Cryptocurrency: A 21st Century Asset Class

January 18, 2018
Overview of Today’s Presentation

- Introduction
- Crypto 101
- Crypto Derivatives
- Developments in Product Development
Introduction:
Who We Are and What We Do
Our Investment Management practice attorneys represent participants in all aspects of the dynamic investment management industry.

- Represent entire spectrum of investment fund and adviser clients in regulatory and transactional matters
- Fund formation and product development practice for registered funds, private funds, private equity, and venture capital funds
- We have specialized expertise in transactions (derivatives, repo, sec lending) and M&A
- Today, over 25 lawyers and paraprofessionals with experience advising clients on all aspects of investment management
Representing blockchain companies since 2011, beginning with the first wave of digital currency companies and trade associations

First law firm to launch an industry practice group focused specifically on blockchain. Natural outgrowth of our long history representing fintech, Internet, mobile and technology companies

Today, over 40 lawyers with experience advising companies on all aspects of blockchain and digital currency law

The Perkins multidisciplinary blockchain practice is on the front lines, helping major players address complex issues
Blogs of Interest

- **Asset Management ADVocate**
  - https://www.assetmanagementadvocate.com/

- **Derivatives and Repo Report**
  - https://www.derivativesandreporeport.com/

- **The Fintech Report**
  - https://www.fintechlegalreport.com/

- **Virtual Currency Report**
  - https://www.virtualcurrencyreport.com/
Today’s Team

Andrew Cross
Washington DC
T: 202.654.6379

Dana Syracuse
New York City
T: 212.261.6892

Todd Zerega
Washington DC
T: 202.654.6378

Laurie Rosini
Seattle
T: 206.359.3052

Thomas Ahmadifar
Washington DC
T: 202.654.3334
Crypto 101
Cryptocurrencies: The Essentials

• What is a cryptocurrency and what is a “blockchain”?
• How many are there and where do they come from?
• How do I buy and sell them? Who has “custody” over them?
• What is “smart contract” technology?
Terminology & Definitions

- DLT/Blockchain vs. Cryptocurrency vs. Digital Token
- New Ledger Technology – track ownership of ANY asset
- New Distributed Operating System Technology – unstoppable applications

Distributed Ledger Technology (“DLT”):
Computer software that is distributed, runs on peer-to-peer networks, and offers a transparent, verifiable, permanent transaction management system maintained through a consensus mechanism rather than by a trusted third-party intermediary, and that guarantees execution.
A **DISTRIBUTED LEDGER** has no central authority and every node is responsible for maintaining the ledger.
Blockchain Basics: It Began with Bitcoin

• Blockchain is a **PROTOCOL** that establishes the manner in which a ledger operates
• Bitcoin is one of many possible **APPLICATIONS** that runs on a blockchain protocol
• Enter Laurie Rosini's You Tube Video
  • [https://www.youtube.com/watch?v=6AbqrkOShkQ](https://www.youtube.com/watch?v=6AbqrkOShkQ)
Blockchain is a New Platform Technology Like the Internet

What can you do with a blockchain?

Deloitte.

www.deloitte.co.uk/blockchain

Types of Digital Currencies
How do you get Bitcoin? Other currencies?

- Purchase on an exchange
- Accept it for products or services
- Mine it
How do you store Bitcoin?
Smart Contract Technology ("SCT"), Not Just "A" Smart Contract

• Computer protocol (essentially, an algorithm)
  • Able to self-execute, self-enforce, self-verify and self-constrain the performance of its instructions

• Programmed to be event-driven
  • With state
  • Runs on a replicated, shared ledger
  • Can take custody over assets on that ledger.
Crypto Derivatives
Crypto Derivatives: The Essentials

• What types of derivatives are available through regulated exchanges?
• Are these contracts widely traded?
• What is a decentralized derivatives exchange?
TeraExchange Non-Deliverable Forward

- **Cash settlement**
  - Based on USD equivalent price of Bitcoin on TeraBit Index

- **TeraBit Index**
  - 9 underlying exchanges at present, minimum of 6

- **Master Confirmation Agreement**
  - Both parties must be ECPs
  - Based on 1998 FX and Currency Option Definitions
  - 25% Independent Amount
  - $10,000 Minimum Transfer Amount

LedgerX

- Physically settled
  - Options (weekly and monthly)
  - Day-ahead swaps
- Fully-collateralized
  - Deposit maximum amount of Bitcoin that must be delivered or cash payment
- Cleared through LedgerX, LLC
  - Both parties must be ECPs

Source: https://ledgerx.com/compliance/
Nadex Bitcoin Spread

- Cash settlement
  - Based on USD equivalent price of Bitcoin on TeraBit Index

- Weekly Spread Contract
  - Floor limits losses & Ceiling limits gains
  - $2 per contract
  - 50 contract limit

- Exchange-Traded Contract
  - Cleared through NADEX, as well

Source: [https://www.nadex.com/markets/cryptocurrency/bitcoin](https://www.nadex.com/markets/cryptocurrency/bitcoin)
CME Bitcoin Futures Contract

- **Cash Settlement – Contract is for 5 Bitcoin**
  - Daily based on VWAP between 2:59 and 3:00 pm Central; Final based on CME CF Bitcoin Reference Rate at 4:00 pm London

- **CME CF Bitcoin Reference Rate**
  - Weighted average calculated every 5 minutes
  - Bitstamp, GDAX, itBit, Kraken

- **Risk Management**
  - Initial margin of at least 43%
  - Price limits result in trading halts

CBOE Bitcoin Futures Contract

- Cash Settlement – Contract is for 1 Bitcoin
  - Based on Gemini Exchange Auction Price
- Risk Management
  - Initial margin of at least 44%
  - Trading halts

Cantor Exchange Bitcoin Swap Contract

- Binary option
  - Maximum tenor is 90 days; $.01 tick size
  - Margin of 100% at-risk
- Cash-settled with payout determined by comparison of strike w/ CX Reference Price (RP)
  - RP determined in last 10 minutes of Last Trading Day; sources not disclosed
- Position accountability $10k net short or long

CBOE Bitcoin Futures – Some Numbers

- Based upon January 9th TFF Reports
- Open interest is 4,624 Contracts
  - Increase of 559 contracts from previous week
- 42 Traders
  - Increase of 3 traders from previous week
  - No mutual funds; only hedge funds

## CBOE Bitcoin Futures – Number of Contracts

<table>
<thead>
<tr>
<th>Type of Trader</th>
<th>Long</th>
<th>Short</th>
<th>Spreading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dealer</td>
<td>39</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>Intermediary</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asset Manager/Institutional</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Leveraged Funds</td>
<td>521</td>
<td>654</td>
<td>253</td>
</tr>
<tr>
<td>Other Reportables</td>
<td>1204</td>
<td>3017</td>
<td>41</td>
</tr>
<tr>
<td>Non Reportables</td>
<td>2551</td>
<td>644</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Decentralized Derivatives Exchange

- Smart contract based
- No intermediary, such as an exchange
- “Relayer technology” allows for order books to run “automatically”
- Peer-to-peer trading of crypto derivatives
  - Both parties would need to be ECPs, if US law applies

Source: https://dydx.exchange/
Developments in Product Development
Product Development: The Essentials

- What are the primary characteristics of exchange traded funds ("ETFs") that invest in Bitcoins and Bitcoin futures?
- What is the Bitcoin Investment Trust?
- Are there private funds that invest Bitcoin and crypto?
Bitcoin Futures ETFs

- **Bitcoin Futures (Long) ETFs**
  - REX Bitcoin Strategy ETF
  - VanEck Vectors Bitcoin Strategy ETF

- **Common Core Features**
  - Seek to provide investors with long exposure to the price movements of Bitcoin
  - Invest (up to 25% of assets) through a Cayman subsidiary that itself is investing in Bitcoin long futures
  - Invest directly in Bitcoin derivatives, other investment vehicles that provide exposure to Bitcoin (e.g., other ETFs or ETNs), or cash

All ETFs listed here are filed on Form N-1A.
Bitcoin Futures ETFs

- **Bitcoin Futures (Long) ETFs**
  - First Trust Bitcoin Strategy ETF
  - First Trust Bitcoin Plus Strategy ETF

- **Common Core Features**
  - Seek to provide investors with long exposure to the price movements of Bitcoin
  - Invest in Bitcoin futures, exchange-traded options on Bitcoin Futures, options and swaps linked to Bitcoin, and Bitcoin ETFs
  - Invest remainder in cash, U.S. government securities with maturities of 5 years or less, and/or money market instruments

All ETFs listed here are filed on Form N-1A.
Bitcoin Futures ETFs

- **Bitcoin Futures (Long) ETF**
- **ProShares Bitcoin ETF**

**Core Features**

- Seek to provide investors with long exposure to the price movements of Bitcoin
- Invest “substantially all” of its assets in Bitcoin long futures contracts

The ETF listed here is filed on Form S-1.
Bitcoin Futures ETFs

- **Bitcoin Futures (Short) ETF**
  - REX Short Bitcoin Strategy ETF

- **Core Features**
  - Seek to provide investors with short exposure to the price movements of Bitcoin
  - Invest (up to 25% of assets) through a Cayman subsidiary that itself is investing in Bitcoin short futures
  - Invest directly in Bitcoin derivatives, other investment vehicles that provide exposure to Bitcoin (e.g., other ETFs or ETFs), or cash

The ETF listed here is filed on Form N-1A.
Bitcoin Futures ETFs

- **Bitcoin Futures (Short) ETFs**
  - First Trust Inverse Bitcoin Strategy ETF
  - First Trust Inverse Bitcoin Plus Strategy ETF

- **Common Core Features**
  - Seek to provide investors with long exposure to the price movements of Bitcoin
  - Invest in Bitcoin futures, exchange-traded options on Bitcoin Futures, options and swaps linked to Bitcoin, and Bitcoin ETFs
  - Invest remainder in cash, U.S. government securities with maturities of 5 years or less, and/or money market instruments

All ETFs listed here are filed on Form N-1A.
Bitcoin Futures ETFs

- **Bitcoin Futures (Short) ETF**
  - ProShares Short Bitcoin ETF

- **Core Features**
  - Seek to provide investors with short exposure to the price movements of Bitcoin
  - Invest “substantially all” of its assets in Bitcoin short futures contracts
  - Invest using leverage

The ETF listed here is filed on Form S-1.
Bitcoin ETFs

- Bitcoin ETF
  - Winklevoss Bitcoin Trust (COIN)
- Core Features
  - Invest directly and only in Bitcoin
  - Rejected by the SEC on March 10, 2017
  - The markets for Bitcoin are unregulated
  - BATZ Exchange would not be able to enter into surveillance-sharing agreements with Bitcoin markets

The ETF listed here is filed on Form S-1.
Bitcoin Over-the-Counter Funds

- **Bitcoin Over-the-Counter (OTC) Fund**
  - Bitcoin Investment Trust (GBTC)

- **Core Features**
  - Holds Bitcoin directly
  - Similar to an ETF, issues creation baskets in exchange for deposits of Bitcoin and distributes Bitcoin in connection with redemption baskets
  - Calculates a NAV daily based on the Bitcoin market price

- **OTC Marketplace**
  - GBTC trades on OTCQX
  - On OTCQX, investors may buy and sell securities through an institutional, online or retail broker-dealer

The OTC had filed a Form S-1 with the SEC (01/20/2017) but withdrew its filing on (10/25/2017). It originally had filed under Form D (Rule 506(c)). It is not regulated as an investment company under the Investment Company Act of 1940.
Crypto Hedge Funds

- Structurally, same as other private funds
- Asset class is still developing
  - At present, “long only” funds more prevalent since difficult to short
- Next generation strategies
  - Arbitrage strategies, quant trading, use of artificial intelligence
  - “Macro crypto”