

Cryptocurrencies, Smart Contracts and ICOs

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Overview of Presentation

- Introduction to Blockchain Technology and Cryptocurrencies
- The What and Wherefore of ICOs
- Regulatory Characterization
 - Securities Law Implications
 - CFTC Implications
 - Tax Considerations
 - Other Issues
- How ICOs are put together
- Concerns for the Cryptocurrency Fund Manager



**Overview of Blockchain Technology,
Smart Contracts and Cryptocurrencies**



Distributed Ledger/Blockchain

- What is Distributed Ledger / Blockchain?
 - “A distributed ledger is a database that is ***consensually shared and synchronized*** across network spread across multiple sites, institutions or geographies. It allows transactions to have public ‘witnesses,’ thereby making a cyberattack more difficult. The participant at each node of the network can access the recordings shared across that network and can own an identical copy of it. Further, any changes or additions made to the ledger are reflected and copied to all participants in a matter of seconds or minutes. Underlying the distributed ledger technology is the blockchain, which is the technology that underlies bitcoin.” See [Investopedia Definition of “Distributed Ledger”](#).
- Core principles of trust, verifiability, immutability and transparency.
- Distributed ledger as a technology will have multiple uses for multiple industries.
- Cryptocurrencies are just one aspect of the uses for blockchain.

Distributed Ledger/Blockchain

- Distributed ledger technology has multiple uses for multiple industries:
 - Financial services
 - Energy
 - Supply Chain Logistics
- Government blockchain initiatives:
 - State records on blockchain: Delaware, Illinois
 - Central bank digital currency initiatives: Uruguay, Sweden, Vietnam, Russia?, China?
- Cryptocurrencies are just one aspect of the uses for blockchain – but they are very important for the popularity of ICOs.

Distributed Ledger/Blockchain

- Bitcoin is a single purpose blockchain; it's purpose is limited to creation of Bitcoins.
- Ethereum is a distributed ledger separate and apart from Bitcoin. Currency of denomination for Ethereum is Ether.
- Ethereum is an application blockchain; it provides for the ability to create “smart contracts” on a distributed ledger. These smart contracts enable the issuance of separate digital tokens in exchange for a contribution of Ether or other cryptocurrencies or fiat currency to the sponsor.
- Ethereum has spawned a proliferation of over 350 cryptocurrencies that are based on smart contracts.
- These cryptocurrencies are the digital tokens that are typically offered in ICOs.

Distinguishing Among Tokens

- Digital tokens should be distinguished from primary cryptocurrencies.
 - Often issued pursuant to creation of a smart contract formed on Ethereum distributed ledger.
 - Many different purposes for tokens and can implicate various regulatory frameworks.
 - Often trade off-market. Not all cryptocurrency exchanges accept them.
- Digital tokens often have the following features alone or in combination:
 - Equity like features (e.g., voting rights and rights to distributions).
 - Debt like features (e.g., right to receive fixed additional tokens or revenue from mining or other activities).
 - Consumptive use tokens (e.g., prepayment of right to use services on the platform).



The Mysterious Lure of the ICO

The ABCs of ICOs

- Tokens created by Ethereum smart contract applications are commonly issued in Initial Coin Offerings, or “ICOs”
- Why do an ICO? *Perceptions* of:
 - Easy fund raising / No investor relation headaches
 - No dilution of ownership
 - No liquidation preference
 - ***Easy Transferability***
- Primary role of secondary market
- Crowdfunding / General Solicitation

Forbes

JULY 27, 2017



CRYPTO-COIN MAGICIAN
OLAF CARLSON-WEE

AT 27, HE'S CREATED
\$200 MILLION OUT
OF THE ETHER

**THE CLOUD
100**
THE HOTTEST
COMPANIES
IN TECH'S
HOTTEST
SECTOR
SILICON
VALLEY'S
NEW RIVAL
TOM SIEBEL'S
SECOND ACT

THE CRAZIEST BUBBLE EVER

BITCOIN HAS SPAWNED A \$100 BILLION
CRYPTOCURRENCY MANIA.
HOW SMART PEOPLE ARE MAKING
STUPID MONEY OFF GREEDY FOOLS.

cy

CryptoMania!

Increase in Bitcoin from 11/06/2016 – 11/06/2017

\$7,100.09
BITCOIN PRICE

+\$6,389.35
SINCE LAST YEAR (USD)

+898.97%
SINCE LAST YEAR (%)



Source: Coinbase. Please note that there are multiple cryptocurrency exchanges that have multiple values for a cryptocurrency at any given time.

CryptoMania!

Increase in Ether from 11/06/2016 – 11/07/2017

\$299.76

ETHEREUM PRICE

+\$288.74

SINCE LAST YEAR (USD)

+2620.15%

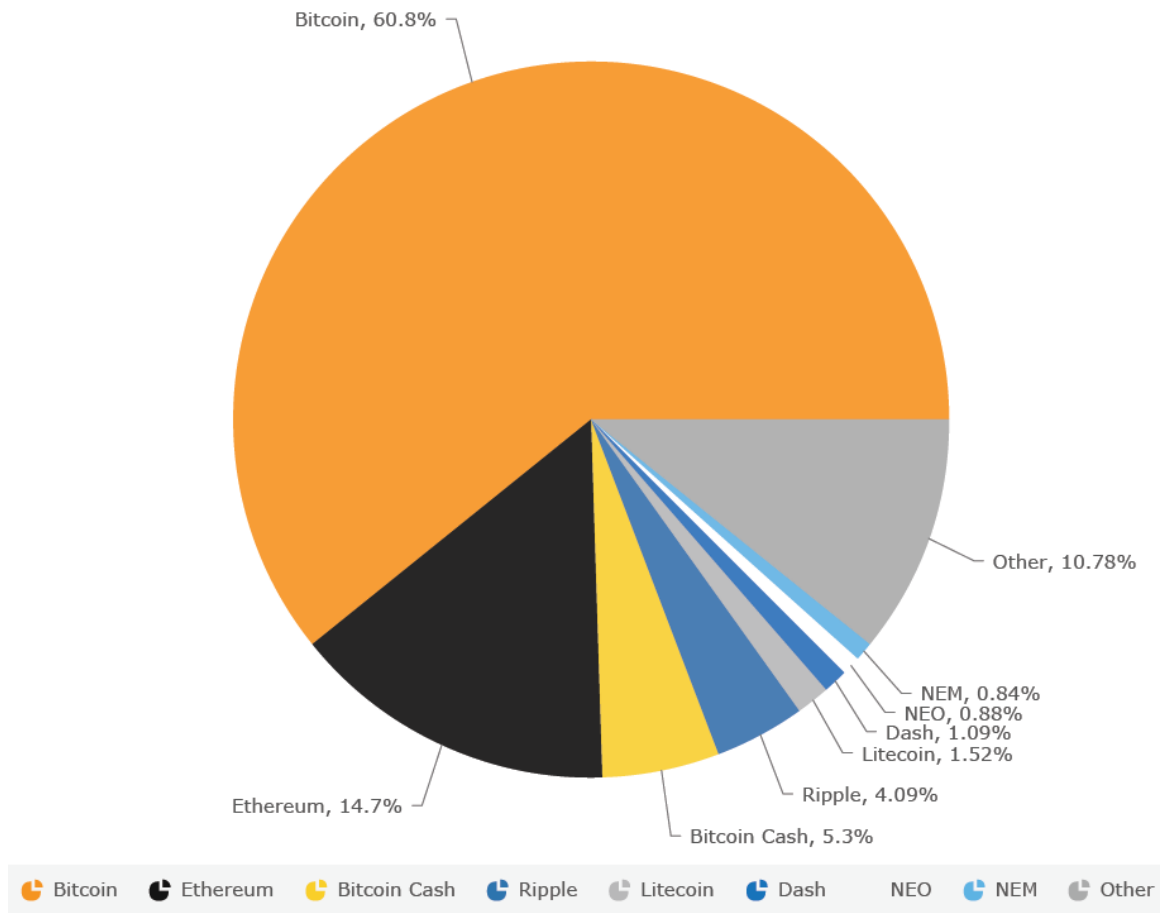
SINCE LAST YEAR (%)



Source: Coinbase. Please note that there are multiple cryptocurrency exchanges that have multiple values for a cryptocurrency at any given time.

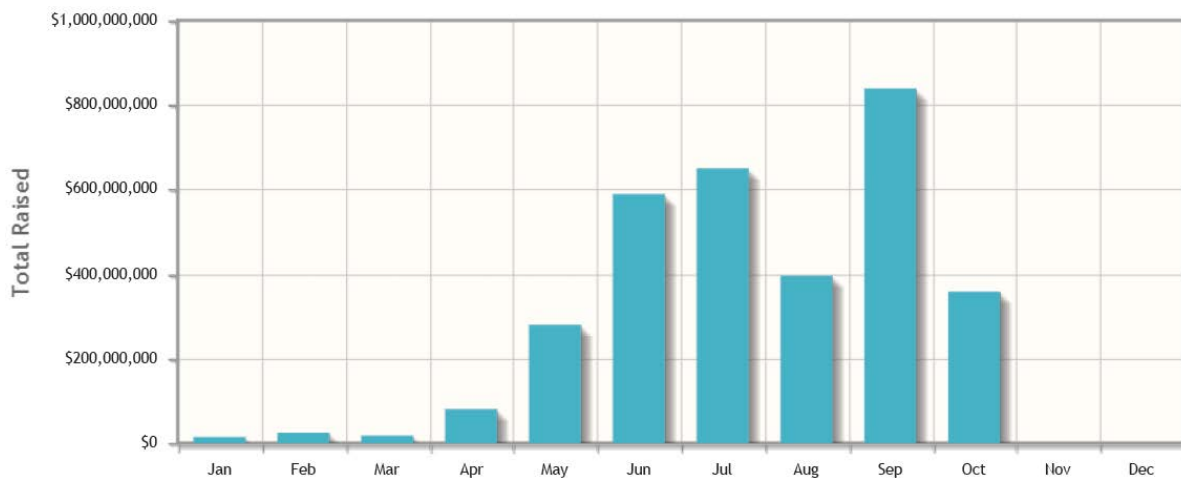
Cryptomania!

Cryptocurrencies by Market Cap
coin.dance



Source: CoinDance as of November 6, 2017.

Cryptomania!



Totals raised are grouped by the ICO closing date and are valued using BTC exchange rate at that time. Data correct on 16th October 2017 14:00 UTC

Source: CoinSchedule, last checked November 7, 2017.

Total Raised: **\$3,256,704,359**

Total Number of ICOs: **203**

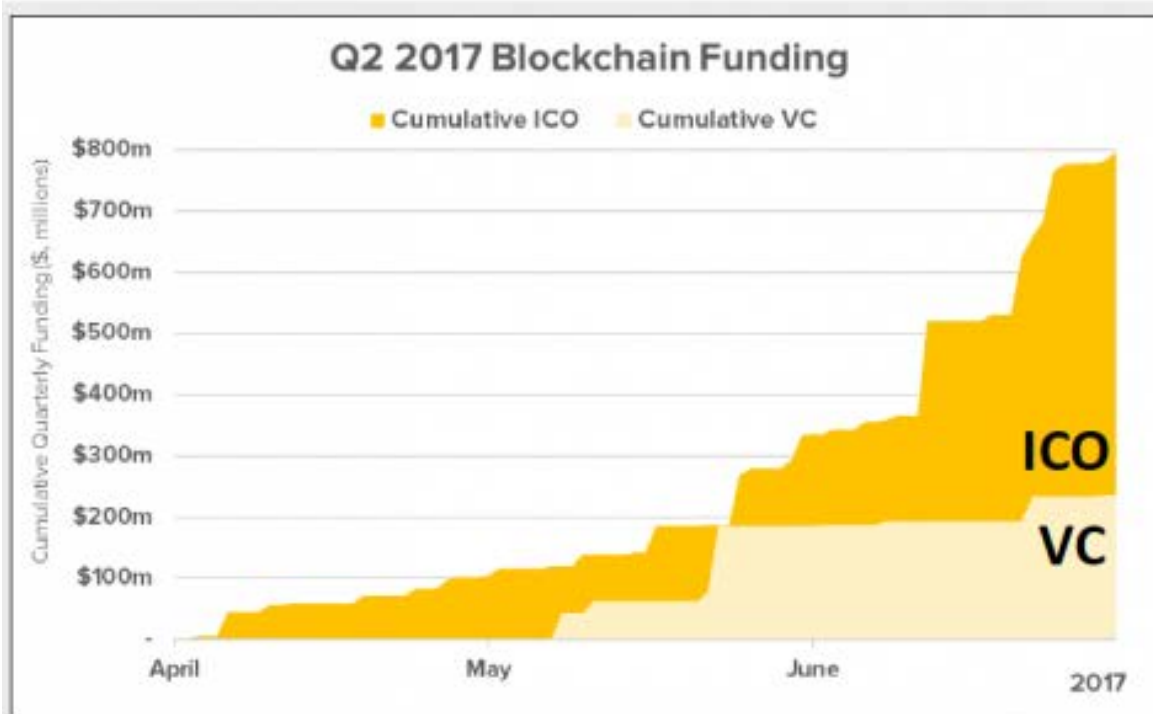
Top Ten ICOs of 2017

Position	Project	Total Raised
1	Filecoin (https://filecoin.io/)	\$257,000,000
2	Tezos (https://www.tezos.com/)	\$232,319,985
3	EOS Stage 1 (https://eos.io/)	\$185,000,000
4	Paragon (https://paragoncoin.com/en)	\$183,157,275
5	Bancor (https://bancor.network/)	\$153,000,000
6	Kin (http://kin.kik.com/)	\$97,041,936
7	Status (https://status.im/)	\$90,000,000
8	TenX (https://www.tenx.tech/)	\$64,000,000
9	MobileGO (https://mobilego.io/)	\$53,069,235
10	KyberNetwork (https://kyber.network/)	\$48,000,000

Cryptomania!

- The tantalizing allure of easy fundraising?

Blockchain Funding Grew Dramatically in Q2, ICOs Exceeded VC by Over 3x



ICO
\$797m

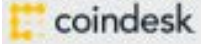
VC
\$235m

Top ICO Deals:
Bancor - \$153m
Status - \$95m
TenX - \$83.1m
MobileGo - \$53.1m

Top VC Deals:
R3 - \$107m
Canaan - \$43.6m
Blockchain - \$40m
Axoni - \$20m

Q1
ICO \$36m
VC \$107m

Data Sources: [CoinDesk's Blockchain Capital Database](#), [CoinDesk ICO Tracker](#)
Notes: Deals under \$100,000 excluded, \$ amount at time raised, including only fundraisers ending in 'Q2 2017' (4/1/17 - 6/30/17)



Cryptomania!

Paris Hilton 
@ParisHilton

Tweets **28.6K** Following **6,511** Followers **16.1M** Likes **12.6K**



Paris Hilton  @ParisHilton · Sep 3
Looking forward to participating in the new @LydiaCoin
Token! #ThisIsNotAnAd #CryptoCurrency #Blockchain #ETH #Blockchain

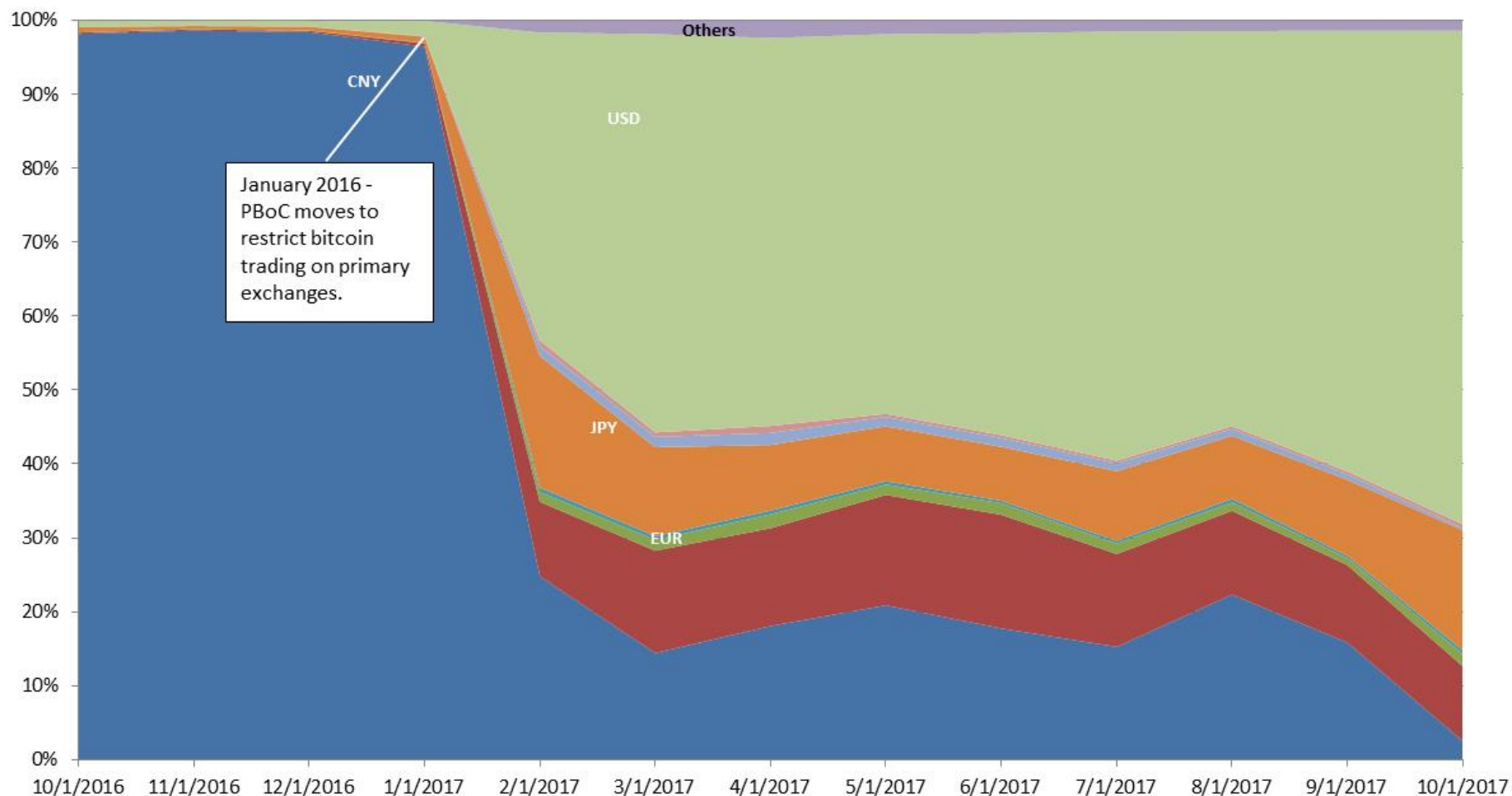


IT'S MANIC!!!

 512  1.0K  2.8K

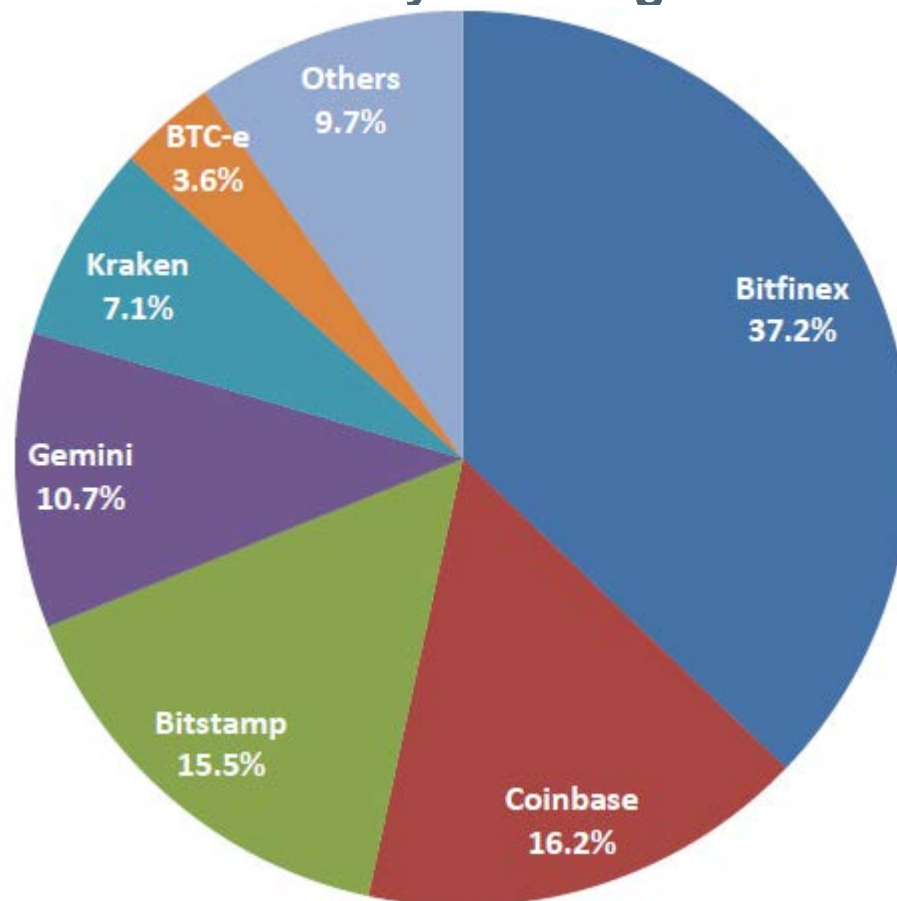
Cryptocurrency Secondary Markets

- % of BTC Trading Volume by Currency (10/1/2016 – 11/06/2017)



Cryptocurrency Secondary Markets

Approximate market share of key exchanges



NOTE: This chart does not reflect the free-exchange trading platforms and OTC trades done off platform!

Perspectives

“[Bitcoin] isn’t going to work. You can’t have a business where people can invent a currency out of thin air and think that people who are buying it are really smart.

“If you were in Venezuela or Ecuador or North Korea or a bunch of parts like that, or ***if you were a drug dealer, a murderer, stuff like that, you are better off doing it in bitcoin than US dollars***...[T]here may be a market for that, but it would be a limited market.”

- Jamie Dimon, CEO of JP Morgan Chase
September 12, 2017

Perspectives

“[W]hy might citizens hold virtual currencies rather than physical dollars, euros, or sterling? Because it may one day be ***easier and safer than obtaining paper bills***, especially in remote regions. And because virtual currencies could actually become more stable. . . .

“[V]irtual currencies might just give existing currencies and monetary policy a run for their money. . . .”

- Christine LaGarde, IMF Managing Director
September 29, 2017

Perspectives

“As somebody who’s been around financial bubbles a [long time], **my ‘alarmo-meter’ is at DEFCON 5.** My sense is that most of the conversation that goes on around [cryptocurrencies] is essentially designed to obscure. [It] uses big ideas and technical jargon to evade fundamental questions that should be asked [at the SEC] about any investment product

“I’m deeply, deeply frustrated with **a conversation that appears to be designed to evade the law in the context of what appears to be obviously a bubble.**”

- Damon Silvers, Director of Policy, AFL-CIO
Speaking at SEC Investor Advisory Committee
October 12, 2017

Perspectives

“I’m a big believer in the potential of what a cryptocurrency can do. You see huge opportunities, but what we’re talking about today, it’s much more of a speculative platform. . . It’s heavily used for money laundering.”

- Larry Fink, CEO of BlackRock
October 3, 2017



Securities Regulatory Issues



Securities Regulation

- Whether a digital token is a security depends on the facts and circumstances of the particular case
- If a token is a security it can be offered and sold only in compliance with United States securities law
 - Under the Securities Act, is the offering properly registered or exempt from registration? If exempt, are the investors accredited investors and did they receive adequate disclosure?
 - Under the Exchange Act, is the offering conducted through a platform compliant with Regulation Crowdfunding? Are any intermediaries, such as token exchanges or brokers, registered as broker-dealers?
 - Depending on the structure of a token offering, investment advisory considerations may be applicable, including the SEC custody rule. Similarly, investment company act issues may come into play.

When are Tokens Securities?

- Recently, the U.S. Securities and Exchange Commission issued its report concluding that the tokens issued by the DAO constituted securities.
- The DAO - acronym for “decentralized autonomous organization,” i.e., a virtual organization embodied in computer code and executed on a distributed ledger or blockchain.
- Investors contributed Ether in exchange for DAO Tokens.
- DAO Tokens had limited voting and ownership rights.
- The DAO intended to earn profits by funding projects that would provide DAO Token holders a return on investment.
- No limit on number of DAO Tokens offered or on the number or accreditation status of purchasers
- Capital raise equivalent to US\$150 million.

When are Tokens Securities?

- SEC applied the US Supreme Court’s *Howey* test to determine whether DAO Tokens constituted an “investment contract” (and thus a security) under Section 2(a)(1) of the U.S. Securities Act of 1933 and Section 3(a)(1) of the U.S. Securities Exchange Act of 1934.
- Pursuant to the *Howey* test a transaction is an “investment contract” if all of these features exist:
 - (1) an investment of money
 - (2) in a common enterprise
 - (3) with a reasonable expectation of profits
 - (4) to be derived from the entrepreneurial or managerial efforts of others.

SEC v. W.J. Howey Co., 328 U.S. 293, 301 (1946)

When are Tokens Securities?

- Utility tokens – i.e., those with a consumptive use -- might not be securities because of their consumptive or redemptive qualities.

“[W]hen a purchaser is motivated by a desire to use or consume the item purchased – ‘to occupy the land or to develop it themselves,’ as the *Howey* Court put it, - the securities laws do not apply. . . .” *United Housing Foundation, Inc. v. Forman*, 421 U.S. 837 (1975).
- Securities regulatory characterization may depend on the nature of the smart contract, features of the token, accounting treatment, the use of proceeds and the extent and nature of presale or build-out activities.
- The SEC will look closely at facts and circumstances and whether a token represents consumptive value or an investment contract. An important consideration may be whether the consumptive use is immediately available.

When are Tokens Securities?

- ICO sponsors and intermediaries need to keep in mind that *Howey* might not be the only test that could be applied.
- The application of a particular test may depend in part on whether the token has debt or equity features as discussed in a prior section
 - *Risk Capital Test*. *Silver Hills Country Club v. Sobieski*, 55 Cal. 2d 811 (1961).
 - *Family Resemblance Test*. *Reves v. Ernst & Young*, 494 U.S. 56, 66-67 (1990).

(1) “the motivations that would prompt a reasonable seller and buyer to enter into [the transaction]”; (2) “the ‘plan of distribution’ of the instrument,” including an assessment of whether “there is common trading” of the instrument “for speculation or investment”; (3) “the reasonable expectations of the investing public”; and (4) “whether some factor such as the existence of another regulatory scheme significantly reduces the risk of the investment, thereby rendering application of the Securities Acts unnecessary.”
- Application of state laws.
- Accounting treatment can guide regulatory analysis.

SAFT – Mitigating Risk?

- Simple Agreement for Tokens (“SAFT”) – Balances (i) need for fundraising to build a platform, and (ii) *attempting* to ensure a token issued after the buildout is not a security and thus can trade on a secondary basis.
- The token is issued sometimes months after the SAFT fundraising.
- SAFT issued typically in a Rule 506(c) offering and deemed a security. Simple document verifying investor identity and accredited investor status. Issuance benefits from NSMIA pre-emption.
- Token issued subsequent to SAFT deemed not a security based on consumptive use.
- **Untested.**

SAFT – Mitigating Risk?

- SAFT is not a cure-all for utility tokens. Potential limitations:
 - Is the token sold primarily to persons who could never use it for its intended purpose and whose primary interest is secondary market trading?
 - How much utility is required for the token not to be a security? Will managers of smart contract continue to be adding value over time?
 - Will managers of smart contract be able to manipulate redemption value of a token?
 - Will managers of smart contract be able to control the supply/demand of tokens in the secondary marketplace?
- SAFT may enjoy NSMIA pre-emption, but the tokens, which are purportedly not securities, have no such pre-emption. How might one of the state regulators view a token issued subsequent to a SAFT?



Commodity Issues



Commodity Exchange Act

- The Commodity Exchange Act (“CEA”) defines the term “commodity” broadly to include virtually all goods and articles, as well as “all services, rights, and interests in which contracts for future delivery are presently or in the future dealt in.”
 - Commodity futures or options on futures must be traded on a designated contract market (“DCM”).
 - Swaps may be traded on a swap execution facility (“SEF”), a DCM or bilaterally.
 - To trade on a SEF or bilaterally the parties must be “eligible contract participants” (“ECP”);
 - ECPs include:
 - a financial institution, insurance company, registered investment company, commodity pool* and pension plan with assets > \$5 million, entities with assets > \$10 million;
 - a governmental entity;
 - an individual who has invested on a discretionary basis > \$10 million, among others;
- * *(unlike with retail forex pools there is no look-through to commodity pool participants to determine the ECP status of a cryptocurrency commodity pool.)*

CFTC Regulatory Jurisdiction

- CFTC regulatory jurisdiction extends to any agreement, contract, or transaction in any commodity that is —
 - (I) entered into with, or offered to (even if not entered into with), a person that is not an ECP or eligible commercial entity; and
 - (II) entered into, or offered (even if not 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.
- CFTC regulatory jurisdiction generally does not extend to “spot” transactions, i.e. transactions for immediate delivery.
 - For fiat currency and most other commodities, the spot market cut-off is T+2.
 - For cryptocurrency, the spot market includes a contract of sale that results in “actual delivery” within 28 days.

What is “actual delivery”?

- In June 2016, the CFTC brought and settled charges against BFXNA Inc., doing business as Bitfinex, for allegedly engaging in prohibited, off-exchange commodity transactions with retail clients and failing to register as a futures commission merchant. *In the Matter of BFXNA Inc. d/b/a Bitfinex*, CFTC Docket No. 16-19 (June 2, 2016)
- Because Bitfinex retained control of the private keys involved and could force liquidate positions if account equity fell below a preset level, the CFTC held that there was no actual delivery.
 - It may be possible to work around the delivery issue by trading in cryptocurrency options or swaps.
 - Following *Bitfinex*, a petition for rulemaking was filed asking the CFTC to further clarify what is meant by “actual delivery,” but to date the CFTC has not responded.
 - CFTC Chairman Giancarlo recently stated the CFTC staff is working on rules or other guidance for actual delivery in the virtual currency context, but to date this has not appeared.

Cryptocurrency Intermediaries

- TeraExchange, LLC, a SEF, entered the cryptocurrency market in 2014 by listing a Bitcoin swap for trading.
- North American Derivatives Exchange Inc. (“NADEX”), a DCM, listed binary options based on the Tera Bitcoin Price Index from November 2014 to December 2016.
- LedgerX, LLC (“LedgerX”) registered with the CFTC as a SEF and Derivative Clearing Organization (“DCO”) in July 2017. It plans to list cryptocurrency options and day-ahead swaps.
- CME and CBOE have announced plans to launch bitcoin futures contracts.



Tax Issues



Taxation of Cryptocurrency

- IRS regards cryptocurrency as property. See [Notice 2014-21](#).
- IRS position compromises use as a payment system.
- John Doe Litigation with Coinbase.
- Pseudonymity raises issues of tax reporting, compliance with bearer instruments restrictions, withholding.
- Congressional Policy Moves.



Concerns for the Cryptocurrency Fund Manager



Cryptocurrency Fund Managers

- Are you an Investment Adviser?
 - Custody
 - State / Federal Registration
 - Valuation of Assets / Audits
 - Compliance Policies and Procedures
- Are you a Commodity Pool Operator, Commodity Trading Advisor or Futures Commission Merchant?
- Efficient tax management for trading.

Growing International Consensus

- Regulators globally have expressed concern about the potential for fraud, money laundering, tax evasion and cybersecurity risks.
- Securities law implications of certain digital-token offerings are also of particular concern.
- Regulators from the following countries have signaled concerns with ICOs:
 - Singapore
 - Canada
 - Peoples Republic of China
 - Republic of Korea
 - Russian Federation
 - Hong Kong
 - United Kingdom
 - Malaysia
 - Thailand
 - Dubai
 - Cayman Islands?
 - Switzerland?

Regulators Concerns

- Tax Evasion
- Cybersecurity
- Money Transmission Laws – federal and state
- Extraterritorial Considerations
- Accounting Treatment of Utility Tokens
- Proper Custody
- Promoter Liability
- Anti-money Laundering



Q & A

K&L GATES