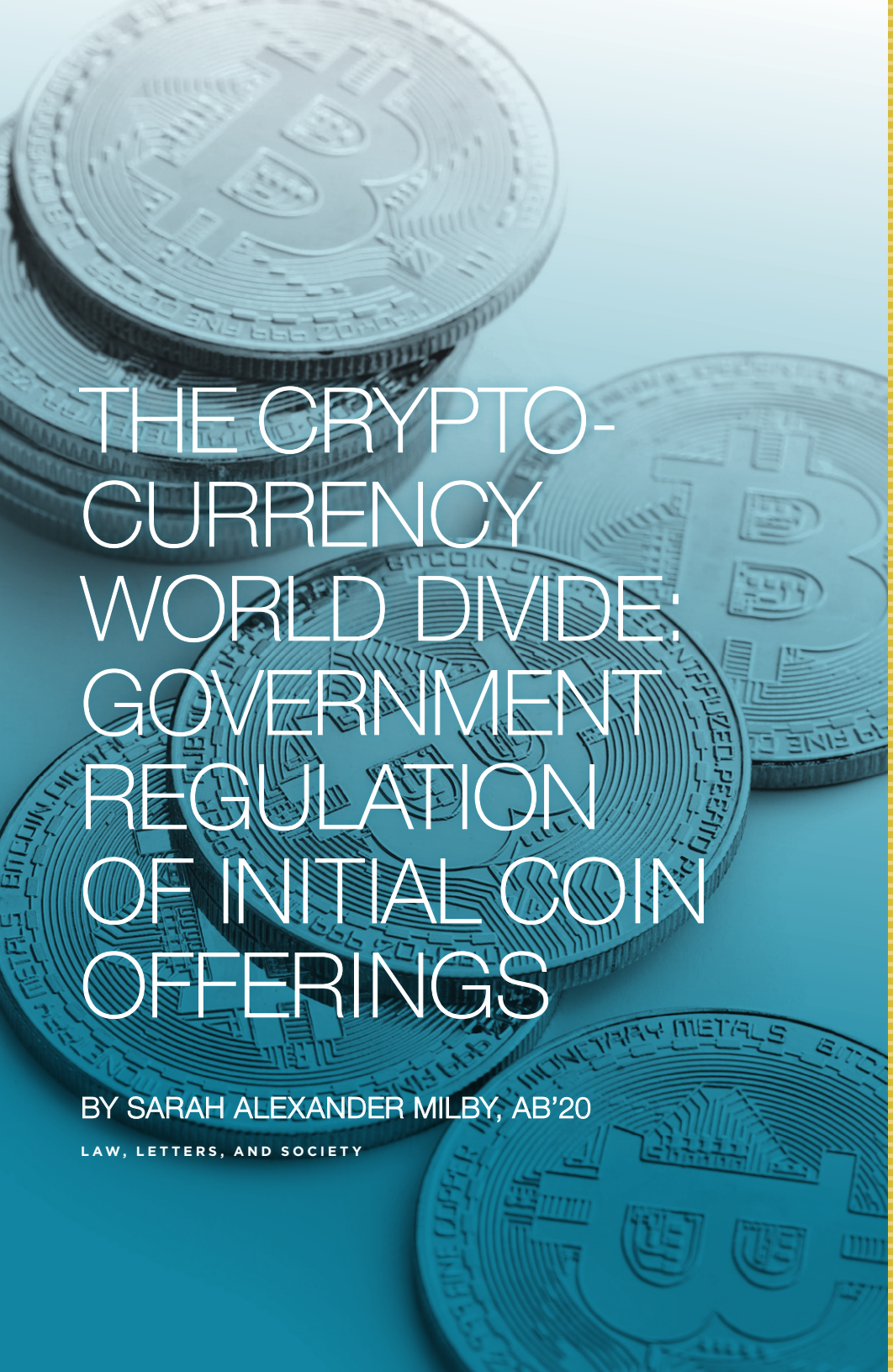

THE CRYPTO-CURRENCY WORLD DIVIDE: GOVERNMENT REGULATION OF INITIAL COIN OFFERINGS

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LAW, LETTERS, AND SOCIETY

INTRODUCTION

Kristin Smith, the executive director of the Blockchain Association, a trade association that represents cryptocurrency companies, shared an open letter on Twitter on September 15, 2020.[1] She wrote: "The public policies that we need for crypto to thrive *cannot be achieved* if our industry is unwilling to unite and work with the government."[2] The first comment on the tweet said that "crypto doesn't need your association or DC voices attempting to be 'reason,'"[3] and the second response said that "you don't seem to understand what crypto is all about."[4] While the Blockchain Association is calling for industry cooperation with regulators to improve cryptocurrency markets, there is another part of a broader crypto community that opposes centralization of power and argues that the point of cryptocurrency is to avoid government policies. The differing opinions in

1. Kristin Smith (@BlockchainAssn), "How Crypto Can Win Over Washington, DC," Twitter, Sept. 15, 2020, 12:05 p.m., twitter.com/BlockchainAssn/status/1305915555757592579.

2. A copy of the letter is also available at Kristin Smith, "How Crypto Can Win Over Washington, DC," CoinDesk, Sept. 15, 2020, www.coindesk.com/how-crypto-win-washington.

3. ZeroZebras (@jbrandonO), "Cypto doesn't need ... ," Twitter, Sept. 15, 2020, 12:09 p.m., twitter.com/jbrandon0/status/1305916655831220224.

4. Paolo's.Rugpull.Manager (@DrHOSP1), "Can't believe I'd say this as a nocoiner ... ," Twitter, Sept. 15, 2020, 12:14 p.m., twitter.com/DrHOSP1/status/1305917990613942280.

the tweets highlights a fundamental tension within the community: one world is enmeshed in negotiations with the government and the other actively avoids governmental regulatory power.

Hester Peirce, a commissioner at the US Securities and Exchange Commission (SEC), also released a public statement to the cryptocurrency community on September 15, 2020, about the SEC's settlement with the token[5] issuer Unikrn, Inc. The SEC had charged Unikrn with violating registration provisions of the Securities Act of 1933:

> Today's settlement with Unikrn, Inc., is the latest in a growing line of enforcement actions arising from initial coin offerings. While many SEC enforcement actions in this space include allegations of fraud, Unikrn falls within the narrower category of token issuers charged only with violating Section 5 of the Securities Act. In other words, Unikrn is alleged to have offered and sold its tokens in an unregistered offering and in a manner that did not qualify for an exemption; it is not alleged to have engaged in any fraud in doing so. Registration violations, even standing alone, are serious, and our enforcement actions can serve to deter such violations and protect harmed investors.[6]

5. "Tokens represent fungible and tradable assets or utilities that reside on their own blockchains. Crypto tokens are often used to fund-raise for crowd sales, but they can also be used as a substitute for other things. These tokens are usually created, distributed, sold, and circulated through the standard initial coin offering (ICO) process, which involves a crowdfunding exercise to fund project development." Jake Frankenfield, "Cypto Tokens," Investopedia, June 30, 2020, www.investopedia.com/terms/c/crypto-token.asp.

6. Hester M. Peirce, "Statement on SEC Settlement Charging Token Issuer with Violation of Registration Provisions of the Securities Act of 1933," U.S. Securities and Exchange Commission, Sept. 15, 2020, www.sec.gov/news/public-statement/peirce-statement-settlement-charging-token-issuer.

The settlement required Unikrn to disable its blockchain[7] permanently and to pay a penalty roughly the size of the company's assets. In short, the commission was forcing the company to cease operations.[8] This has become a common outcome for similar cases. Peirce did caution the SEC "to avoid enforcement actions and sanctions ... that enervate innovation and stifle the economic growth that innovation brings."[9]

In 2017, there was an initial coin offering (ICO) boom, with a proliferation of groups using them to raise money for the development of their businesses or technology projects by selling the soon-to-be-made cryptocurrency coins at discounted prices to investors. Investors receive the coins they bought once the blockchain launches. There are similarities between initial public offerings (IPOs) and ICOs, but rather than grant investors an ownership stake in a company or dividends, ICOs promise investors the coins themselves, which should increase in value if the network that the coin runs on is successful. Although the ICO boom ended in 2018, in the past two years, the SEC has taken enforcement actions against groups that conducted ICOs in 2017 and 2018. Many individuals bought coins on fraudulent projects that never intended to launch. However, the SEC did not target many of these small, clearly

7. "A blockchain is a distributed digital ledger that stores data. … While any conventional database can store this sort of information, blockchain is unique in that it's totally decentralized. Rather than being maintained in one location, by a centralized administrator—think of an Excel spreadsheet or a bank database—many identical copies of a blockchain database are held on multiple computers spread out across a network. These individual computers are referred to as nodes." David Rodeck and John Schmidt, "What Is a Blockchain?" *Forbes*, June 9, 2021.

8. Peirce, "Statement on SEC Settlement."

9. Ibid.

fraudulent projects; instead it focused on larger projects and claimed that the coins sold and the contracts governing their sale were securities.[10]

The tensions between anti-government crypto users, industry professionals working with regulators, and the regulators themselves are best understood by studying the SEC's recent attempts to regulate ICOs. This paper seeks to examine the US government's increasing interest in regulating groups conducting ICOs. I will first offer background on the crypto marketplace and the different kinds of existing coins. Second, I will examine a range of socioeconomic theories about free markets and regulatory states and explain why existing theories fail to account adequately for cryptocurrencies, their markets, and their regulation. Third, I will use a case study of the SEC's enforcement actions against ICOs to show why the threat of decentralized cryptocurrencies has caused the state to act proactively, taking on the market in defense of itself, even if the actions taken were said to be done for the safety of society.

During an ICO, a cryptocurrency mimics traditional finance and has a centralized group that manages the coin's launch; this is when the state has exerted regulatory authority. As a coin's network begins to function autonomously, it is no longer centrally managed, but is maintained by the users of the network (peer-to-peer) who operate a "trustless" system, that is, without the need for trusted third-party intermediators, such as banks, which require state regulation. (See the next section for a summary of how cryptocurrency networks operate in detail.) I will conclude by considering what I call the "sufficiently decentralized conundrum" to show how the trustless

10. A major part of my argument is that a single digital token may function as a commodity, like a currency, despite coming from a securities-like offering and that regulators need to differentiate a coin and its usage from its origins when creating new policies. See SEC v. Telegram 19-cv-9439 2020 WL 1430035, *1 (S.D.N.Y. 2019), law.justia.com/cases/federal/district-courts/new-york/nysdce/1:2019cv09439/524448/227, and SEC v. Kik Interactive 2019cv05244, *1 (S.D.N.Y. 2019), law.justia.com/cases/federal/district-courts/new-york/nysdce/1:2019cv05244/516941/88.

nature of cryptocurrency has driven use into two key forums: one centralized and regulated and the other decentralized and unregulated.

Due to the uniqueness of cryptocurrency, current government policy frameworks are inadequate. That a coin may behave like cash or a security and be decentralized has created interesting economic and legal problems for regulators. As a result, the US government is in a conundrum. First, it did not regulate early projects like Bitcoin, which legitimized them and allowed them to expand and to stabilize into trustless market systems. Second, and only later, did it step in to regulate other cryptocurrencies, which may permanently box out these regulated projects from the same decentralized future and prevent them from competing with older coins. The government's belated regulation efforts turn on finding instances where cryptocurrencies mirror the traditional financial system (i.e., when a cryptocurrency acts like a security) and use existing rules and regulations of finance to regulate emerging crypto projects.

The novelty of cryptocurrencies requires novel regulatory policies, but the SEC still relies on the Securities Act of 1933. This paper examines how the United States is reacting to the threat of cryptocurrencies' trustless systems and is trying to regulate projects before they can become a threat. These cases show that the United States needs new approaches to regulating global cryptocurrencies that do not rely on trust-based institutions and nation-states, which underpin traditional financial systems.

BACKGROUND

A useful definition of *cryptocurrency* is "a digital or virtual currency that is secured by cryptography, which makes it nearly impossible to counterfeit or double-spend. Many cryptocurrencies are decentralized networks based on blockchain technology—a distributed ledger enforced by a disparate network of computers. A defining feature of cryptocurrencies is that they are generally not issued by any central authority, rendering them theoretically immune to government interference or manipulation."[11] Each block in a blockchain records the latest transactions on the network in addition to a record of all the previous transactions and coin creations (see fig. 1). The earliest and the most well-known cryptocurrency is Bitcoin, which was first traded in early 2009.[12] In the past decade, developers have created many other coins, and the use of cryptocurrencies have expanded dramatically (see fig. 2).[13]

Cryptocurrencies have evolved beyond being units of exchange. Today, an individual may use a cryptocurrency for transactions, like money, or may hold onto the same tokens in the hopes of appreciation in value, like a security. While individuals tend not to care that coins can take different economic uses, regulators do, because a coin's particular use determines which agency regulates it. Moreover, cryptocurrencies present a novel regulatory problem for state regulatory agencies, because a single coin can operate in two markets: one that can be regulated and one that cannot.

11. Jake Frankenfield, "Cryptocurrency," Investopedia, updated Aug. 9, 2021, www.investopedia.com/terms/c/cryptocurrency.asp.

12. Satoshi Nakamoto [pseud.], "Bitcoin: A Peer-to-Peer Electronic Cash System," Oct. 31, 2008, www.bitcoin.com/bitcoin.pdf. The paper was first published on a message list run by cypherpunks. See Jamie Redman, "How Bitcoin's Peer-to-Peer Cash System Was Revealed 11 Years Ago," Bitcoin, Oct. 31, 2019, news.bitcoin.com/how-bitcoins-peer-to-peer-cash-system-was-revealed-11-years-ago.

13. Luke Conway, "The 10 Most Important Cryptocurrencies Other than Bitcoin," Investopedia, updated Sept. 16, 2021, www.investopedia.com/tech/most-important-cryptocurrencies-other-than-bitcoin.

There are two characteristics that determine whether a state agency can regulate a cryptocurrency: is it "permissionless" and is it "decentralized"? A permissionless network lacks a third-party intermediary that grants individuals access to a network and its services. Decentralization depends on the coin's protocol, its distribution, and the ways individuals use and store the coin. Centralized cryptocurrencies that are connected to an identifiable core development team, for example, can be regulated, whereas decentralized cryptocurrencies are out of regulatory reach.

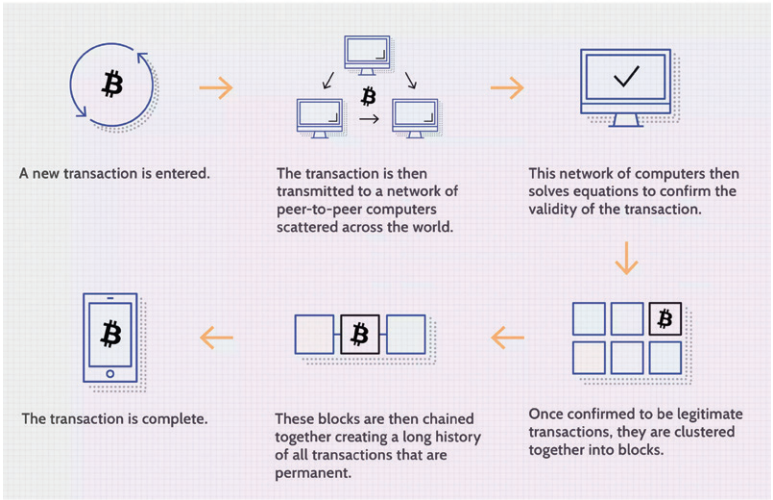

FIGURE 1. **The Bitcoin Transaction Process**

The diagram depicts a Bitcoin (BTC) transaction, which operates on a proof-of-work consensus mechanism. Some coins, such as Cardano (ADA), operate on proof-of-stake consensus mechanism and others, such as Filecoin, use proof-of-space time. Although BTC and ADA both run on blockchains, only in proof-of-work consensus mechanisms do all the miners solve for the hash (i.e., solve the equations) at the same time; in proof-of-stake, a person is randomly selected to solve the equation, and that person alone solves the problem for that group of transactions. See Luke Conway, "Blockchain Explained," Investopedia, May 31, 2021, www.investopedia.com/terms/b/blockchain.asp.

An example of an unregulated coin is bitcoin. Satoshi Nakamoto, an anonymous figure or group, launched Bitcoin in 2009.[14] It is permissionless and decentralized. Individuals maintain the Bitcoin ledger using a global peer-to-peer network of computers; they rely on an open-source protocol to validate transactions; the users who solve the complex mathematical problems of the protocol prove that transactions are authentic and receive new bitcoin as a reward, therefore "mining" new bitcoin;[15] these transactions can then be added as new blocks on the blockchain.[16] Bitcoin's level of decentralization is unique among cryptocurrencies: no person, company, or organization is responsible for maintaining the network; rather a global network of individuals maintains the blockchain by mining new blocks and creating new bitcoin until they reach the finite limit of 21 million coins set by Nakamoto.[17] The global distribution of Bitcoin miners means that there are relatively few countries without a computer storing a copy of the Bitcoin blockchain ledger (see fig. 3). Under these circumstances, a single country cannot regulate or shut down the network: only a global, coordinated response could stop individuals from maintaining and participating in the network. Bitcoin's geographic decentralization is reinforced by peer-to-peer transactions. Such permissionless transactions, which do no rely on a trusted third-party at any level, are known as

14. Rakesh Sharma, "Three People Who Were Supposedly Bitcoin Founder Satoshi Nakamoto," Investopedia, Jun 24, 2021, www.investopedia.com/tech/three-people-who-were-supposedly-bitcoin-founder-satoshi-nakamoto.

15. *Mining* describes the validation process, and miners are rewarded with brand new bitcoin for first solving the math equation correctly. Mining occurs until all new bitcoin have been created, at which point there will be a new kind of inventive structure for solving the hash.

16. Jake Frankenfield, "Bitcoin Mining," Investopedia, May 31, 2021, www.investopedia.com/terms/b/bitcoin-mining.asp.

17. Adam Hayes, "What Happens to Bitcoin after All 21 Million Are Mined?" Investopedia, updated Feb. 28, 2021, www.investopedia.com/tech/what-happens-bitcoin-after-21-million-mined.

"trustless." This makes Bitcoin a free market that does not depend on payment processors, brokerage accounts, or bank accounts; any individual with Internet access may transact with another directly. These characteristics make Bitcoin difficult to regulate at the level of the nation-state, which typically regulates the domestic money supply in relation to other nations' currencies and which typically protects investors by regulating third-party financial institutions (rather than a peer-to-peer system in which investors protect themselves).

The pseudonymous aspect of the Bitcoin market creates a free market without state interference. All members of the Bitcoin network can view transactions and the wallet address for the transaction on the public blockchain. However, the individual behind the public key is private. An individual may make transactions using different public keys (e.g., bitcoin

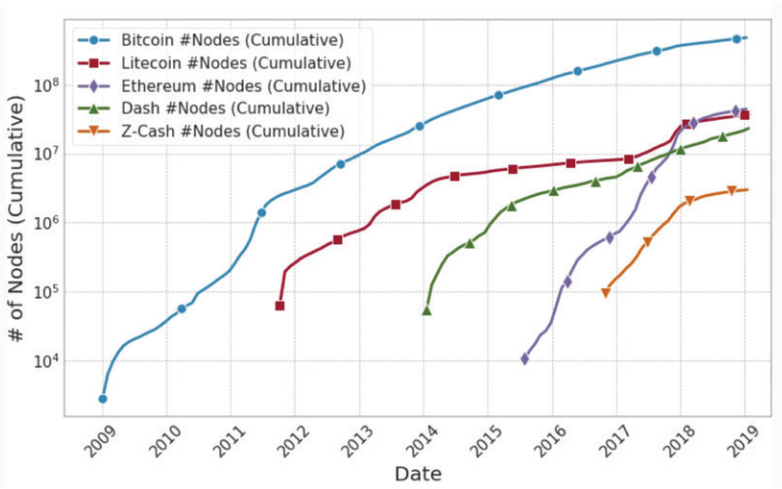

FIGURE 2. **Nodes (Individuals or Pools) Engaged in Cryptocurrency Transactions, 2009–19**

Amir Pasha Motmed and Behnam Bahrak, "Quantitative Analysis of Crypto-currencies Transaction Graph," *Applied Network Science* 4 (2019), doi.org/10.1007/s41109-019-0249-6.

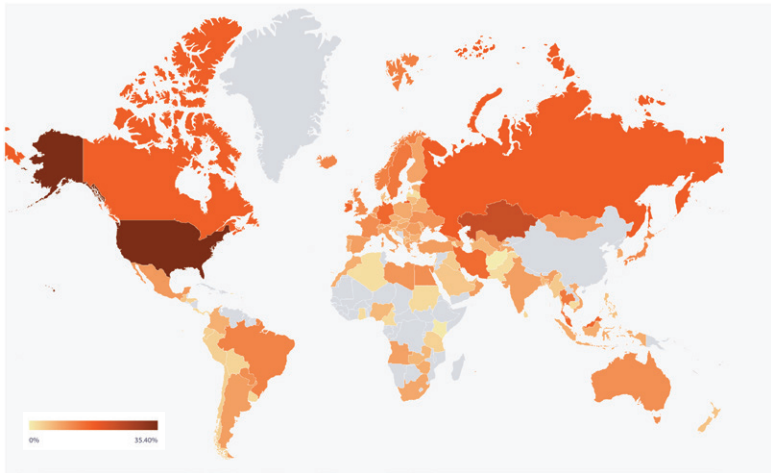

FIGURE 3. **Bitcoin Mining Map, Average Monthly Hashrate Percentage Share, July 2021**

Hashrate is a measure of the computation power needed to mine bitcoins. Cambridge Centre for Alternative Finance, "Bitcoin Mining Map," updated July 21, cbeci.org/mining_map.

wallets),[18] use unhosted wallets,[19] or use encrypted Web services like Tor and mixers to increase their privacy.[20] For these reasons, I consider Bitcoin to be decentralized, even though many Bitcoin transactions occur on regulated platforms like cryptocurrency exchanges or custodial wallets.

Bitcoin is an example of extreme decentralization, but there are varying degrees. Some cryptocurrencies are backed by companies or foundations,

18. Jake Frankenfield, "What Is a Bitcoin Wallet?" Investopedia, updated Aug. 8, 2021, www.investopedia.com/terms/b/bitcoin-wallet.asp.

19. Agata Ferreira, "Authorities Are Looking to Close the Gap on Unhosted Wallets," Cointelegraph, May 23, 2021, cointelegraph.com/news/authorities-are-looking-to-close-the-gap-on-unhosted-wallets.

20. "What Are Bitcoin Mixers?" Bitcoin Magazine, Aug. 17, 2020, bitcoinmagazine.com/guides/what-are-bitcoin-mixers.

others have leaders whose opinion and actions carry considerable weight, and some are entangled in regulated institutions. In general, the more decentralized a cryptocurrency is, the greater its challenge to traditional governmental regulations: the lower barriers of entry that cryptocurrencies offer quickens the possibility of a permissionless, trustless financial market developing.

LITERATURE REVIEW

In this review of the literature, I first provide a brief introduction to money. I next consider three classic socioeconomic theories (Adam Smith on free markets, Marx on capital, and Polyani on the interrelations among societies, politics, and markets), and how they fail to account for cryptocurrency or crypto markets. Finally, I touch on the libertarian, utopian, futurist theories of cryptocurrency's creators and of many of its users. This theoretical foundation shaped cryptocurrency as a self-regulating marketplace that generally resists government regulation.

Money serves three functions: it acts as a unit of account, a medium of exchange, and a store of value.[21] Money's value, whether commodity money like gold or fiat money like the US dollar, rests on a system of mutual understanding and trust: a person accepting a form of money agrees with the other party that it has a certain value and trusts that it will not lose its value.[22] The concept of money requires that a community gives it value; such value can be derived from the scarcity of an asset, a useful function that an asset provides, or because the state itself promises that an asset has value. Cryptocurrency is a multifunctional cash alternative that is not backed by government promise or underlying commodity, which raises important theoretical questions.

21. *The Economic Lowdown* (podcast series), "Functions of Money," Federal Reserve Bank of St. Louis, n.d., accessed Sept. 11, 2020, www.stlouisfed.org/education/economic-lowdown-podcast-series/episode-9-functions-of-money.

22. Ibid.

The free-market theorist Adam Smith supported laissez faire economics: markets could exist in a system of "natural liberty" and would regulate themselves without excessive state intervention.[23] Although Smith wrote in a time when manufacturing dominated the economy, many have extended his theory to the service economy, among others. While free-market theorists argue for a market regulated primarily by the self-interest of market actors, they do acknowledge that the state *could* intervene in the economy, given the intertwining of economics with politics.[24] What Smith could not have imagined is a truly free, global market. When cryptocurrency is used as an exchange of value like traditional money, it creates a free market where transactions can be completed anywhere in the world within minutes and beyond the reach of state intervention.

Marx states that money is used to give a common measure of the values of commodities. These values are realized forms of human labor, and money itself has no price.[25] Marx also wrote in the age of manufacturing, when the basis of the economy was physical commodities and their creation. Marx created an equation for direct circulation ($C—M—C$) and another for capital accumulation ($M—C—M'$), where C equals commodity, M equals money, and M' equals $M + \Delta M$.[26] In direct circulation, a consumer exchanges a commodity for money in order to obtain another commodity; people consume the use-value, or usefulness of the commodities. In this case, money acts as middleman in the consumption of commodities. In capital accumulation, the capitalists use money to buy a commodity in order to sell it at

23. Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, 4th ed., *The Goldsmiths'-Kress Library of Economic Literature*, no. 13148 (London: A. Strahan, and T. Cadell, 1786), 309.

24. Richard Swedberg, *Principles of Economic Sociology* (Princeton, NJ: Princeton University Press, 2003), 103, 137–28, assets.press.princeton.edu/chapters/s7525.pdf.

25. Karl Marx, *Capital: A Critique of Political Economy*. vol. 1, ed. Friedrich Engels, trans. Ben Fowkes (Middlesex: Penguin Books, 1976), 205, www.surplusvalue.org.au/Marxism/Capital%20-%20Vol.%201%20Penguin.pdf.

26. Ibid., 247–48, 251.

a higher price. The end goal of capitalism is the accumulation of money, money becomes an end in itself.[27] What happens, though, when there are no commodities and trading still happens? In cryptocurrency, Marx's theories of $C—M—C$ and $M—C—M'$ do not apply, because there is no underlying commodity or service. The result of the exchange of one cryptocurrency for another for profit is best described as $M—M'$.

Cryptocurrencies are different from traditional assets because there is no underlying commodity or service and, in some cases, even no originator or company to which the value of the coin can be correlated. This means that the derivation of cryptocurrencies' value and their fluctuations are hard to place. Often, the value comes from mass trading and popular speculation, and this is unique to cryptocurrency markets. It is true that the stock market and derivatives market are somewhat abstracted from the real commodity, but cryptocurrency markets are a complete abstraction: the only things that drive the market is active trading on it and popular speculation—people bet that a coin's value will rise; the more people demonstrate interest in a coin by investing in it secures the coin's use-value. In other words, the cryptocurrency has a use and value merely because people believe it does.[28]

Crypto markets create an interesting relation between the state, the people, and the market. Cryptocurrencies' public, trustless payment infrastructure threatens fiat money and money's attendant third-party institutions, like banks, credit rating agencies, card associations, and payment processors. The benefits of cryptocurrencies instead of traditional currencies include greater accessibility: anyone with an Internet connection can

27. Ibid., 249–50, 256.

28. See Chainalysis, *Geography of Cryptocurrency Report* (New York: Chainalysis, 2020), go.chainalysis.com/2020-geography-of-crypto-report.html. The report maps global mining locations, trade volumes, the fraction of illicit services, etc. For instance, it notes that North America passed Asia as the region with the most professional investors (90 percent of transactions) and that bitcoin transactions make up 72 percent of all transactions in North America.

make a Bitcoin wallet and begin to receive funds without any fees. Whereas, 65 percent of bank revenues from consumer deposits are from fees (for overdrafts and insufficient funds).[29] Due to the lower costs of transactions and permissionless access to the networks, crypto may provide payment services to individuals that have been excluded from traditional money services businesses.

Crypto's potential for greater financial inclusion should interest governments, which are motivated to protect society through market regulations, but this hasn't really been the case. Karl Polanyi's writings about the relationship between states, markets, society, and money are important here. He theorizes a "double movement" to describe the relationship between states and markets.[30] Efforts to check market pressures are made when the market abuses the vital commodities of labor, land, and money. Polanyi considers these to be fictitious commodities, because they are not produced to be for sale but are essential to market economies, performing various complex social functions.[31] Polanyi finds that fictitious commodities require continuous state action to function because a self-regulating market's potential for abuse of these commodities may cause the entire system to collapse.[32] Using Polanyi's terminology, because society is embedded within the economy, "the state is therefore portrayed as a vehicle through which the countermovement [against free-market pressures] channelled its

29. Consumer Financial Protection Bureau, *Consumer Voices on Overdraft Programs* (Washington, DC: Consumer Financial Protection Bureau, Nov. 2017), 5, files.consumerfinance.gov/f/documents/cfpb_consumer-voices-on-overdraft-programs_report_112017.pdf.

30. Karl Polanyi, *The Great Transformation: The Politics and Economic Origins of Our Times* (Boston: Beacon Press, 2001), 79, inctpped.ie.ufrj.br/spiderweb/pdf_4/Great_Transformation.pdf.

31. Ibid., 78.

32. Ibid., 79–80.

demands."[33] Cryptocurrency has shown, however, that is this isn't necessarily true, because crypto markets can function safely without states regulating them. However, cryptocurrency markets do require large populations of individuals like retail traders to buy and sell cryptocurrencies constantly in order to move the market. These so-called whales own such large quantities of coins that they can affect markets, often to their advantage.[34] Whales concern regulators, as does the possibility of these technologies leading to another run on the market as in the 1980s or if crypto markets are subject to fraud and financial manipulation as seen with penny stocks.

Governments have generally avoided strong regulations against crypto until recently because it was a small, emerging market with the potential to grow.[35] The state's hesitation to act early has allowed some cryptocurrencies such as bitcoin and ether to establish themselves and to create a stable base of traders. However, when the government did act, it created a conundrum: it did not regulate—and indeed legitimized—early currencies, but it did regulate later cryptocurrencies, which prevents them from becoming equally decentralized.

Bitcoin's origins in the cypherpunk movement and its foundations in libertarianism, utopianism, and futurism shaped cryptocurrency's anti-regulatory stance and pushed governments into such a conundrum. A group called cypherpunks emerged in the early 1990s and called for the

33. Geoff Goodwin, "Rethinking the Double Movement: Expanding the Frontiers of Polanyian Analysis in the Global South: Rethinking the Double Movement," *Development and Change* 49, no. 5 (Sept. 2018): 1271, doi.org/10.1111/dech.12419.

34. "Bitcoin Whales and Crypto Market Manipulation," Medium, Mar. 20, 2020, medium.com/@cryptomarketrisk/bitcoin-whales-and-crypto-market-manipulation-e2efd0dcafcd.

35. Donald F. Kettl, "How Do We Regulate Bitcoin and Other Cryptocurrencies?" *Governing*, July 25, 2018, www.governing.com/columns/washington-watch/gov-bitcoin-regulations-states.html.

creation of a private currency.[36] Primarily libertarian, they wanted to disempower states and empower individuals, particularly because they did not trust the state's ability to regulate markets after having experiencing bank failures and hyperinflation, among other problems. Members of the group were highly educated and many were computer scientists, mathematicians, or people otherwise knowledgeable and passionate about cryptography.[37] Cryptography was "a last defense against tyrannical governments" for the cypherpunks.[38] One cypherpunk, Russell Whitaker, equated cryptography to the Second Amendment right to bear arms; while recognizing that both cryptography and guns could be used for nefarious or illegal purposes, Whitaker emphasized that the freedom and security that each of these rights offered an individual from government overreach outweighed their associated risks.[39] Additionally, cryptography's anonymity was "the shield of the citizenry" in the eyes of the cypherpunks.[40] Anonymity severed the cypherpunks' digital identity from their physical one, which gave them a higher degree of safety to share ideas and information without the risk of censorship, harm, or surveillance from their perceived enemy, the State.[41]

36. Cypherpunks, who had created the earlier Bit Gold and Hashcash, are thought to have been behind Bitcoin; many cypherpunks were early adopters of Bitcoin, attracted to its privacy and peer-to-peer transactions. See Christopher Cannucciari, dir., *Banking on Bitcoin* (Gravitas Ventures, 2017), www.amazon.com/Banking-Bitcoin-Charlie-Shrem/dp/B01MTQZOCV.

37. "Cryptography is the science of securing information by transforming it into a form that only intended recipients can process and read." Annika Feign, "What is Cryptography?" Yahoo Finance, Aug. 2, 2021, www.yahoo.com/now/cryptography-180855247.html.

38. Craig Jarvis, "Cypherpunk Ideology: Objectives, Profiles, and Influences (1992–1998)," *Internet Histories*: *Digital Technology, Culture and Society* (June 2021): 6, doi.org/10.1080/24701475.2021.1935547.

39. Ibid.

40. Ibid., 8.

41. Ibid.

The ideal digital world imagined by the cypherpunks was a utopian futurist dream. Utopian beliefs arise from dissatisfaction with the current state of society, and from the public emails sent by the cypherpunks to one another, it is apparent that members of the group were deeply concerned with government interference in the market and involvement in daily life.[42] A group of cypherpunks asked President Clinton in 1993 to "merely get out of the way of the free market,"[43] and another individual on a cypherpunk email list shared his thoughts that governments have caused greater suffering than any other force: "Governments—primarily through the use of their militaries—have killed, by some counts, 170,000,000 million men, women, and children in this century alone."[44] The underpinning of the cypherpunk movement was encrypted and permissionless computer programs and software. They wanted to use this software because it had the promise to preserve anonymity, to circumvent government intervention and censorship, and to allow individuals to transact directly with one another online. It is the same kind of hope for a trustless, decentralized system that inspired Satoshi Nakamoto to create Bitcoin.

Nakamoto, an anonymous person or persons, proposed Bitcoin in a 2008 whitepaper.[45] Nakamoto writes that "a purely peer-to-peer version of electronic cash would allow online payments to be sent directly from one party to another without going through a financial institution."[46] The brief paper is both a mathematical treatise on how Bitcoin works (proof-of-work calculations) and a condensation of theories derived from libertarianism (anonymity), futurism (a solely electronic coinage), and utopianism (that a

42. Lyman Tower Sargent, "Ideology and Utopia," in *The Oxford Handbook of Political Ideologies*, vol. 1, ed. Michael Freeden and Marc Stears (Oxford: Oxford University Press, 2013), 3, doi.org/10.1093/oxfordhb/9780199585977.013.0016.

43. Jarvis, "Cypherpunk Ideology," 7.

44. Ibid., 14.

45. Nakamoto [pseud.], "Bitcoin," 1–9.

46. Ibid., 1.

mathematical proof maintained by a leaderless group could replace trust placed in financial institutions).[47]

The libertarian nature of the Bitcoin network's origin is perhaps best shown in the first Bitcoin block, the genesis block, which contained a message: "The Times 03/Jan/2009 Chancellor on brink of second bailout for banks," which refers to a front page story in the *London Times*.[48] Nakamoto seems to be criticizing the British government's decision to rescue private banks after the 2008 financial crisis. Its inclusion in the first Bitcoin block supports the idea that Bitcoin was created as an alternative cash that could avoid the crises created by government involvement in markets. Nakamoto had created an electronic form of cash that could take on the traditional order of markets.

The success of Bitcoin led to the creation of the Silk Road. Launched by Ross Ulbricht in 2011, it was a black market run on the anonymous Tor browser where people used Bitcoin to buy and sell illicit items such as drugs and guns. A libertarian, Ulbricht wanted to use technology to create a free market.[49] Some credit the Silk Road with bringing Bitcoin to popular attention.[50] In 2013, the United States government arrested, charged, and sentenced Ulbricht for narcotics trafficking, computer hacking, and money laundering.[51] The government shut down the Silk Road and auctioned off

47. Ibid., 1, 9.

48. Tim Copeland, "The Final Bitcoin Halving Block Had a Secret Message," Decrypt, May 11, 2020, decrypt.co/28508/the-final-bitcoin-halving-block-had-a-secret-message.

49. Cannucciari, *Banking on Bitcoin*.

50. Ibid.

51. Jose Pagliery, "FBI Shuts Down Online Drug Market Silk Road," *CNN*, Oct. 2, 2013, money.cnn.com/2013/10/02/technology/silk-road-shut-down/index.html; U.S. Attorney's Office, "Ross Ulbricht, A/K/A 'Dread Pirate Roberts,' Sentenced in Manhattan Federal Court to Life in Prison," United States Department of Justice, May 29, 2015, www.justice.gov/usao-sdny/pr/ross-ulbricht-aka-dread-pirate-roberts-sentenced-manhattan-federal-court-life-prison.

nearly eighty thousand bitcoin.[52] Ironically, the auction legitimized Bitcoin, with the US government acknowledging it as a currency with value and demand.

Since the Silk Road shutdown, the United States has continued to prosecute different groups doing illicit activities and using cryptocurrencies. In cases like the Silk Road, the state's action and its intention to protect the public are clear. However, the United States has also seemed to regulate some projects proactively, such as Telegram and Kik, because the networks, once launched, can become permissionless, decentralized networks that can evade regulatory authorities. It appears that the United States is trying to shut down projects before they reach a point of sufficient decentralization where they can no longer be regulated in the decentralized cryptocurrency system. In these instances, there is no societal pressure to limit markets as there is in Polanyi's double movement because the projects are often still in their infancy. Instead, the state uses existing legal tools to ensnare new projects from joining Bitcoin and others that have challenged it and its traditional financial systems. Here, the state is in direct conversation with the market itself, there is no societal group using the state as a vehicle for the countermovement.

METHODS

In order to sufficiently understand the cryptocurrency regulatory landscape, I collected data from interviews, ethnographic field notes, and content analysis. I conducted fifteen interviews over the course of three months between June and August of 2020 in Washington, DC. The interviewees had different perspectives and levels of exposure to cryptocurrency policy and the specific cases that I studied. They included industry experts, cryptocurrency companies' general counsels, cryptocurrency advocates, lobbyists, previous government regulators, and a member of the US Congress.

52. Everett Rosenfeld, "Feds Auction $13.5M Worth of Silk Road Bitcoins," *CNBC*, Mar. 5, 2015, www.cnbc.com/2015/03/05/feds-auction-135m-worth-of-silk-road-bitcoins.html.

I found interviewees by referrals from personal contacts, work associates, or those already interviewed. Interviews were conducted over video call. Each interview was recorded using the Voice Memos iPhone app. I transcribed the audio interviews using the program Transcribe and corrected the transcription by comparing it the original recordings, which I then erased. During the interviews, I also took notes and made additional observations once the interview concluded. I stored my notes and the transcription of each interview in a single document. I decided to keep all interviewees anonymous: this allowed for more open dialogue; also, some participants requested anonymity. I identify interviewees by generic roles without any identifier to personal information.

I also attended meetings with crypto-industry leaders, *SEC v. Kik Interactive* court hearings, and US congressional hearings on cryptocurrency issues and assisted on projects with crypto-industry advocates. I read press releases, speeches, and other documents from US and international regulatory bodies. Additionally, I analyzed court documents, amicus briefs, and interviews about *Kik* and *SEC v. Telegram*, in order to understand the SEC's arguments against ICOs as unregistered securities and the industry's response to the SEC. Finally, I followed the Twitter accounts of industry insiders and cryptocurrency enthusiasts, listened to podcasts, and read articles in cryptocurrency news sources.[53] These sources helped me to understand how a diverse group of individuals thought about initial coin offerings and cryptocurrency, generally, and how they reacted to current government actions, specifically.

53. Sources include Laura Shin's *Unchained* podcast and Nick De's CoinDesk articles; individuals on Twitter, such as Sam Bankman-Fried, Tim Draper, and Jesse Powell; and regulatory organizations on Twitter, such as the SEC.

THE CASE OF REGULATING ICOs AS SECURITIES

Developers can make an initial coin offering (ICO) to raise money for the development of their proposed network or service by selling tokens at discounted prices to individuals. Individuals receive a promised number of tokens once the blockchain launches and the coins are created. The developers code "smart contracts," also known as "simple agreements for future tokens" (SAFTs), into the blockchain for these individuals.

Crypto entrepreneurs have adopted ICOs widely as a means of fund-raising. MasterCoin held the first ICO in 2013.[54] Since September 2017, Ethereum, one of the most widely used crypto networks, changed its blockchain protocol so that developers can create new tokens and conduct ICOs on top of the existing Ethereum blockchain, which offers new possibilities of fund-raising.[55] The Ethereum protocol gives token developers a reliable and stable platform to host an ICO and launch their coins.

Recently, courts have defined initial coin offerings as securities under the Securities Act of 1933.[56] In *Telegram* (2019), Telegram argued that only the investment contracts were securities, but, in his opinion, Judge P. Kevin

54. Ruben Merre, "ICO 101: Initial Coin Offerings," Medium, May 22, 2019, medium.com/hackernoon/initial-coin-offerings-icos-what-is-an-ico-what-are-the-pros-and-con-s-c40813a8d419.

55. Ethereum's ERC-20 protocol is a set of rules that governs and standardizes the forms and uses of tokens and smart contracts on the Ethereum network. See Nathan Reiff, "What Crypto Users Need to Know: The ERC-20 Standard," Investopedia, updated Mar. 2, 2021, www.investopedia.com/tech/why-crypto-users-need-know-about-erc20-token-standard.

56. In response to the 1929 Wall Street crash, the Securities Act of 1933 centralized and regulated securities at the federal level under the administration of the newly created Securities and Exchange Commission. See Will Kenton, "Securities Act of 1933," Investopedia, updated Oct. 20, 2020, www.investopedia.com/terms/s/securitiesact1933.asp.

Castel ruled that the tokens sold were also part of the investment contract: "[T]he 'security' was neither the Gram Purchase Agreement [SAFT] nor the Gram [token] but the entire scheme that comprised the Gram Purchase Agreements and the accompanying understandings and undertakings made by Telegram, including the expectation and intention that the Initial Purchasers would distribute Grams into a secondary public market."[57] Citing *SEC v. Howey Co.* (1946), Castel applied the four-pronged "*Howey* test" to determine that tokens and the SAFT are an investment contract: (1) there must be an investment of money; (2) there is an expectation of profit from the investment; (3) the investment is in a common enterprise; and (4) the profits of the investment are from the efforts of the promoter or a third party.[58] As a result, the SEC now regulates ICO tokens as securities, using the same *Howey* analysis.

ICOs have essentially ceased in recent years, but the SEC is still investigating ICOs that took place in 2017 and 2018.[59] The SEC currently regulates each token and ICO individually, without broad policies or procedures in place.[60] Under these circumstances, companies that had cooperated with the SEC and had discussed their expectations of regulation are often surprised by an SEC legal action. Below is a brief outline of SEC procedures and the cases that I will discuss in the findings section.[61]

57. *Telegram*, No. 19-civ-9439, 2020 WL 1430035, at *1.

58. Securities and Exchange Commission v. Howey Co., 328 U.S. 293, at 299 (1946), casetext.com/case/sec-v-howey-co.

59. "Many economic analysts announced that the rise of cryptocurrencies and ICOs [in 2017–18] represented a bubble. … Its flaws easily brought scams and investor lawsuits, calling the concern of the regulators[,] from warnings and guidelines to investigations, reports, shuts down and outright bans." Jacqueline Escobar, "Initial Coin Offering," Medium, June 12, 2019, medium.com/hackernoon/initial-coin-offering-ico-death-regulation-b615a7cb6b97.

60. Chris Brummer, *Fintech Law in a Nutshell* (St. Paul, MN: West Academic Publishing, 2020).

61. For an in-depth history of the SEC's selective regulation of ICOs, see James J. Park and Howard H. Park, "Regulation by Selective Enforcement: The SEC and Initial Coin Offerings," in "The Rise of Fintech," ed. Andrew F. Tuch, special issue, *Washington University Journal of Law and Policy* 61 (2020): 99–132.

In July 2017, the SEC released an investigative report on the Decentralized Autonomous Organization (DAO). The report explains how securities laws could apply to the coins sold as tokens in ICOs and cautioned investors to avoid unregistered security offerings. In 2016, Slock.it, a German blockchain solution company, created the DAO as a for-profit entity that would hold assets by selling DAO Tokens to investors, whose funds would be used for new projects.[62] According to the SEC, the DAO met the four prongs of the *Howey* test: (1) "the DAO offered and sold approximately 1.15 billion DAO Tokens in exchange for a total of approximately 12 million Ether ('ETH'), virtual currency used on the Ethereum blockchain":[63] (2) there was a reasonable expectation of profits; (3) the tokens "granted the DAO Token holder certain voting and ownership rights";[64] and (4) the profit was derived from the managerial efforts of Slock.it: "Investors had little choice but to rely on their expertise."[65] The SEC's analysis found the DAO Tokens were securities and that the DAO initial coin offering was an unregistered securities offering.[66]

In another case, Telegram promised to give investors Grams once it had developed and launched the TON network, the blockchain marketplace for Grams: "In 2018, Telegram raised $1.7 billion through private placements of investment contracts pursuant to an exemption from registration under

62. Securities and Exchange Commission, *Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934: The DAO*, no. 81207 (Washington, DC: Security and Exchange Commission, July 5, 2017), 2–3, www.sec.gov/litigation/investreport/34-81207.pdf.

63. Ibid., 2–3.

64. Ibid., 5.

65. Ibid., 13.

66. Ibid., 10, 16.

Regulation D of the Securities Act of 1933."[67] On October 11, 2019, a few weeks before Telegram was set to launch the TON network and deliver Grams to investors, the SEC filed an emergency restraining order to prevent Telegram from releasing tokens. The SEC alleged that the ICO violated rule 506(c): Gram investors were underwriters, and Telegraph failed to register the entire scheme of the sale, creation, and distribution of the Grams as a security with the SEC. Judge Castel granted the SEC a preliminary injunction against Telegraph and ruled in favor of the SEC.[68] In 2020 Telegram reached a settlement with the SEC: it "agreed to return more than $1.2 billion to investors and to pay an $18.5 million civil penalty."[69]

In April 2019, the SEC released "a framework for analyzing whether a digital asset is an investment contract and whether offers and sales of a digital asset are securities transactions."[70] The framework cites the four-prong *Howey* test. The framework devotes a few sentences to the first two prongs, describing how an investment of money and a common enterprise typically exist for ICOs. The discussion of reliance on the efforts of others and the reasonable expectation of profit is filled with bullet points of different characteristics that *might* indicate that an ICO is a securities offering, stating that "no one of the following characteristics is necessarily determinative" and that as the number of characteristics increases, it is more likely "a purchaser has a reasonable expectation of profits (or other financial returns)

67. Nancy Wojtas et al., "SEC v. Telegram: Key Takeaways and Implications," Cooley, May 7, 2020. www.cooley.com/news/insight/2020/2020-05-07-sec-v-telegram-key-takeaways-implications.

68. Ibid.

69. Securities and Exchange Commission, "Press Release 2020-146: Telegram to Return $1.2 Billion to Investors and Pay $18.5 Million Penalty to Settle SEC Charges," June 26, 2020, www.sec.gov/news/press-release/2020-146.

70. Securities and Exchange Commission, *Framework for "Investment Contract" Analysis of Digital Assets* (Washington, DC: Securities and Exchange Commission, Apr. 2, 2019), www.sec.gov/corpfin/framework-investment-contract-analysis-digital-assets.

derived from the efforts of others."[71] Of the almost forty characteristics outlined, there is no determinative factor or set of characteristics that makes an ICO a security offer. The SEC concludes that "the inquiry, therefore, is an objective one, focuses on the transaction itself and the manner in which the digital asset was offered and sold."[72]

In September 2017, Kik Interactive raised over $100 million through an ICO for its Kin token,[73] and in June 2019, the SEC sued the Canadian company, claiming that the sale of Kin tokens was an unregistered securities offering.[74] As one crypto journalist wrote, after two years of communications between the commission and Kik, "the complaint was an almost novelistic parade of horribles, painting Kik as a cash-strapped company on its last legs, turning to an unregistered securities offering in the form of the Kin token sale as a Hail Mary pass to save the company from certain failure."[75] Kik's 131-page response to the complaint argues that if the SEC "had strong evidence," then it "would have simply outlined all of the relevant facts and let those facts speak for themselves"; instead the SEC's complaint "reflects a consistent effort to twist the facts."[76] Kik settled with the SEC in 2020; Kik agreed to pay a $5 million civil penalty, to notify the

71. Ibid.

72. Ibid. The SEC has not used the framework in any recent legal proceedings of ICOs as unregistered securities, which suggests that it is (as the first paragraph indicates) an industry guideline only.

73. Simon Chandler's "Does Kik Stand a Chance against the Goliath of the SEC in a US Court?" Cointelegraph, June 1, 2019, cointelegraph.com/news/does-kik-stand-a-chance-against-the-goliath-of-the-sec-in-a-us-court.

74. Stephen Palley, "SEC v. Kik: Kik Files Aggressive Answer to SEC Lawsuit," The Block, Aug. 7, 2019, www.theblockcrypto.com/post/35004/sec-v-kik-kik-files-aggressive-answer-to-sec-lawsuit.

75. Ibid.

76. "Answer to Complaint," SEC v Kik Interactive, No. 19-Cv-05244-AKH, at *1 (S.D.N.Y. 2019).

SEC of any planned sale or transfer of the Kin tokens for a period of three years, and to not participate in any unregistered securities sales.[77]

FINDINGS

My analysis reveals three findings. First, the SEC should regulate initial coin offerings when such enforcement fulfills its mission to "to protect investors; [to] maintain fair, orderly, and efficient markets; and [to] facilitate capital formation."[78] However, the broad consensus among interviewees was that the SEC has failed to regulate ICOs coherently and that the Securities Act of 1933 is ill-suited to evaluate cryptocurrencies. Second, the SEC does not view cryptocurrencies positively. Finally, industry leaders want the SEC to allow projects to develop and reach points where they no longer are considered securities to prevent hobbling an innovative marketplace.

Industry interviewees agreed with and supported the SEC when it takes action against groups that held fraudulent ICOs. However, many interviewees thought the SEC regulation of cryptocurrencies by enforcement, rather than by providing comprehensive and clear industry guidance, is the wrong approach.[79] One person said that the SEC has used "a big club" and is not rewarding good companies or acknowledging the promise of this technology. Another said that the SEC has failed its mission by not providing stability to an innovative and potentially expansive investment

77. Through a foundation, Kik raised money for legal costs. See Chandler, "Does Kik Stand a Chance."

78. "What We Do," U.S. Securities and Exchange Commission, Dec. 18, 2020, www.sec.gov/Article/whatwedo.html.

79. For a robust discussion on the SEC's regulation of ICOs using Regulation D registration requirements, see Avery Minor's "Cryptocurrency Regulations Wanted: Iterative, Flexible, and Pro-Competitive Preferred," *Boston College Law Review* 61, no. 3 (2020): 1149–81, lawdigitalcommons.bc.edu/bclr/vol61/iss3/7.

area. The general counsel of a cryptocurrency company summarized the general criticism of the SEC by the industry:

> I think the biggest challenge from a regulatory standpoint is that most regulations, at least most financial regulations, assume the presence of a central intermediary … to be there, and then they apply obligations on that particular entity. Crypto obviously turns that on its head by removing an intermediary like that and replacing it with smart contracts or other things that are kind of processed by this amorphous network of miners and other things that make it very difficult to place those obligations on any particular party or stack of people. And so the question is, should those obligations apply at all if they were designed to be applied to entities like banks or other financial institutions? Or are the risks that those regulations were designed to reduce just not present in an environment where those kind of trusted intermediaries don't exist.

This comment gets to the heart of why cryptocurrency is so difficult to regulate. The SEC's response to ICOs has been to regulate groups that launch the coins and the blockchain. The SEC has defined a form of money (here, a digitally native asset like cryptocurrency or a token) as a security, which mistakenly intertwines the cryptocurrency with its investment contract. Industry leaders argue that this definition of cryptocurrencies as securities and the intertwining of crypto with its initial sales contracts are stifling innovations in cryptocurrency.

One of the greatest shared concerns among industry professionals is the SEC's use of the 1933 securities laws and the 1946 securities test to evaluate cryptocurrencies. The multifunctionality of cryptocurrencies and its decentralization make the applications of the existing securities laws imperfect and cause uncertainty for market stakeholders. A member of Congress agreed with this assessment, saying that these nearly ninety-year-old laws are inadequate; that the regulators need to define when crypto is a security or when it is a currency; and that they need a new legal system to address crypto's uses and future.

At the 2018 Yahoo Finance All Markets Summit, William Hinman, then director of the SEC's Division of Corporate Finance, asked: "Can a digital asset that was originally offered in a securities offering ever be later sold in a manner that does not constitute an offering of a security?"[80] He concluded that "in cases where the digital asset represents a set of rights that gives the holder a financial interest in an enterprise the answer is a likely 'no'"; but the answer is "a qualified 'yes'" in "cases where there is no longer any central enterprise being invested in or where the digital asset is sold only to be used to purchase a good or service available through the network on which it was created."[81] Hinman laid out his understanding of sufficient decentralization:

> If the network on which the token or coin is to function is sufficiently decentralized—where purchasers would no longer reasonably expect a person or group to carry out essential managerial or entrepreneurial efforts—the assets may not represent an investment contract. Moreover, when the efforts of the third party are no longer a key factor for determining the enterprise's success, material information asymmetries recede. As a network becomes truly decentralized, the ability to identify an issuer or promoter to make the requisite disclosures becomes difficult, and less meaningful.[82]

This suggests that a coin, such as those proposed by Telegram and Kik, can evolve from its SEC-designated security classification when there are no central actors managing the success of the enterprise. What the threshold of sufficient decentralization is exactly or what it really means is not described. Some industry experts wonder, does it means there needs to be a critical mass of users? For example, does there need to be a certain number of token holders or nodes that are running the network and validating blocks?

Hinman declares that Bitcoin and Ethereum networks are sufficiently decentralized, so transactions in bitcoin and ether are not securities transactions. Hinman does not address the question of why Bitcoin transactions are not regulated by the SEC when some people hold them as investments. Nevertheless, the fact that the SEC considered Ethereum sufficiently decentralized is important because Ethereum started with a presale in an effort to get ether into the hands of users. According to the group launching Ethereum, the ether presale was essential: the token "is a necessary element—a fuel—for operating the distributed application software platform we are building."[83]

The SEC's ignoring Ethereum's 2014 fund-raising model and pursuit of later groups is frustrating to many in the cryptocurrency industry. Other large projects, like Kik and Telegram, used the Ethereum model: sell tokens to individuals so that project leaders could develop and launch a functioning network. Hinman's "sufficiently decentralized" standard has created a catch-22 for start-up cryptocurrency groups. The SEC regulates these groups as centralized entities because they are developing the blockchain networks, but these groups' networks need a period of centralized management before they reach a certain threshold of decentralization and no longer need to be regulated as a security. In other words, the SEC stops these projects before the groups can get coins into users' hands because a centralized group created the coins. A consequence of this is that early entrants (Bitcoin and Ethereum) are protected by the SEC's barriers of entry to new competitors.[84]

My second finding is that the SEC's general tone of antagonism towards cryptocurrency has deterred industry professionals from collaborating

80. William Hinman, "Digital Asset Transactions: When Howey Met Gary (Plastic)," U.S. Securities and Exchange Commission, June 14, 2018, www.sec.gov/news/speech/speech-hinman-061418.

81. Ibid.

82. Ibid.

83. Armand Tanzarian, "Ethereum Raises 3,700 BTC in First 12 Hours of Ether Presale," Cointelegraph, July 23, 2014, cointelegraph.com/news/ethereum-raises-3700-btc-in-first-12-hours-of-ether-presale.

84. Park and Park, "Regulation by Selective Enforcement," 99–132.

with SEC regulators. Three interviewees recalled SEC Chair Jay Clayton's testimony before a February 2018 Senate Banking Committee hearing on cryptocurrencies in which Clayton said, "I believe every ICO I've seen is a security" (see, also, Appendix).[85] They were frustrated and disappointed that Clayton's comments, which largely represented the views of the entire SEC, as lacking nuance or understanding of how cryptocurrencies operate. Further, Clayton had voiced repeated skepticism about ICOs and the opportunities they present investors in two statements and in nine of his thirty speeches as SEC chair (see Appendix).

When asked about the SEC's approach to regulating cryptocurrencies, one interviewee at a think tank said: "The SEC is making regulation by enforcement action and it's inevitably going to be on the safe side, because I think they're worried about the generalization of avoidance of securities laws, but it means that you're not getting necessarily fair assessment of individual cases." This observation complements those made by others interviewees regarding *Kik* and *Telegram*, who thought the SEC, in its effort to deter companies from avoiding securities laws, had unfairly assessed these companies. Overall, the industry professionals I interviewed are seeking clarity from the SEC. They want the commission to reward well-intentioned companies, to assess individual cases fairly, and to acknowledge the technology's promise.

My third and final finding is that industry leaders are hopeful that some in the SEC are advocating for cryptocurrency development. One popular solution comes from SEC Commissioner Hester Peirce, affectionately nicknamed "Crypto Mom."[86] Peirce outlines her view of the catch-22 caused by

85. Stan Higgins, "SEC Chief Clayton: 'Every ICO I've Seen Is a Security,'" CoinDesk, Feb. 6, 2018, www.coindesk.com/sec-chief-clayton-every-ico-ive-seen-security.

86. Reddit users apparently gave Peirce the nickname in 2018, see John Detrixhe, "Bitcoin Believers Are Flocking to a Sympathetic SEC Commissioner's Twitter Account," Quartz, July 28, 2018, qz.com/1342037/bitcoin-believers-are-flocking-to-a-sympathetic-sec-commissioners-twitter-account; Peirce acknowledged the "title" and suggested that her approach to motherhood was "free-range" in contrast to "a helicopter mom," which is perhaps a reference to the SEC's worried and regulatory approach to

defining tokens as securities: "My colleagues sometimes see the sale of a security when all I see is a sale of tokens to be used in a network."[87] Peirce questioned how token networks could reach sufficient distribution and decentralization if every token distribution were viewed as a securities offering. She framed the need for a "safe harbor proposal" in the context of actions previously taken by the SEC, particularly its extensive 2019 framework:

> This staff guidance identifies thirty-eight separate "characteristics" to consider when analyzing whether an offering of digital assets is likely a securities offering. Although I appreciated the attempt, the complexity of this guidance and resulting public confusion motivated me to suggest a safe harbor. The safe harbor would allow legitimate token offerings to move forward without having to answer the question of whether the token is a security for three years. During that time, the developers of a token could build the kind of functioning, decentralized network that would push the token clearly outside the securities law framework.[88]

The safe harbor proposal would provide "the regulatory flexibility that allows innovation to flourish. Accordingly, the safe harbor protects token purchasers by requiring disclosures tailored to their needs, preserving the application of the antifraud provisions of the securities laws, and giving them an ability to participate in networks of interest to them. The safe harbor also provides network entrepreneurs sufficient time to build their

ICOs, see Hester M. Peirce, "Motherhood and Humble Pie: Remarks before the Cato Institute's FinTech Unbound Conference," U.S. Securities and Exchange Commission, Sept 12, 2018, www.sec.gov/news/speech/speech-peirce-091218.

87. Hester M. Peirce, "Not Braking and Breaking," U.S. Securities and Exchange Commission, July 21, 2020, www.sec.gov/news/speech/peirce-not-braking-and-breaking-2020-07-21.

88. Ibid.

networks before having to measure themselves against a decentralization or functionality yardstick."[89]

Peirce addresses how some of the SEC's efforts to regulate ICOs contradict its mandate "to protect investors … and facilitate capital formation."[90] She pointed to *Telegram*, in which the court granted the SEC's request for "such a sweeping injunctive relief on a non-US company," where the majority of the investors and funds came from outside the United States.[91] This led Peirce to question who the enforcement action was protecting, as "the settlement included $1.2 billion in disgorgement, which will go to repay the initial purchasers, the people the district court determined were an integral part of the securities law violation."[92] She questioned whether the SEC did any public good by returning the money from the ICO back to the investors whose resale of Gram tokens was part of what constituted the investment contract and breach of securities laws. Moreover, she warned of the growing scope of US regulatory powers: "We would do well to recall that our way is not the only way" and that the United States "should be cautious about asking for remedies that effectively impose our rules beyond our borders."[93] Peirce's observations are an important challenge to the SEC's recent enforcement actions and put the regulatory authority and actions of US regulators into perspective. Even though some interviewees think that the amount of attention paid to the SEC for cryptocurrency regulation is exaggerated compared to its actual impact on markets, it is important to consider how regulation sets precedent for cryptocurrencies and for interactions between government and markets.

89. Hester M. Peirce, "Running on Empty: A Proposal to Fill the Gap Between Regulation and Decentralization," U.S. Securities and Exchange Commission, Feb. 6, 2020, www.sec.gov/news/speech/peirce-remarks-blockress-2020-02-06.

90. "What We Do," U.S. Securities and Exchange Commission.

91. Peirce, "Not Braking and Breaking."

92. Ibid.

93. Ibid.

DISCUSSION AND CONCLUSIONS

Current US security laws from the 1930s and 1940s do not provide an adequate framework for the role of the state in regulating cryptocurrencies, due to their uniqueness. The SEC's inconsistent attempts to regulate ICOs reveal the need for a new conceptual framework to understand cryptocurrencies and to develop policy solutions. Although bitcoin is a commodity, whose markets are overseen by the US Commodity Futures Trading Commission, other cryptocurrencies exist between a security and commodity. As this paper demonstrates, the SEC's decision to regulate ICOs as securities by the SEC's use of the *Howey* test impedes capital innovation and individual investors.

The fact that one coin can have significantly different uses and is decentralized has created interesting economic and legal questions about how states should regulate cryptocurrencies generally. I have found a sufficiently decentralized conundrum that affects the state, emerging crypto projects, and existing cryptocurrency markets. For states, regulating the creators of new networks prevents more currencies from becoming trustless decentralized systems and gives legitimacy to existing coins. For crypto developers, the sufficiently decentralized conundrum is a catch-22: regulators define them as central managers who can be regulated, which prevents them from creating decentralized networks that cannot be regulated. This conundrum divides the market into one that is centralized and regulated and one that is not.

Governments created the sufficiently decentralized conundrum by failing to recognize, define, or regulate early forms of cryptocurrency. In the United States, the SEC's lack of enforcement allowed Ethereum, a project that had a token presale, to expand and become a trustless decentralized system. Its later regulation of the emerging market, like Kik and Telegram, legitimized these earlier coins and created market stability for them, while reducing market competition from the later start-ups. States have legitimized Bitcoin, for example, in several cases: in Japan, the state seized bitcoin

in the 2014 Mt. Gox bankruptcy case to pay creditors;[94] US marshals auctioned $13.5 million of bitcoins seized in the Silkroad shutdown;[95] and the 2017 investigative report of DAO tokens cites *SEC v. Shavers*, which held that bitcoin passed the *Howey* test as "an investment money."[96]

The United States belatedly realized that cryptocurrencies challenge centralized regulatory control. The SEC's treatment of later ICOs seems to be an effort to stop these projects from reaching the same level as Bitcoin and Ethereum. The SEC's regulation of ICOs, which occurred after the ICOs have concluded, might seem reactionary, but, in reality, its regulation appears to be a *proactive* attempt to prevent other start-up cryptocurrencies from reaching the same level of decentralization as earlier coins. The state, not society, acts as the main brake on new innovations in cryptocurrencies and their marketplaces. This is best exhibited by Telegram's disgorgement to initial investors. As Peirce asked: "Who did we protect by bringing this action? The initial purchasers, who were accredited investors? The members of the public, many of whom are outside the United States, who would have bought the Grams and used them to buy and sell goods and services on the TON blockchain? Did they really look to U.S. securities laws for protection?"[97] This suggests that the government's emerging interest in ICO regulation comes from a self-interest to shut down threats to its regulatory authority, national security concerns, or "as part of a broader effort to address

94. Alexandra Harney and Steve Stecklow, "Twice Burned: How Mt. Gox's Bitcoin Customers Could Lose Again," Reuters, Nov. 16, 2017, www.reuters.com/investigates/special-report/bitcoin-gox.

95. Rosenfield, "Feds auction $13.5 M."

96. Nikita Tepikin, "Legal Opinion: The Project: Getcryptopayments Platform," Legal Kornet Law Firm, Dec. 17, 2019, 19, exmrfoundation.org/legal-opinion.pdf.

97. Peirce, "Not Braking and Breaking."

tax avoidance.[98] These actions may help US society, but it is not society that is driving the impetus to pull back the crypto markets.

Finally, the current regulatory landscape is the best way to consider how a cryptocurrency may threaten a nation-state, and how it might be regulated requires considering two qualities of the crypto network; ultimately, these qualities determine if it is a trustless system. The first and most important of these qualities is that the network is permissionless, i.e., that anyone can access the network system. The second is that the network is decentralized, i.e., there is no central group or person(s) that is largely responsible for running the network. It is essential that a network is permissionless because this ensures that there is no third-party central group needed to give users permission to access the network; thus, in order for a network to be decentralized, it must be permissionless, so that it can easily add users and disperse the responsibility of maintaining the network. A network is therefore trustless when there is no group approving who can join or use the system *and* there is no identifiable group responsible for keeping the blockchain operational. If a network is trustless, it will function like Bitcoin and leave governments unable to regulate the network itself. Instead, these trustless systems will be regulated when they interact with centralized networks or at on-off ramps when exchanging the crypto for fiat currencies. If a network is permissioned or centralized, governments will regulate those entities. Whether the regulations are created specially for the technology or if old regulations apply because the crypto systems mirror traditional finance, regulations are sure to appear for these trusted systems.

The ultimate result of the sufficiently decentralized conundrum has been the creation of two worlds of cryptocurrency: centralized and decentralized. As seen with the SEC's regulation of ICOs, the areas of cryptocurrency that mirror traditional finance structures and cryptocurrencies/crypto services that have an identifiable group to regulate will be regulated because they can be. Still, there are challenges to regulate crypto using

98. Jeff Stein, "White House Reviews 'Gaps' in Cryptocurrency Rules as Bitcoin Swings Wildly," *Washington Post*, May 25, 2021, www.washingtonpost.com/us-policy/2021/05/25/biden-bitcoin-crypto-markets.

existing regulations, and the United States is not alone in the struggle to regulate crypto using existing regulatory frameworks. A myriad of different policies have been made by different nations to address the challenges that cryptocurrencies present to nation-states.[99] For example, in 2013 China's central bank banned Bitcoin in order to "safeguard the interests and property rights of the public … [and to] maintain financial stability,"[100] and in 2021 it banned cryptocurrency mining and exchanges in favor of its own digital currency, which offers central bank control and monitoring of "citizens' economic activity."[101] On the other hand, El Salvador has embraced cryptocurrency and made bitcoin national tender.[102] The European Union has proposed a complex taxonomy and comprehensive regulatory regime in order to "provide legal certainty for crypto-assets not covered by existing EU financial services legislation and establish uniform rules for crypto-asset service providers and issuers at EU level."[103] As the attorney Ed Howden writes: "Who and what regulates these cryptos will depend largely upon

99. Ed Howden, "The Crypto-Currency Conundrum: Regulating an Uncertain Future," *Emory International Law Review* 29, no. 4 (2015): 742–98, scholarlycommons.law.emory.edu/eilr/vol29/iss4/3.

100. Ibid., 759.

101. Kenneth Rapoza, "China's Central Bank: 'Bitcoin Has No Value,'" *Forbes*, www.forbes.com/sites/kenrapoza/2021/08/31/chinas-pboc-bitcoin-has-no-value-can-central-bankers-kill-bitcoin/?sh=63ed32b22f35; Amy Qin and Ephrat Livni, "China Cracks Down Harder on Cryptocurrency With New Ban," *New York Times*, Sept. 24, 2021, www.nytimes.com/2021/09/24/business/china-cryptocurrency-bitcoin.html.

102. Nelson Renteria and Anthony Esposito, "El Salvador's World-First Adoption of Bitcoin," Reuters, Sept. 8, 2021, www.reuters.com/business/finance/el-salvador-leads-world-into-cryptocurrency-bitcoin-legal-tender-2021-09-07

103. "Proposal for a Regulation of the European Parliament and of the Council on Markets in Crypto-Assets, and Amending Directive (EU) 2019/1937," European Commission, Sept. 24, 2020, eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0593.

how they come to be defined."[104] To deal with the conundrum, nations must balance their mandate to regulate with the likelihood that heavy or piecemeal regulation will result in more problems "as more individuals and entities move into bitcoin and use it as a measure of exchange."[105] Nations ought to continue to be patient and find working, sensible definitions for tokens that do not disregard their underlying function or potential to evolve. As states further regulate the on and off ramps of the crypto marketplace, they risk making it harder for individuals to invest and access the underlying networks, but the marketplace will certainly continue to exist and will continue to create innovations that resist regulation.[106] In general, governments should proceed with caution: "As the popularity among bitcoin and its other counterpart cryptos become ever more enmeshed in the global market, … it is imperative to be cautious with regulation moving forward, and not make too much haste by enacting regulation that could be considered over burdensome and detrimental to the global economy."[107]

This paper only scratches the surface of the problems, puzzles, and solutions that cryptocurrency has created. Cryptocurrencies have produced novel regulatory issues, and it is unclear how they will be solved, but it is clear that more work needs to be done to understand them.[108] To start, more

104. Howden, "The Crypto-Currency Conundrum," 745.

105. Ibid., 744.

106. Ibid., 760.

107. Ibid., 798.

108. Some of the academic institutes, nonprofit think tanks, and companies examining these issues include the Cambridge Centre for Alternative Finance, Chainalysis, Coin Center, Harvard Law School Blockchain and Fintech Initiative, MIT's Digital Currency Initiative, and Stanford Law School's Blockchain Group. Interested policymakers and lawmakers include Acting Comptroller of the Currency Michael Hsu, Commodity Futures Trading Commission's Dawn Stump, Fed Chair Jerome Powell, Representatives Patrick McHenry, Warren Davidson, Darren Soto, Tom Emmer, and Mike Quigley, SEC Chair Gary Gensler, and Senators Cynthia Lummis, Ron Wyden, Pat Toomey, and Elizabeth Warren.

can be done to find working definitions for tokens that do not disregard their functions or potential for change, as these definitions will ultimately determine how they are regulated. Additionally, studies are needed to understand how governments weigh the risks and benefits of cryptocurrencies: whether governments perceive cryptocurrencies to be a threat to existing markets, and whether regulatory action drives innovation and investment opportunities abroad. Finally, given the chance that cryptocurrencies and decentralized finance are the future of financial services and global trade, general, broad studies are needed to understand how cryptocurrencies affect society and economies. ⊙

APPENDIX

Jay Clayton on Cryptocurrency

I reviewed Jay Clayton's thirty speeches, statements, and testimony, which he made as chairman of the US Securities and Exchange Commission. The following mention cryptocurrencies and are listed in chronological order.

Testimony

"Chairman's Testimony on Virtual Currencies: The Roles of the SEC and CFTC," Feb. 6, 2018, www.sec.gov/news/testimony/testimony-virtual-currencies-oversight-role-us-securities-and-exchange-commission.

Statements

"Statement on Cryptocurrencies and Initial Coin Offerings," Dec. 11, 2017, www.sec.gov/news/public-statement/statement-clayton-2017-12-11.

"Statement on NASAA's Announcement of Enforcement Sweep Targeting Fraudulent ICOs and Crypto-asset Investment Products," May 22, 2018, www.sec.gov/news/public-statement/statement-nasaas-announcement-enforcement-sweep-targeting-fraudulent-icos-and.

Speeches

"Remarks at the Economic Club of New York," July 12, 2017, www.sec.gov/news/speech/remarks-economic-club-new-york.

"Governance and Transparency at the Commission and in Our Markets," Nov. 8, 2017, https://www.sec.gov/news/speech/speech-clayton-2017-11-08.

"Opening Remarks at the Securities Regulation Institute," Jan. 22, 2018, www.sec.gov/news/speech/speech-clayton-012218.

"Remarks on the Establishment of the Task Force on Market Integrity and Consumer Fraud," July 11, 2018, www.sec.gov/news/speech/task-force-market-integrity-and-consumer-fraud.

"Remarks on Capital Formation at the Nashville 36|86 Entrepreneurship Festival," Aug. 29, 2018, www.sec.gov/news/speech/speech-clayton-082918.

"SEC Rulemaking Over the Past Year, the Road Ahead and Challenges," Dec. 6, 2018, www.sec.gov/news/speech/speech-clayton-120618.

"Equity Market Structure 2019," Mar. 8, 2019, www.sec.gov/news/speech/clayton-redfearn-equity-market-structure-2019.

"Management's Discussion and Analysis of the SEC," Apr. 8, 2019, www.sec.gov/news/speech/speech-clayton-040819.

"Putting Principles into Practice, the SEC from 2017–2020," Nov. 19, 2020, www.sec.gov/news/speech/clayton-economic-club-ny-2020-11-19.

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