

The background of the slide features a complex financial chart. It includes a candlestick chart with orange and red bars, a line graph with a fluctuating orange line, and a world map composed of blue dots. A vertical line is drawn across the chart, and a numerical value '+11,00.00' is displayed in orange text. The overall color scheme is dominated by orange, red, and blue tones.

K&L GATES

2018 INVESTMENT MANAGEMENT CONFERENCE
Chicago, November 13, 2018

Cryptocurrencies and Related Investment Products

Clifford C. Histed, Partner, Chicago
Nicole C. Mueller, Associate, Chicago
Peter J. Shea, Partner, New York

OVERVIEW OF PRESENTATION

- Overview of Crypto
- Current/Proposed Cryptocurrency Investment Products
 - Private Funds
 - Exchange-Traded Products – Barriers to Entry
- Government Enforcement-Litigation Issues
- Investment Adviser Regulatory & Trading Concerns
 - Cryptocurrency Exchanges – NYAG Position
 - Cryptocurrency Custody – SEC’s OCIE Interest



Overview of Crypto

BLOCKCHAIN BASICS

- Digital assets are issued on a blockchain
- Traded either bilaterally or on crypto exchanges
- Blockchain facilitates pseudonymous and sometimes anonymous holding
- But digital assets can be traced to wallets by hackers and law enforcement

CRYPTO: BITCOIN, ETHER & MORE . . .

- Bitcoin is a single purpose blockchain; it's purpose is limited to creation and trading of Bitcoins.
- Ethereum is a distributed ledger - Ether.
- Ethereum - create “smart contracts” on a distributed ledger. These smart contracts enable 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 digital tokens that are based on smart contracts.
- These digital tokens are typically what are offered in ICOs.
- Proliferation of cryptocurrencies beyond Bitcoin & Ether.



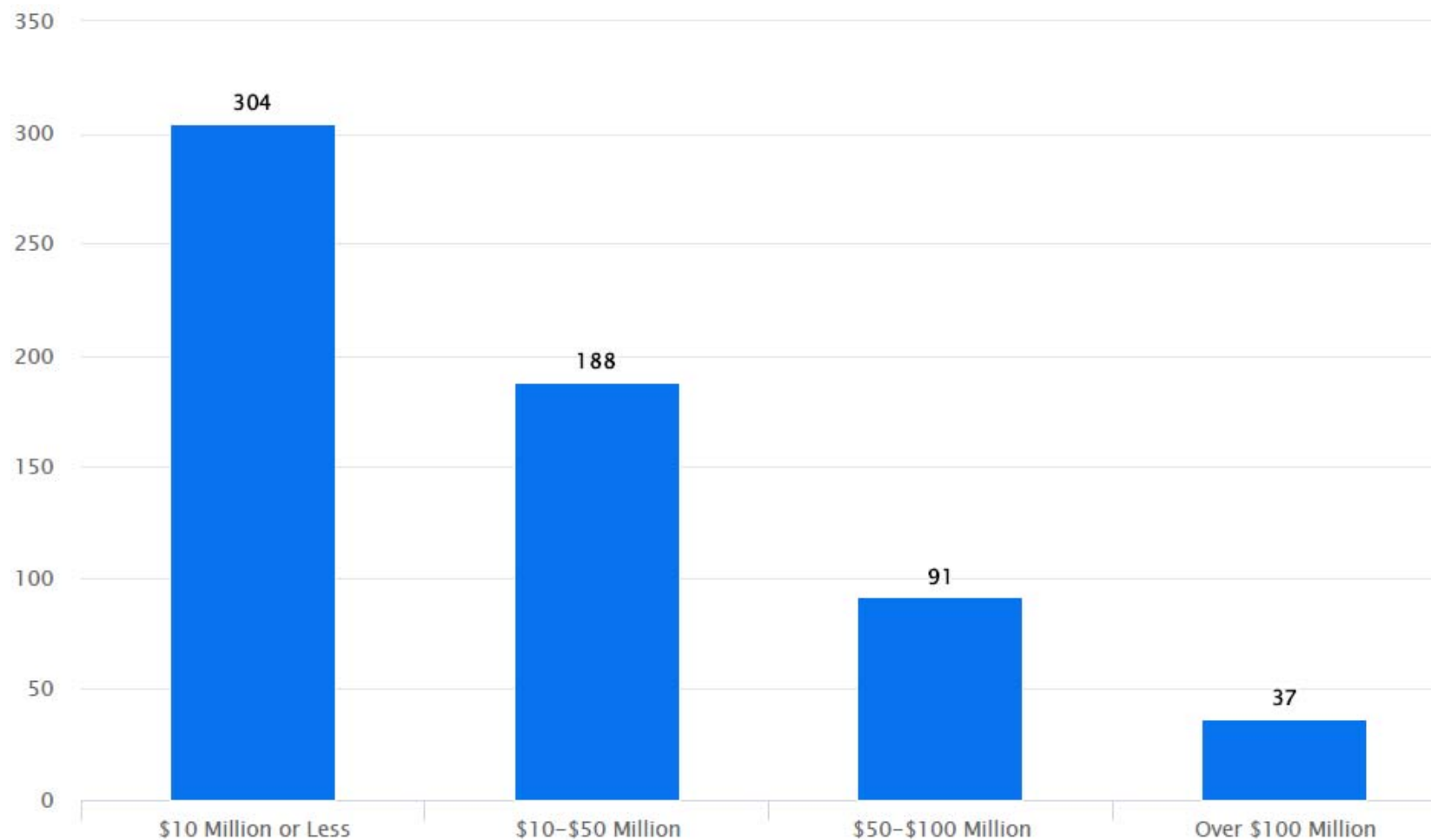
The image features a dark blue background with a futuristic, digital aesthetic. On the left, there is a grid of glowing blue dots forming a map-like shape. On the right, there is a bar chart with orange bars of varying heights. The central text is white and reads "Cryptocurrency Investment Products".

Cryptocurrency Investment Products

EXISTING VEHICLES

- Private funds
 - Hedge funds
 - Commodity pools with exposures to cryptocurrency futures
 - Closed-end funds
- Privately-offered grantor trusts:
 - Grayscale's Bitcoin Investment Trust ("GBTC").
 - Sold pursuant to Rule 506(c) of Regulation D. Quoted on over-the-counter dealer quotation market called "OTCQX".
 - Attempted to register public offering of shares on NYSE Arca but withdrew registration statement on 10/25/2017.
 - GBTC has spot exposure to a commodity; not subject to regulation under the Investment Company Act of 1940.

CRYPTO FUND AUM



Source: Crypto Fund Research, "Cryptocurrency Investment Fund Industry Graphs and Charts," available at <https://cryptofundresearch.com/cryptocurrency-funds-overview-infographic/> (accessed October 15, 2018).

HOW DO YOU TRADE PHYSICAL CRYPTO?

Spot or physical exchanges such as:

- Bitstamp
- Coinbase/GDAX
- itBit
- Kraken
- Gemini

HOW DO YOU TRADE PHYSICAL CRYPTO?

Issues and concerns with physical crypto trading:

- Hacking/security breaches/DDoS attacks
 - Mt. Gox
 - Bitfinex
 - Bitstamp
 - Coinbase/GDAX
 - ItBit
 - Kraken
- Manipulation/spoofing – plenty of press about “SPOOFY” on Bitfinex
- Slow execution and confirmation
- Random / frequent government interventions

IS CRYPTO A “COMMODITY” UNDER THE COMMODITY EXCHANGE ACT?

The term “commodity” means wheat, cotton, rice, corn, oats, barley, rye, flaxseed, grain sorghums, mill feeds, butter, eggs, Irish potatoes, wool, wool tops, fats and oils ..., cottonseed meal, cottonseed, peanuts, soybeans, soybean meal, livestock, livestock products, and frozen concentrated orange juice, and all other goods and articles, except onions ... and motion picture box office receipts ... and all services, rights, and interests ... in which contracts for future delivery are presently or in the future dealt in.

7 U.S.C. Sec. 1(a)(9)



IS CRYPTO A “COMMODITY” UNDER THE COMMODITY EXCHANGE ACT?

The term “commodity” means wheat, cotton, rice, corn, oats, barley, rye, flaxseed, grain sorghums, mill feeds, butter, eggs, Irish potatoes, wool, wool tops, fats and oils ..., cottonseed meal, cottonseed, peanuts, soybeans, soybean meal, livestock, livestock products, and frozen concentrated orange juice, and all other goods and articles, except onions ... and motion picture box office receipts ... and all services, rights, and interests ... in which contracts for future delivery are presently or in the future dealt in.

7 U.S.C. Sec. 1(a)(9)



IS CRYPTO A “COMMODITY” UNDER THE COMMODITY EXCHANGE ACT?

The term “commodity” means wheat, cotton, rice, corn, oats, barley, rye, flaxseed, grain sorghums, mill feeds, butter, eggs, Irish potatoes, wool, wool tops, fats and oils ..., cottonseed meal, cottonseed, peanuts, soybeans, soybean meal, livestock, livestock products, and frozen concentrated orange juice, and all other goods and articles, except onions ... and motion picture box office receipts ... **and all services, rights, and interests ... in which contracts for future delivery are presently or in the future dealt in.**

7 U.S.C. Sec. 1(a)(9)



BITCOIN DERIVATIVES

- LedgerX LLC registered with the CFTC as a SEF and DCO in July 2017 for Bitcoin swaps
 - Physically-settled – traders post or receive actual bitcoins
 - Offers options and day-ahead swaps
 - Eligible contract participants only – no retail participation
- Cboe Futures Exchange (CFE) Bitcoin futures contract (XBT)
 - Cash-settled based on Gemini Exchange BTC auction price, not based on an average or index price
- CME Group Bitcoin futures contract
 - Cash-settled based on proprietary Bitcoin Reference Rate (BRR), which aggregates bitcoin trading activity across major bitcoin spot exchanges

BITCOIN DERIVATIVES - LedgerX

- LedgerX is critical of cash-settled futures contracts – see “The easy way and the right way” published at LedgerX.com on November 30, 2017
- Points out the frequent outages suffered by the spot exchanges upon which Cboe and CME base settlement prices
- Argues that if spot exchanges go down, and a hypothetical futures exchange had to look to other pricing sources, they would have to “rely on known-bad, unregulated, un-surveilled overseas data, or make it up. There is no other option.”



BITCOIN FUTURES CONTRACTS - Cboe

- Launched on Dec 10, 2017
- Contract is cash-settled based on the Gemini Exchange auction price for bitcoin in U.S. dollars (not based on an average or index price).
- Temporary Cboe website crash on Day One did not appear to seriously affect trading.
- Two trading halts on Day One due to price movement
- Predictions of new ability to short bitcoin resulting in a bubble burst – and what happened?
- Because of concerns about volatility, and concern over settlement mechanism, the regulators are watching this market very closely.



BITCOIN FUTURES CONTRACTS - CME

- September 26, 2017 - "I really feel that bitcoin is very nascent right now. I really don't see us going forward with a futures contract in the very near future."
- October 31, 2017 - "Given increasing client interest in the evolving cryptocurrency markets, we have decided to introduce a bitcoin futures contract."
- December 1, 2017 – CME issues news release with contract details



BITCOIN FUTURES CONTRACTS - CME

- Launched on December 18, 2017
- Contract is cash-settled based on a proprietary Bitcoin Reference Rate which aggregates the trade flow of these bitcoin spot exchanges:
 - Bitstamp
 - Coinbase/GDAX
 - itBit
 - Kraken
- Concerns that these exchange are unregulated, and some are not even available to U.S. traders
- Again, the regulators are watching closely



BITCOIN FUTURES CONTRACTS - BAKKT

- Bakkt LLC “is designed to enable consumers and institutions to seamlessly buy, sell, store and spend digital assets.”
- ICE Futures US is scheduled to launch its new Bakkt Bitcoin futures contract on December 12, 2018.
- Contract is physically-settled and calls for delivery of one bitcoin held at the Bakkt Digital Asset Warehouse.



UPCOMING CRYPTO DERIVATIVES

- In May 2018, CME Group and Crypto Facilities launched their Ether Reference Rate and Ether Real Time Index
- Look for a CME Ether futures contract in 2019



POTENTIAL CRYPTO ETP STRUCTURES

- Listing exchange for a prospective exchange traded product (“ETP”) must submit for the SEC’s approval a listing rule under Rule 19b-4 of the Securities Exchange Act of 1934 (the “Exchange Act”).
- Subject to public notice and public comment.
- SEC must make specific findings that the issuance of the listing rule would comport with public policies furthered by the Exchange Act.
- Delegation to SEC’s Trading & Markets Division (“T&M Division”).

POTENTIAL CRYPTO ETP STRUCTURES

- If an ETP trades securities, it is an investment company under the 1940 Act and categorized as an exchange-traded fund (“ETF”).
- All ETFs are ETPs, but not all ETPs are ETFs.
- ETFs are regulated by the SEC’s Investment Management Division (“IM Division”).

POTENTIAL CRYPTO ETP STRUCTURES

- ETPs proposed as commodity pools, as many cryptocurrency-focused ETPs might be, are also subject to regulation by the CFTC and the National Futures Association.
- Pool sponsors are regulated as commodity pool operators and may employ regulated commodity trading advisers.
- Commodity pool ETPs typically do not create/redeem shares in-kind because the futures contracts they hold cannot easily be broken into “odd” lots.

POTENTIAL CRYPTO ETP STRUCTURES

- Grantor Trust ETPs are the most common form of ETPs proposed to date.
- Formed without a governing board; sponsors operate them within the strictures of the governing trust agreements.
- Create and redeem their shares in-kind.

SEC REJECTIONS OF PROPOSED CRYPTO ETPS

- For over two years, SEC and T&M Division have published a significant record of concerns about cryptocurrency ETPs.
- Rationale for rejecting:
 - Exchange on which the ETP would trade cannot have surveillance-sharing agreements with significant markets that host trading in Bitcoin;
 - Underlying markets for Bitcoin are not regulated in a manner comparable to a national securities or futures exchange.
- Concerns about unreliable pricing; underlying markets are opaque in their operations and subject to manipulation.

IM DIVISION'S CONCERNS

- On January 18, 2018, Dalia Blass, the SEC Director of Investment Management, sent a letter to each of the Investment Company Institute and the Securities Industry and Financial Markets Association regarding regulated products and cryptocurrencies.
- How can funds holding substantial amounts of cryptocurrencies and related products satisfy the 1940 Act and its rules?

IM DIVISION'S CONCERNS

- Trading issues and illiquidity
- Custody, regulatory rules and internal controls
- Valuation - lack of established valuation protocols; reliability and fairness with extreme price movements
- Accounting, verification and audit
- Suitability of asset class for retail and other investors

The background of the slide is a complex digital visualization. It features a dark blue to black gradient. On the left, there's a grid of glowing blue dots forming a shape that resembles a map of the United States. To the right, there are several vertical orange bars of varying heights, suggesting a bar chart. Scattered throughout are various colored circles (red, orange, purple, white) and thin vertical lines, some of which appear to be data points or markers. The overall aesthetic is futuristic and data-driven.

Government Enforcement-Litigation Issues

RECENT SEC ENFORCEMENT ACTIONS

- DAO Report cautioned market participants that the offer and sale of digital assets by virtual organizations are subject to the requirements of the federal securities laws
- Since the release of the DAO Report in 2017, the SEC has been active
 - Wide-ranging issuance of requests for information
 - Limited number of filings

SEC ENFORCEMENTS (CONT'D)

- Bulk of SEC actions to date have focused on allegedly fraudulent ICOs
 - Provide some guidance on how the SEC, courts view cryptocurrencies within the traditional securities regulatory framework
- U.S. v. Zaslavskiy
 - Moved to dismiss on grounds that coin was not a security
 - Judge recently ruled that government had alleged sufficient facts for case to go to jury



SEC ENFORCEMENTS (CONT'D)

- SEC v. Centra Tech, Inc.
 - Matters pending with the DOJ, SEC, and civil litigation
- SEC v. Longfin Corp.
 - Public company that did not hold ICO but announced acquisition of a purported cryptocurrency business, cause stock price to rise dramatically



SEC ENFORCEMENTS (CONT'D)

- SEC isn't limiting its oversight to Ponzi schemes or more straight-forward types of fraud
 - Cryptocurrency exchanges
 - EtherDelta: SEC recently announced a settlement with operator of platform for secondary market trading of tokens on charges that it acted as an unregistered national securities exchange
 - Broker-Dealer regulation
 - TokenLot: SEC announced a settlement with the self-described "ICO Superstore" for charges that it acted as unregistered broker-dealer in connection with sales of more than 200 different digital tokens



SEC ENFORCEMENTS (CONT'D)

- Recent actions make clear that if digital tokens are considered to be securities during the initial sale, they may well remain securities during subsequent trades
- SEC shows no sign of slowing down its enforcement activity
 - But the number of actions brought to date lags far behind the number of ICOs that have occurred
 - Caution might be an indication that the agency is taking its time to fully understand cryptocurrency and the existing laws that apply to it



ICO CIVIL LITIGATION

- Swath of claims brought in the last year seeking damages allegedly arising from ICO participation
- Styled as class actions
- Bring every claim under the sun
 - Federal securities actions, consumer protection statutes, traditional fraud actions, conversion, unjust enrichment
 - While the technology is novel, the underlying legal claims are not





Risks Associated with Cryptocurrency Exchanges

REGULATORY VACUUM

- Cryptocurrency now in operation are not registered or regulated as securities or commodities exchanges.
- Nor have they implemented common standards for security, internal controls, market surveillance protocols, disclosures, or other investor and consumer protections.
- Accordingly, customers of virtual asset trading platforms face significant risks., including
 - Hacking of wallets held by exchanges
 - Frequent delays and outages on trading platforms that leave customers unable to withdraw funds and susceptible to significant losses given volatile prices.
 - Certain trading platforms to deceptive and predatory practices, market manipulation, and insider abuses.
- Trading platforms vary in how they have responded to these risks.

NYAG VIRTUAL MARKETS STUDY

- On September 19 2018 the New York State Attorney General issued the report of findings of its investigation into cryptocurrency markets integrity
- Key findings:
 - The various business lines and operational roles of trading platforms create potential conflicts of interest
 - Trading platforms have yet to implement serious efforts to impede abusive trading activity.
 - Protections for customer funds are often limited or illusory.
 - Based on this investigation, the OAG referred Binance, Gate.io, and Kraken to the Department of Financial Services for potential violation of New York's virtual currency regulations.



Risks and Regulatory Issues of Cryptocurrency Custody

CUSTODY RULE

- Rule 206(4)-2 of the Advisers Act – RIAs must maintain custody of client funds or securities with a “qualified custodian.”
 - Qualified custodians include certain banks, savings associations, broker-dealers, futures commission merchants and foreign financial institutions that customarily hold financial assets for advisory clients segregated from proprietary assets.

DIFFICULTIES IN APPLYING THE CUSTODY RULE

- Are crypto assets “funds or securities” per Rule 206(4)-2?
- How do auditors verify ownership?
- Minimal regulatory guidance.
- How does one actually custody crypto?
 - Importance of wallet private key
 - Hot wallets – third party providers that often are vertically integrated with the services of a cryptocurrency exchange.
 - Cold storage – firewalled computer, USB drives, external hard drives, printed paper stored in vaults?
- Cybersecurity
- Zero-knowledge protocols

DIFFICULTIES IN APPLYING THE CUSTODY RULE

- Cold storage convenient for closed-end funds but less so for hedge funds with active trading strategies.
- Further safeguards:
 - Multi-signature
 - Subdivision of private key addresses into multiple, separate files
- Risk of loss might not always be due to bad actors but negligence or acts of god.
- Many ERAs decide to custody crypto assets through variety of means, including third-party hot wallets and self-custody.

OCIE INTEREST

- How are advisors utilizing cryptocurrencies as an investable asset class?
- What industry conventions are developing?
- How strong at these practices in protecting customers?
- Disclosures & Reports.
- Violative conduct?

K&L GATES