Bitcoin, Ether, and ICOs:
DIGITAL CURRENCY ISSUES FOR FUND MANAGERS

Presented by
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Gregory S. Rowland, Investment Management
Mary Conway, Tax
Reuben Grinberg, Financial Institutions Group

October 12, 2017

Davis Polk

CLE CREDIT AVAILABLE
1. Background and Growth of Digital Currencies
2. U.S. Regulation at 50,000 Feet
3. Regulatory Structures for Digital Currency Funds
4. Tax Issues
5. Custody – Practical and Regulatory Issues
Background on Digital Currencies - Bitcoin

- **Origins**
  - Cypherpunks: promoters of cryptography to enhance autonomy and privacy
  - 1998: Wei Dai’s b-money proposal
  - 2008: Satoshi Nakamoto’s bitcoin

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**Limited Total Supply**

21m

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**Unbacked**

**Pseudo-anonymous**

**P2P / Decentralized**

**Exchange Value**

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**Bitcoin Market Price (USD)**

October 9, 2017: $4,777

Data source: blockchain.info

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**Background on Digital Currencies - Bitcoin**
Background on Digital Currencies – The Distributed Ledger

The ledger

<table>
<thead>
<tr>
<th>Address</th>
<th>Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFwwDQYJKoZIEBCQ...</td>
<td>0</td>
</tr>
<tr>
<td>QADSwAwSAJBAKDY...</td>
<td>2</td>
</tr>
<tr>
<td>hzYxuXaGhVBOUDF1...</td>
<td>0</td>
</tr>
<tr>
<td>10lCIXhzYXuXaGhVB...</td>
<td>0.5</td>
</tr>
<tr>
<td>miqxSMD9wbc0lsLQ...</td>
<td>0</td>
</tr>
<tr>
<td>vxA3cL5ch1SHyEG...</td>
<td>4</td>
</tr>
</tbody>
</table>

The “blockchain”

2 BTC Alice → Bob
0.5 BTC Carol → Dan
4 BTC Eric → Frank
5 BTC Ben → Fred
1 BTC Hank → Rob
7 BTC Bill → Jen
8 BTC Sue → Lara
0.1 BTC Tim → Ian
3 BTC Sam → John

Technical features

- Mining
- Hashing
- Proof of Work
- Verification
- Public Keys
- Private Keys
- Transaction Fees
- SHA-256
- Nonce
- Difficulty Targets
- Cryptography
- Nodes
How do you get Bitcoin?

- Mining
- Trading
- Payment for Services

Custodians / Wallet Providers
- xapo
- BitGo
- coinbase
- GEMINI
- KINGDOM TRUST
- bread

U.S. & Foreign Exchanges / Dealers
- coinbase
- GDAX
- BITSTAMP
- GEMINI
- kraken
- BTC

OTC Market
- Genesis
- CIRCLE
- B2C2 Ltd.

Derivative Exchanges
- LedgerX
- TERAEXCHANGE

Payment Processors
- coinbase
- bitpay
Background on Digital Currencies - Altcoins

Altcoins, tokens, appcoins, digital currency, virtual currency, digital asset, metatokens…

No widely accepted definitions

Forks, air drops and ICOs

Top 5 Digital Currencies (out of 1157) by Market Cap

<table>
<thead>
<tr>
<th>#</th>
<th>Name</th>
<th>Market Cap</th>
<th>Price</th>
<th>% Change (24h)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bitcoin</td>
<td>$81,280,059,334</td>
<td>$4891.84</td>
<td>4.46%</td>
</tr>
<tr>
<td>2</td>
<td>Ethereum</td>
<td>$29,035,632,270</td>
<td>$305.50</td>
<td>2.83%</td>
</tr>
<tr>
<td>3</td>
<td>Ripple</td>
<td>$9,858,593,900</td>
<td>$0.255401</td>
<td>-5.83%</td>
</tr>
<tr>
<td>4</td>
<td>Bitcoin Cash</td>
<td>$5,243,384,382</td>
<td>$314.36</td>
<td>-0.90%</td>
</tr>
<tr>
<td>5</td>
<td>Litecoin</td>
<td>$2,730,895,298</td>
<td>$51.22</td>
<td>0.86%</td>
</tr>
</tbody>
</table>

Data source: coinmarketcap.com
Enormous Interest in Digital Currencies - ICOs

Cumulative ICO Fundraising vs. Cumulative VC Investment in Digital Currency & Blockchain

- September 25, 2017: $2.37 billion
- Tezos ICO: $232 million
- Ethereum ICO: $18.4 million

# U.S. Regulation at 50,000 Feet

## Backdrop of all regulatory action
- Promise of DLT and digital currencies
- Hacking of exchanges
- Silk Road and other drug marketplaces
- Bitcoin Ponzi schemes

## WannaCry and other ransomware
- Concerns about large-scale tax evasion
- BitInstant and BTC-e, exchanges facilitating money laundering

### SEC
- Consensus among practitioners and academics: not a security, though SEC has not explicitly confirmed
- Some tokens are securities
- Some ICOs are illegal, public securities offerings

### CFTC
- BTC and virtual currencies are commodities
- Some tokens may be commodity interests
- LedgerX, CBOE planning bitcoin derivatives
- Beware Rule 180.1

### Tax
- IRS and states view BTC and virtual currencies as property
- U.S. Federal – property (not currency)
- State – varies (e.g., exempt from NY sales/use tax)
- Non-U.S. – varies (some treat as currency)
- Much uncertainty (e.g., forks)

### FinCEN
- Exchanges must register as MSBs
- AML/KYC requirements

### State Money Transmitter Regulators
- Exchanges / dealers must be licensed in most states
- 1-2yr, $2mm process
- Ongoing prudential regulation

### NYDFS
- BitLicense required for Virtual Currency Business Activity
- Custody for others included
- Not for mere investment for self or use
- Trust bank alternative scheme

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**DavisPolk**
### Existing U.S. Investment Vehicles Attempting IPOs

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SolidX Bitcoin Trust</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Rejected</td>
<td>-</td>
</tr>
<tr>
<td>Winklevoss Bitcoin Trust ETF</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Appealed</td>
<td>-</td>
</tr>
<tr>
<td>Bitcoin Investment Trust (GBTC)</td>
<td>X</td>
<td>✓</td>
<td>X</td>
<td>Withdrawn</td>
<td>$808 mm</td>
</tr>
<tr>
<td>VanEck Vectors Bitcoin Strategy ETF</td>
<td>✓</td>
<td>X</td>
<td>✓</td>
<td>Withdrawn</td>
<td>-</td>
</tr>
<tr>
<td>EtherIndex Ether Trust</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Withdrawn</td>
<td>-</td>
</tr>
<tr>
<td>Proshares (long and short funds)</td>
<td>✓</td>
<td>X</td>
<td>X</td>
<td>Just Filed</td>
<td>-</td>
</tr>
<tr>
<td>Rex (Short) Bitcoin Strategy ETF</td>
<td>✓</td>
<td>X</td>
<td>✓</td>
<td>Withdrawn</td>
<td>-</td>
</tr>
</tbody>
</table>

In 2017, the SEC Staff rejected exchange listing applications:

- The SEC based its decision on the unregulated nature of underlying Bitcoin markets.
- GBTC, as part of its efforts to be listed on NYSE Arca, has argued that the SEC test employed to reach these decisions, designed for physical commodity ETPs, is inappropriate for digital currencies.
### Sample of Foreign Existing Investment Vehicles

<table>
<thead>
<tr>
<th>Investment Vehicle</th>
<th>Country</th>
<th>Type</th>
<th>Exchange Listing Status</th>
<th>In the News</th>
</tr>
</thead>
<tbody>
<tr>
<td>UFX</td>
<td>Cayman Islands</td>
<td>Fund</td>
<td>N/A</td>
<td>“UFX Trading Platform Accepts Deposits in Bitcoin, Offers 400X Leverage.” BlockStreet (Oct. 29, 2015)</td>
</tr>
</tbody>
</table>

### Sample of U.S. PE and VC Funds

<table>
<thead>
<tr>
<th>Investment Vehicle</th>
<th>Type</th>
<th>In the News</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polychain Capital</td>
<td>Invests in diversified portfolio of blockchain tokens</td>
<td>“Polychain Capital…now has $200 million in assets under management.” Crypto Boom: 15 New Hedge Funds Want in on 84,000% Returns. Forbes (July 12, 2017)</td>
</tr>
</tbody>
</table>
| Galaxy Digital Assets Fund | Reported that it will invest in digital currencies, ICOs and related companies | “A Crypto Fund King Says Bitcoin Will Be the Biggest Bubble Ever”, Bloomberg (Sept. 26, 2017) (“He is said to raise $500 million…[He] declined to confirm or deny that he’s raising a fund…”)}
Ways to Invest in Digital Currencies

- **Directly**
  - Buy digital currencies on exchanges and/or OTC trading desks

- **Derivatives**
  - Enter into derivatives contracts that provide long or short exposure
  - LedgerX (a SEF and DCO) will offer put and call Bitcoin options and “day-ahead” swaps
  - In August 2017, CBOE announced plans to offer cash-settled bitcoin futures in 4Q 2017 or early 2018

- **Securities**
  - Buy securities of vehicles that hold digital currencies or exposure to digital currencies
### Funds that Invest in Securities
- Advisers Act Custody Rule
  - Are digital currencies “funds” or “securities” that are required to be held by a qualified custodian, such as a bank, broker-dealer, or an FCM?
- Alternatives to investing directly in digital currencies: derivative exposure or in securities of funds
  - Potential commodity pool operator (CPO) status
  - Funds of digital currency funds

### Commodity Pools
- CEA has no equivalent to the Advisers Act Custody Rule
- Commodity Pools can invest in spot commodities
- Status of pools with securities managed by RIAs

### Digital Currency Funds
- Any securities or derivatives: the same issues as to the left
- Solely digital currencies: Outside Advisers Act and custody rule?
- **Compliance still important!**
**Tax Issues**

|--------------------|----------------------------------------|---------------|
| ▪ Under IRS Notice 2014-21, “convertible” virtual currency, such as bitcoin:  
  ▪ Is property  
  ▪ Can be held as a capital asset  
  ▪ Is not treated as “currency” that can generate foreign currency gain or loss (which is generally treated as ordinary income) | ▪ Fair market value (“FMV”) of virtual currency received as payment taken into account in determining income  
  ▪ Use of virtual currency as mode of payment treated as sale of virtual currency for FMV  
  ▪ Payments made in virtual currency may be subject to information reporting and backup withholding | ▪ Basis of blocks of virtual currency acquired at different times  
  ▪ Can separate lots be identified for a disposition?  
  ▪ Is virtual currency such as bitcoin a “commodity” for U.S. federal income tax purposes?  
  ▪ Is a token issued in an ICO a security for U.S. federal income tax purposes?  
  ▪ Is a virtual currency “fork” a realization event? If so, what is the proper treatment of that realization event?  
  ▪ What are the tax consequences of an “air drop”? |

“John Doe” summons issued to Coinbase seeking information on transactions for 2013-2015.
## Custody – Practical and Regulatory Issues

### Different custody models
- **Self**: owner of the coins holds custody
- **Full Custody**: custodian has full control over the owner’s coins
- **Multifactor**: multiple parties needed to authorize transactions
- Important to do **due diligence** on type of custody involved before choosing a custodian

### New York’s BitLicense and other state custody requirements
- “[I]nvolving New York or a New York Resident”: “storing, holding, or maintaining custody or control of Virtual Currency on behalf of others”
- Other state requirements vary. ULC model statute not yet adopted
- Potential technical arguments:
  - No one has custody
  - Not “on behalf of others”

### What about a securities custodian or an entity registered with the CFTC?
- National banks preempt state custody licensing requirements.
- Broker-dealers, SEFs, DCOs, and FCMs, etc. likely exempt to the extent that they are engaged in regulated activities
Digital Currency, Blockchain and Payments
Thought Leadership

Davis Polk “BitLicense” Visual Memo

Praise for our proposed rule memo: “This is the best and most comprehensive overview of the BitLicense, its provisions, its pitfalls, and how it affects the various actors in the bitcoin ecosystem. Thanks to Davis Polk for sharing. (Of course, only lawyers could break down 40 pages of regulations into a 43 page presentation...but it’s worth the read nevertheless.)”

-Ryan Selkis, Most Insightful Journalist, Blockchain Awards presented by Bitcoin Foundation and Blockchain.info

BeyondSandbox.com

BeyondSandbox.com is Davis Polk’s virtual currency and blockchain resources website, tracking the latest developments in this fast-moving area.

Davis Polk Memo Summarizing the OCC FinTech Charter

Beyond FinTech: The OCC’s Special Purpose National Bank Charter

The stunning rise of ICOs

The SEC’s guidance comes at a time when ICOs are experiencing exponential growth, with $1.2 billion raised by more than fifty projects in the first half of 2017 alone, according to a July report by CoinDesk Research. Before the SEC’s guidance, ICOs were poised to dwarf venture capital funding of virtual currency and blockchain-related startups.

The OCC’s proposed framework for granting a special purpose national bank charter (the ‘Charter Proposal’) marks a significant advance by providing the benefits of a national charter, and a more regulated environment for these innovative products. The OCC’s proposed framework could also help to support the development of more robust and transparent regulatory standards for the digital currency and blockchain industries.

Davis Polk on SEC’s Confirmation that some ICOs are Illegal

SEC Confirms That Some Initial Coin Offerings Are Illegal Unregistered Securities Offerings

July 27, 2017

In a much-anticipated action, on July 25 the SEC issued a Section 3(b) order of its investigation into an offering of digital tokens by “The DAO,” an unincorporated virtual organization. Through declining to take enforcement action against The DAO, the SEC did not address whether an unregistered sale of securities can be an illegal offering of securities. Similarly, the SEC did not consider whether the securities’ purchasers can be considered “accredited investors” under Regulation D.

The SEC’s guidance comes at a time when ICOs are experiencing exponential growth, with $1.2 billion raised by more than fifty projects in the first half of 2017 alone, according to a July report by CoinDesk Research. Before the SEC’s guidance, ICOs were poised to dwarf venture capital funding of virtual currency and blockchain-related startups.
Mr. Hall is a member of Davis Polk’s Corporate Department and head of the firm’s corporate governance practice. He works on the full range of capital markets transactions, and advises public companies and regulated entities on corporate governance and financial regulatory compliance. He is a frequent speaker on topics of corporate governance and SEC compliance.

Mr. Hall began his career at Davis Polk in 1989. Between 2003 and 2005 he served at the U.S. Securities and Exchange Commission, ultimately as Managing Executive for Policy under Chairman William H. Donaldson. As a member of Chairman Donaldson’s senior management team, Mr. Hall assisted in directing the Commission’s policy-making and enforcement activities.

RECOGNITION

Mr. Hall is ranked as a leading capital markets lawyer in several legal industry publications, including:

- *Chambers Global: The World’s Leading Lawyers for Business*
- *Chambers USA: America’s Leading Lawyers for Business*
- *The Legal 500 United States*
- *New York Super Lawyers*

PROFESSIONAL HISTORY

- Partner, Davis Polk, 1999-2003; 2005-present
- Corporate Counsel, Reuters America Inc., 1994-1996
Joseph A. Hall (cont.)
PARTNER

ADMISSIONS
- State of New York

EDUCATION
- B.A., University of North Carolina at Chapel Hill, 1985
  - with highest honors
- J.D., Columbia Law School, 1988
  - James Kent Scholar
  - Harlan Fiske Stone Scholar
  - Charles Bathgate Beck Prize
  - Notes and Comments Editor, Columbia Law Review
Mr. Rowland is a partner in Davis Polk’s Corporate Department, practicing in the Investment Management Group. He focuses on providing transactional, regulatory and compliance advice relating to investment advisers, mutual funds, closed-end funds, business development companies, private equity funds and hedge funds. He devotes a large portion of his practice to the structuring, launch and operation of registered investment companies and hedge funds and to the sales, acquisitions and restructurings of asset management firms.

In addition, Mr. Rowland advises financial institutions, fund sponsors, corporations, employees’ securities companies, and other entities regarding exemptions under the Investment Company Act and Investment Advisers Act.

WORK HIGHLIGHTS

Recent transactional representations include:

**Registered Funds**
- The initial public offering of the Avenue Income Credit Strategies Fund, a registered closed-end fund sponsored by the Avenue Capital Group, a leading hedge fund adviser
- A registered transferable rights offering by the Avenue Income Credit Strategies Fund
- The structuring and launch of the Ramius Trading Strategies Managed Futures Fund, a series of a registered open-end fund that provides investors access to a portfolio of institutional-caliber managed futures managers in a daily liquidity format utilizing Ramius’ proprietary managed account infrastructure

**M&A Transactions**
- Morgan Stanley in the sale of its retail investment management business to Invesco
- Citigroup in the formation of the Morgan Stanley Smith Barney joint venture
Morgan Stanley in the spinout of its quantitative proprietary trading unit, PDT
Citigroup in the spinout of certain of its CAI alternatives businesses
Morgan Stanley in its investments in various hedge fund managers (including Avenue Capital Group and Lansdowne Partners)
Morgan Stanley in its global strategic alliance with Mitsubishi UFJ Financial Group
Financial Partners Fund in a management buyout of Jefferson National
The Carlyle Group in its investment in wealth adviser and asset manager Avalon Advisors LLC

RECOGNITION
Mr. Rowland is recognized as "a top-notch lawyer," according to Chambers USA.
He is "particularly well regarded" in mutual/registered funds, according to Legal 500 U.S.

OF NOTE
WEBINAR
The Latest SEC Proposed Derivatives Rules and How They Can Impact Your Business: presented with MSCI

PROFESSIONAL HISTORY
Partner, 2010-present
Associate, 2003-2010
Law Clerk, Hon. Diana E. Murphy, U.S. Court of Appeals, Eighth Circuit, 2002-2003

ADMISSIONS
State of New York

EDUCATION
B.A., Economics, Vanderbilt University, 1997
\textit{cum laude}
Gregory S. Rowland (cont.)
PARTNER

- J.D., Columbia Law School, 2002
- Harlan Fiske Stone Scholar
- Haft Prize
- James Kent Scholar
- Articles Editor, Columbia Law Review
As a partner in Davis Polk’s Tax Department, Ms. Conway focuses on investment management matters, including the formation and operation of private equity funds, hedge funds, mutual funds and other pooled investment vehicles. Her practice includes partnership matters and international tax matters.

**RECOGNITION**

Ms. Conway is recognized as a leading corporate tax lawyer in *Chambers USA*.

**PROFESSIONAL HISTORY**

- Partner, 2007-present
- Counsel, 1998-2007
- Associate, 1986-1998
- Paris office, 1990-1993

**ADMISSIONS**

- State of New York

**EDUCATION**

- A.B., Princeton University, 1977
  - *cum laude*
- J.D., University of Pennsylvania Law School, 1985
  - *magna cum laude*
  - Order of the Coif
  - Comment Editor, *Law Review*
Mr. Grinberg is an associate in Davis Polk’s Financial Institutions Group. His practice focuses on advising financial institutions and industry groups on a wide range of bank regulatory matters, including Dodd-Frank Act regulatory implementation, the preparation of living wills, enhanced prudential standards and intermediate holding company issues, Basel III capital and liquidity issues, and financial institution capital markets and M&A transactions.

In addition, Mr. Grinberg provides strategic, transactional and regulatory advice to a wide array of both established and emerging participants on cybersecurity and FinTech issues, including the regulatory treatment of virtual currencies and blockchain. He wrote the first widely read and cited academic paper on bitcoin, and is often cited in the media as an expert on digital currencies.

Before joining Davis Polk, Mr. Grinberg programmed trading server software for Bridgewater Associates, one of the world’s largest hedge funds.

PROFESSIONAL HISTORY

- Davis Polk since 2011

ADMISSIONS

- State of New York

EDUCATION

- B.S., Computer Science, Yale College, 2005
- M.Sc., Computer Science, University of Texas at Austin, 2007
- J.D., Yale Law School, 2011
  - Executive Editor, Yale Law & Policy Review

OF NOTE – BITCOIN

- Author of Bitcoin: Today Techies, Tomorrow the World?, Milken Institute Review