Blockchain & Money

Class 8

October 1, 2018
Class 8 Overview

• Readings and Study Questions

• Crypto Finance

• Public Policy Framework

• Guarding Against Illicit Activities

• Ensuring Financial Stability

• Protecting the Investing Public

• Public Policy Development

• Conclusions
Class 8 (10/2): Study Questions

• How do key public policy frameworks – guarding against illicit activities, ensuring financial stability, and protecting investors – relate to blockchain technology and crypto finance?

• Under tax, bank secrecy, securities and commodities laws, what is the relevance if crypto tokens are deemed property? Currencies? Something of value? An investment contract? A commodity? What is the essence of the U.S. Supreme Court ‘Howey Test’?

• How might the ‘Duck Test’ guide thinking of blockchain technology and crypto finance?
Class 8 (10/2): Readings

• ‘Cryptocurrencies: Oversight of New Assets in the Digital Age’ Gensler

• ‘The Future of Money’ Carney

• ‘Nobel-Winning Economists: Authorities will bring down ‘hammer’ on bitcoin’ CNBC
Crypto Finance - $220 Billion (10/2/18)

Image by Coin Dance. Used with permission.
Incumbents Eying Crypto Finance

• Crypto’s market cap, trading volume, volatility and spreads are drawing attention

• So has Coinbase’s 20 million accounts, about as many as Fidelity Investments, twice Charles Schwab and nearly as many as Vanguard

• Startups more willing to beg for forgiveness while incumbents often need ask for permission

• Incumbents interested to serve customer interest; gain a share of profits; & protect their franchises

  • Exchanges – CME; Eurex; Intercontinental Exchange; Nasdaq

  • Asset Managers – Fidelity

  • Investment Banks – Goldman Sachs
Public Policy Framework

• Guarding Against Illicit Activity

• Financial Stability

• Protecting the Investing Public
"Authorities need to decide whether to isolate, regulate or integrate crypto-assets and their associated activities."

Mark Carney, Governor of the Bank of England
March 2, 2018
Global Approach to Crypto Finance
Still Early Stage, but Confidence is Built upon coming within Public Policy Norms

• Guarding Against Illicit Activities
  • Broad Consensus on Policy
  • Inconsistent on Implementation

• Financial Stability
  • General Consensus to Monitor
  • Different Perspectives, though, on Level of Risk

• Protecting the Investing Public
  • Wide Range of Views on ICOs & Exchanges
  • Japan, U.S., & Others Moving to Regulate Exchanges
  • U.S. & Canada seeking to bring ICOs within Securities Laws
Crypto Public Policy Challenges - Guarding Against Illicit Activity

- Tax Compliance and Reporting
  - Definition – Currency or Property?
  - Tax Treatment – Mining, Exchanges, & Forks?
  - Reporting – Individual, Brokers, 1099-Bs & FBAR

- Bank Secrecy Act
  - Money Transmission Laws (AML, CTF) – Users vs. Administrators or Exchangers
Crypto Public Policy Challenges - Guarding Against Illicit Activity

• Challenges
  • Pseudonymous Addresses
  • Privacy Coins & Mixers or Tumblers
  • Compliance and Reporting
• Crypto to Crypto Transactions
• Decentralized Exchanges
• Dark Markets
• State Actors
Blockchain Analysis – US Agency Contracts

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<th>Agency</th>
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Crypto Public Policy Challenges - Financial Stability

- Financial Stability Board - Initial Assessment
- Crypto Finance Still Modest in Relation to Global Capital Markets
- Capital Control Countries – Concerns on Maintaining Stability
- On the Horizon for many Countries though ....
  - Crypto Leverage
  - Blockchain Market Infrastructure
  - Central Bank Digital Currencies & Stable Value Tokens
Central Bank Concerns on CBDC

• Potential of pro cyclical runs to CBDC

• Changes to commercial banks’ deposits and funding models

• Effects on credit allocation and overall economy

• Monetary policy implementation & transmission

• Resilience of open payment infrastructures

• Guarding against illicit activity

• Central Bank Digital Currency, though, likely will be seen in adoption
Crypto Public Policy Challenges - Protecting the Investing Public

• Crypto Markets Readily subject to Fraud, Scams, and Manipulation
• Custodial Arrangements - Exchange and Wallets
• Definitions – Securities, Commodities or Derivatives?
• Tracking Beneficial Ownership of Crypto Assets
• Remediation of Non compliant ICOs & Exchanges
• Personal Data Privacy
Investor Protection

• Investor Protection goes beyond Consumer Protection:
  • Investors get Full & Fair Disclosure from Insurers
  • Fraud & Deceptive Sales Practices Prohibited
  • Secondary Markets Promoted w/ Price Transparency & Anti-Manipulation
  • Advisors’ Conflicts of Interest Disclosed and Minimized

• Investor Protection Bolsters Confidence in Capital Markets

• Economic Growth, Issuers & Investors all Benefit
U.S. Securities Law

• The Howey Test (1946):
  • Is it an investment of money or assets?
  • Is the investment in a common enterprise?
  • Is there a reasonable expectation of profits?
  • Is it reliant on the efforts of a promoter or others?
The Duck Test

“When I see a bird that walks like a duck and swims like a duck and quacks like a duck, I call that bird a duck.”

James Whitcomb Riley, poet
Historical ICO Fundraising Stats – through till August 2018
$28,178,922,590

EOS $4,213m
Telegram $1,700m

Other notable ICOs:
- Bankera $152m
- Sirin Labs $158m
- TaTaTu $575m

Countries and regions represented:
- Europe
- North America
- Asia
- Caribbean
- South America
- Oceania
- Middle East
- Africa
- Stateless/Unknown

Monthly Total ($):

51 AUG 18
Published ICOs

The following graph shows the number of ICOs published in the past five months.

- May, 2018: 326
- Jun, 2018: 305
- Jul, 2018: 289
- Aug, 2018: 339
- Sep, 2018: 279

Source: ICO Bench
Initial Coin Offerings – Crowdfunding for Investment & Consumption

• Proceeds used to build networks
• Tokens usually issued prior to being functional
• Development, while open source, is largely centralized
• Promoters allocate themselves ‘premined’ tokens
• Tokens are fungible & transferable
• Scarcity is fostered with preset ‘Monetary policy’
• Purchasers anticipate profits through appreciation
Initial Coin Offerings – Investment Schemes Warranting Investor Protection

• False Distinction between ‘Investment’ & ‘Utility’ Tokens

• Most ICOs, Currently Issued Outside of Investor Protection Laws

• Significant ICO Fraud and Scams – Est. of 25% or as high as 81%

• Over 70% have Declined in Value

• Investor Protection Frameworks go beyond Consumer Protection Laws

• Economic Growth & Issuers benefit from Investor Confidence
Crypto Exchanges

• Critical gateway to implement public policy & instill confidence.

• Responsible for vast majority of crypto secondary market.

• Greater than 30 million direct members.

• Lack brokered access or meaningful market integrity rules.

• Custodial wallets are honey pots for hacks.

• Decentralized exchanges present new opportunities & policy risks.
Crypto Public Policy Challenges -
General Considerations

• Adapting Existing Laws & Regulations, where appropriate

• Staying Abreast of Technological Developments

• International Regulatory Arbitrage
Crypto Trading Moving to Light Regulatory Locations

Cryptocurrency trading volume by legal location of exchange (USDmn)

Source: CoinMarketCap.com, company websites, Morgan Stanley Research. For this chart Binance is in Malta and OKEx in Belize. Volume from one day in April but the relative exchange rankings are still comparable if several days are averaged.
Public Policy Development

Messaging
Politics
Analysis

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Policy
Messaging


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Politics - Coalition Building

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Class 9 (10/4): Study Questions

• What is permissioned or private distributed ledger technology? How does it differ from permissionless or open blockchain applications?

• What are the key blockchain inspired features of Corda and Hyperledger Fabric? What is Digital Asset Holdings?

• What are the business tradeoffs of utilizing a permissioned vs. a permissionless application? What are the tradeoffs for consumers?
Class 9 (10/4): Readings

• ‘Enterprises building Blockchain Confront Early Tech Limitations’ CoinDesk

• ‘Technical difference between Ethereum, Hyperledger fabric and R3 Corda’ Nandi

• ‘What is Corda?’ Newton

• ‘A Blockchain Platform for the Enterprise, Introduction’ Hyperledger Fabric

• ‘What is Digital Asset? / Distributed Ledgers for Financial Institutions’ Coin Central
Conclusions

- Blockchain Technology has Potential to be a Catalyst for Change
- Addressing challenges could lower Costs, Risks and Economic Rents
- Broad Adoption Requires coming within Public Policy Framework
- This is Consistent with Technological Innovations in the Past
- We still Must Guard Against Illicit Activities & Ensure for Financial Stability
- Public Confidence Can Only be Built on Investor Protection
- Consumer Protection Frameworks will not be Enough