

# 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)

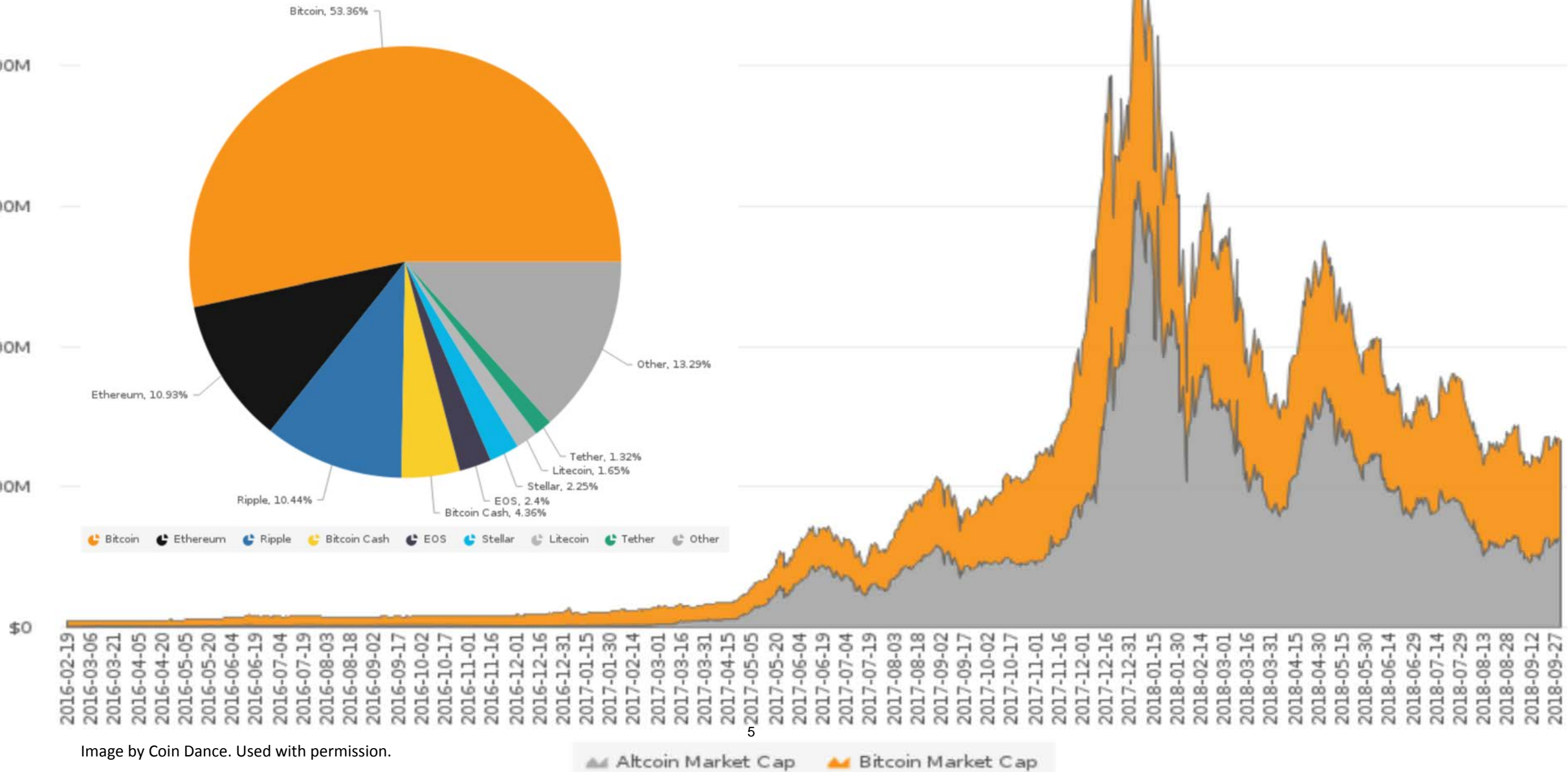


Image by Coin Dance. Used with permission.

# 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

# Public Policy – View from the Top

“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

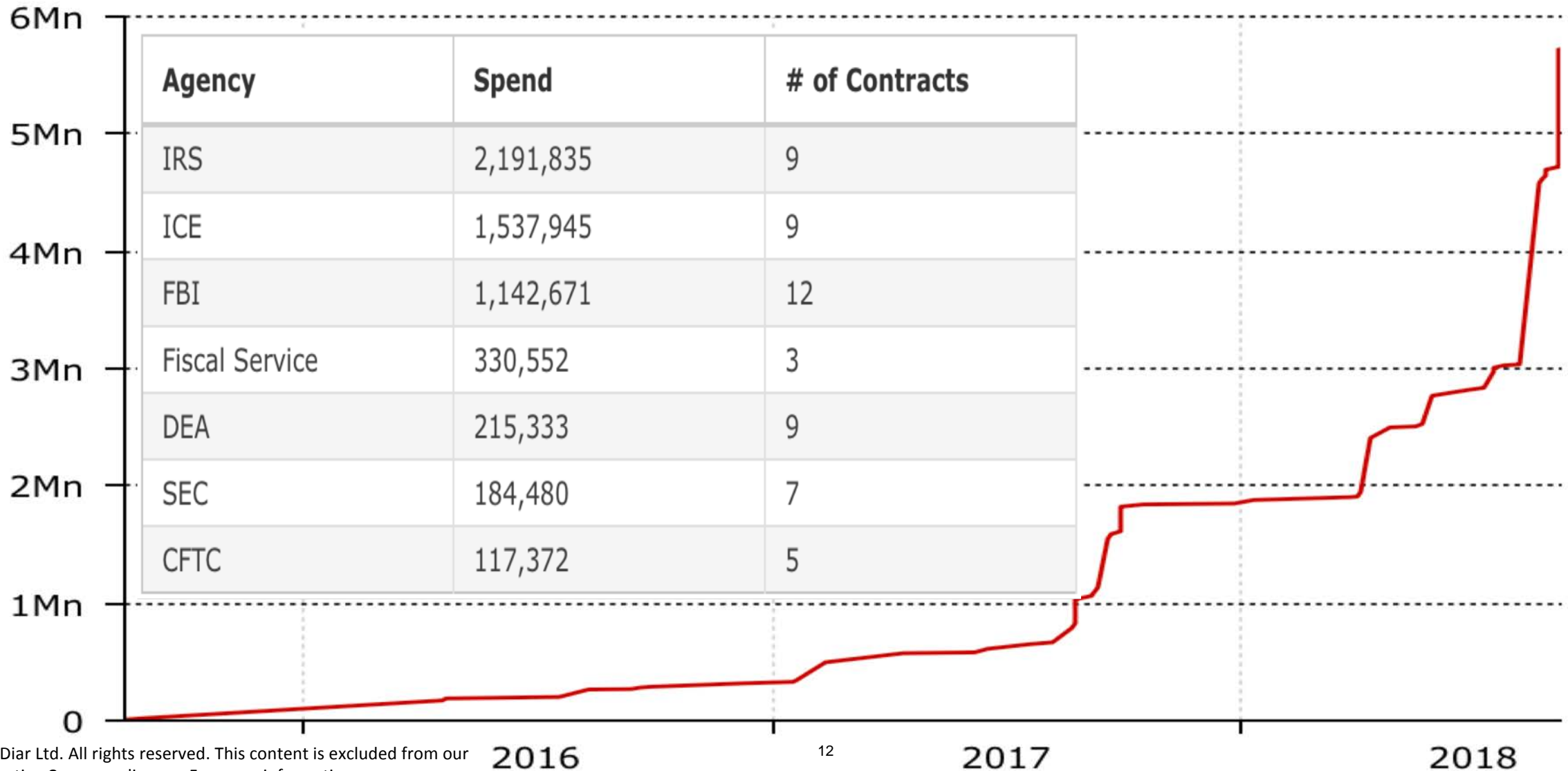
# Crypto Public Policy Challenges - Guarding Against Illicit Activity

- 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



# 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?



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# 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

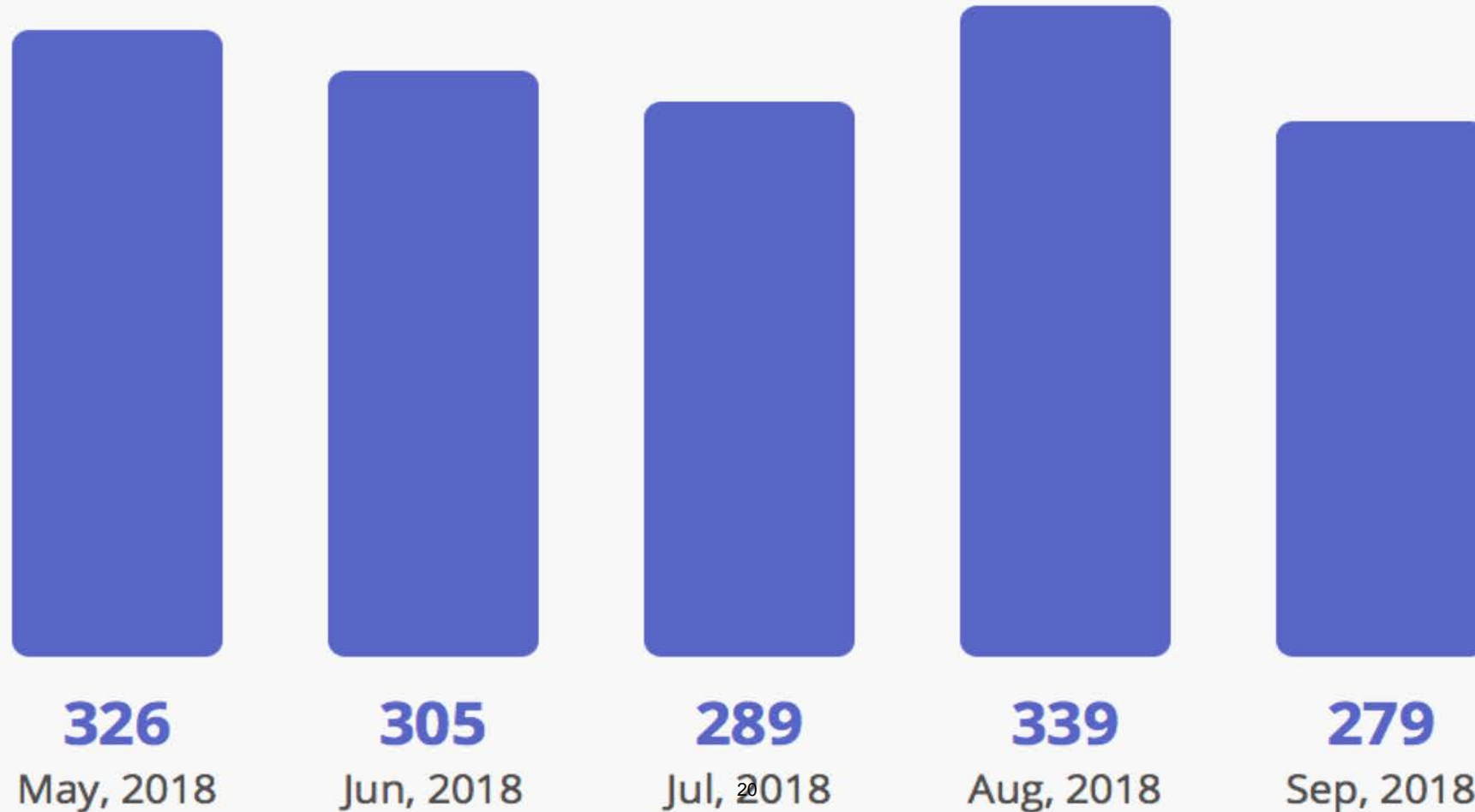






# Published ICOs

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



# 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



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Source: CoinMarketCap.com, company websites, Morgan Stanley Research, <sup>25</sup> 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

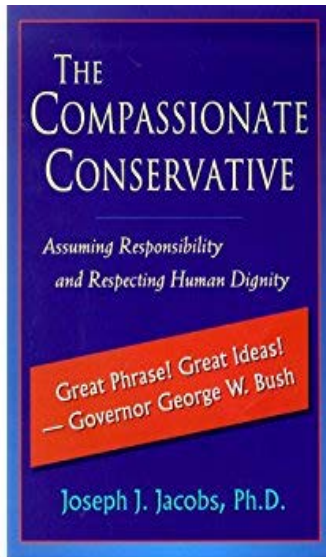
Analysis



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**Policy**

# Messaging



Top left: Source unknown. Top right: Obama for America Bottom left: Ics Press Bottom right: Source unknown<sup>27</sup>

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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

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