ETFs

- Generally, for an exchange-traded product to be approved, the exchange must have surveillance-sharing agreements with significant markets for trading the underlying commodity or derivatives on that commodity, and significant markets must be regulated.
- In January 2018, SEC Division of Investment Management issued a letter to two industry organizations indicating that the SEC would not approve registered funds to trade cryptocurrencies for the time being until questions regarding liquidity, custody and potential manipulation were answered satisfactorily.
- In July 2018, the SEC disapproved a proposed rule change by the Bats BZX Exchange, Inc. to permit its listing and trading of shares of the Winklevoss Bitcoin Trust. The SEC denied BZX's application, claiming that its proposed rule change was not consistent with requirements of applicable law, mainly "to prevent fraudulent and manipulative acts and practices" and "to protect investors and the public interest."
- In August 2018, the SEC declined to approve rule amendments proposed by NYSE Arca, Inc. and Cboe BZX Exchange, Inc. to authorize the listing and trading of shares of nine exchange-traded funds that planned to seek exposure to some or all of the bitcoin futures contracts traded on the Chicago Mercantile Exchange, Cboe Futures Exchange and/or any other US exchange that subsequently traded such contracts. This denial was by the SEC's Division of Trading and Markets pursuant to "delegated authority." However, the next day, the Commission stayed the staff's denial and indicated it would review the delegated action. In January 2019, Cboe BZX withdrew from the SEC a proposed rule change it initially filed in June 2019 to enable trading of shares of SolidX bitcoin shares issued by the VanEck SolidX Bitcoin Trust.



Calls for Self-Regulatory Organization

- Adding an additional layer of oversight on virtual commodity cash markets, in the form of self-regulation, is important for consumer protection and to ensure the integrity of these markets.
- At the February 2018 CFTC TAC meeting, Commissioner Brian Quintenz called for the consideration of whether the “SRO model could assist cryptocurrency exchanges establish and enforce standards that protect investors and deter fraud.”
- Seven of the largest cryptocurrency enterprises in the United Kingdom, including Coinbase, have formed a trade organization known as CryptoUK.
- In August 2018, the Virtual Commodity Association Working Group, was formed with Bitstamp, Inc., bitFlyer USA, Inc., Bittrex, Inc., and Gemini Trust Company, LLC. as the group’s initial participants. The Working Group will work towards establishing an industry sponsored, self-regulatory organization.
- In August 2018, the Japan Virtual Currency Exchange Association (JVCEA), composed of 16 cryptocurrency exchanges, formally submitted to Japan’s Financial Services Agency (FSA) a detailed proposal to form a self-regulatory organization.



Custody

- While there are many companies that provide wallet services, most of them may not qualify as custodians for the purposes of hedge funds and others that manage money on behalf of others.
- Hong Kong-based Xapo is currently the leading custodian in the digital currency space.
- Recently:
 - Fidelity announced it will launch its bitcoin custody service in March 2019.
 - In July 2018, Coinbase launched “Coinbase Custody” a digital assets custodian solution for institutional investor.
 - On September 13, 2018, BitGo Inc. was approved by the South Dakota Division of Banking as a public South Dakota Trust Company.

