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Cryptocurrency and the SEC's Limitless Power Grab

Why Speculative Consumer Goods Are Not "Securities"

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Many questions are being asked about cryptocurrency. Is it a major innovation that will improve standards of living in ways we cannot yet imagine? Or is it a trendy phenomenon that will result in a speculative bubble of volatile assets? The answer to these questions may be: both of the above. New technologies have often produced bubbles that result in large disruptive busts. But after the bubble has burst and the dust has settled, the benefits of the innovation survive and lead to new, unforeseen benefits.

Yet, for all the talk about its novelty, the concept behind cryptocurrency has been around since the dawn of civilization. Cryptocurrency adds an electronic dimension to the privately issued currency and tokens that have existed through much of world history, as various items took on the role of money without government playing much, if any, role. For example, cowry shells, the shells of large snails, circulated as a medium of exchange from the 13th century B.C. to the 20th century in large parts of Africa and Asia and in scattered areas in Europe.¹

In the American colonies and in the early days of the republic, tobacco warehouse receipts, also called tobacco notes, circulated as money. Promissory notes that were good at a number of tobacco warehouses throughout the original American states soon began to be used to purchase other items.² During the early-to-mid 19th century, thousands of currencies from banks and other business circulated in the U.S. For instance, the Howard Banking Company issued a bank note emblazoned with the image of Santa Claus in the 1850s that was redeemable for \$5 worth of gold or silver.³

So in one sense, cryptocurrency is part of a long tradition of privately issued money, but it is also much more.⁴ Bitcoin and other cryptocurrencies are peer-to-peer networks driven by consensus that make electronic cash for remote transactions without bank-like intermediaries.⁵ Unfortunately, its promise for transformative innovation could come to a screeching halt under the weight of burdensome regulation.

SEC Threatens Regulation. Among federal financial regulatory agencies, none poses a greater threat to cryptocurrency and the associated blockchain technologies than the Securities and Exchange Commission (SEC). Created in the 1930s to police "securities" such as stocks, bonds, and mutual funds, it was inevitable that the SEC regulation would come to interact with cryptocurrency. The SEC has jurisdiction over the financial

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statements of U.S. stock exchange-listed companies that issue cryptocurrency or accept payment in cryptocurrency, as well as over investment firms that hold cryptocurrency firms or cryptocurrency in their portfolios. The SEC has authority under the securities laws to ensure that companies accurately describe to investors the particulars of a firm's cryptocurrency-related activities. However, over the past few years, the SEC has singled out firms dealing with cryptocurrency for more stringent treatment and has claimed jurisdiction over cryptocurrency products that was never granted to it by Congress. Further, the theory SEC Chairman Jay Clayton is pushing to deem cryptocurrencies as securities stretches the definition of "security" so broadly that even items such as collectible comic books could come under SEC jurisdiction.

Even before cryptocurrency came on the scene, the increasingly heavy hand of SEC regulation has come under scrutiny for stifling opportunities for startup entrepreneurs to raise capital and for middle class investors to get better returns on their investments. The SEC, as well as the securities laws it enforces, have come under bipartisan criticism from academics, entrepreneurs, investors, and members of Congress for creating red tape that makes it difficult both for entrepreneurs to raise capital in the public markets and for investors to find wealth-building opportunities. This concern prompted Congress to pass regulatory relief overwhelmingly in the Jumpstart Our Business Startups (JOBS) Act, which was signed by President Obama in 2012. In 2018, the U.S. House of Representatives passed a bill allowing further relief, the Jobs and Investor Confidence Act, with only four dissenting votes.⁶

The JOBS Act eased some burdens on entrepreneurs and investors by lifting bans on advertising in private companies and by exempting small and "emerging growth" companies from some of the costly burdens of securities laws like the Sarbanes-Oxley Act of 2002 and the Dodd-Frank Act of 2010. The law seemed like a good foundation for reforming financial regulation in order to make it less burdensome for startup entrepreneurs innovating in new areas of technology and for informed investors willing to take risks.

So there were grounds for optimism when President Trump nominated Jay Clayton to serve as the chairman of the SEC, saying he hoped that Clayton would "undo many regulations which have stifled investment in American businesses, and restore oversight of the financial industry in a way that does not harm American workers."⁷ Rather than focus on this call for easing regulatory burdens, Clayton has spent much of his time expanding the SEC's reach to go after firms and products that Congress has never given it the authority to regulate. Clayton is stretching the term "securities"—traditionally defined as stocks, bonds, and investment contracts—to cover issuances of cryptocurrency and bring them under the SEC's jurisdiction, using the cryptocurrency "bubble" as a justification.

The prospect of this innovation coming under the same smothering SEC regulation that exists for publicly traded firms has made the cryptocurrency market even more volatile and created uncertainty for the development of associated blockchain technologies, which in most cases rely on cryptocurrency as an incentive for developers to keep them running.

Clayton's worries about bubbles in the technology industry are misplaced. The dot-com bubble of the early 2000s is a perfect example of what the renowned Austrian economist Joseph Schumpeter called "creative destruction."⁸ The stock market value of many high-flying Internet firms did indeed vanish as quickly as it had risen. However, when the dust settled, innovations of the Internet era, such as e-commerce and search engines, were still around and thriving, along with giants-to-be like Google and Amazon. By 2006, more than 80 million Americans, or 42 percent of households, had broadband access, a figure that has now grown to 92 percent.⁹ Meanwhile, online shopping transformed retailing.¹⁰

From Cryptocurrency to Blockchain. Could cryptocurrencies and blockchain technology lay the groundwork for innovation as consequential as the railroad and the Internet? Strong evidence indicates the answer is yes, particularly from the link between cryptocurrency and blockchain. Revolutions may well be occurring not just in money, but in ledgers and recordkeeping as well. But the process of innovation is following the similar bumpy route of previous technologies.

Before the development of Bitcoin, the first cryptocurrency, all remote payment transactions had to be conducted through central intermediaries that process the payment and keep a record of the transaction. This is largely to keep track of the money and avoid double spending by, for example, creating multiple electronic images of the same \$10 bill.¹¹ Since it is very easy to copy a digital item, cheaters may try to buy multiple goods with one currency unit.¹² Simply emailing computer files as payment would give no reliable verification that cash had moved. Therefore, banks and other intermediaries kept a centralized registry of transactions that determined if the payer had rights to the funds in question.

Cryptocurrency has changed all this with the creation of scarce digital tokens validated by a peer-to-peer-network of the tokens' users called "blockchain." (The term is used without article in the plural, when referring to many "blockchains" listing different transactions.)

When Bitcoin was first developed as a digital asset and medium of exchange around 2009, its inventor, or group of inventors, the presumably pseudonymous Satoshi Nakamoto, created a blockchain ledger to ensure that Bitcoin's distribution could be managed in a decentralized, peer-to-peer fashion, made possible by the science of cryptography, rather than a central authority in business or government. Nakamoto declared: "What is needed is an electronic payment system based on cryptographic proof instead of trust, allowing any two willing parties to transact directly with each other without the need for a trusted third party. Transactions that are *computationally impractical* to reverse would protect sellers from fraud, and routine escrow mechanisms could easily be implemented to protect buyers."¹³ [Emphasis added]

Blockchain works as a distributed ledger, in which multiple users keep encrypted records of a transaction. Each block of the chain stores numerous transactions with all relevant data, which are added to the chain and linked to the previous block. As explained by the Nakamoto white paper, blockchain is like a "timestamp server" in which "each timestamp includes the previous timestamp, ... forming a chain, with each additional timestamp reinforcing the ones before it." The timestamp is then distributed through "a peer-to-peer

network using proof-of-work to record a public history of transactions that quickly becomes computationally impractical for an attacker to change.”¹⁴

Since this technology greatly improves records management, it has potential functions well beyond cryptocurrency. Already, it is being used in applications such as medical recordkeeping, land registry, and identity theft prevention.¹⁵ Its potential is being explored in a variety of areas to solve longstanding problems. In January 2017, the U.S. Food and Drug Administration announced a collaboration with Watson, IBM’s machine learning division, to use a blockchain platform to securely share data from electronic health records and clinical trials. Blockchain achieves the seemingly contradictory goals of enhanced data security and privacy and the ability to rapidly access medical records by authorized medical professionals. It allows patients to consult doctors and nurses, with the confidence that their data are being protected from potential hackers.¹⁶

The capabilities of blockchain technology may be instrumental in land reform as well. The renowned development economist Hernando de Soto has said that blockchain could be so transformative in securing property rights in the developing world that, “I feel a great moral obligation to refocus my life around” the technology.¹⁷ De Soto and the Lima, Peru-based Institute for Liberty and Democracy (ILD), which he leads, are currently working with blockchain technology firm Bitfury on establishing a land registry in the Republic of Georgia.¹⁸ DeSoto is also seeking to set up similar blockchain-based registries in countries in Africa, South America, and Asia.¹⁹ The ILD projects aim to record locally recognized land assets into a blockchain utilizing cryptocurrency in order to create a public ledger that would record and legitimize the land and water rights both the interests of both small farmers and miners and multinational companies.

Even cryptocurrency critics such as former Federal Reserve Governor Kevin Warsh concede that blockchain-based technology may be beneficial. However, they argue it could be divorced from cryptocurrency and its supposed problems.²⁰ But cryptocurrencies, or digital tokens, are essential to maintaining blockchain-based ledgers by incentivizing its record keepers to perform their crucial roles.

How Government Overreach Stifles Innovation and Worsens Bubbles. From trial and error comes success. Therefore, much of the fate of the technology depends on government policy. Fraud must be punished, but government should not overreach with one-size-fits-all rules that could halt innovation in its tracks. The world will never know the full potential of cryptocurrency and blockchain if heavy-handed government regulation hinders entrepreneurs from experimenting with novel approaches and applications.

Protecting entrepreneurs from government overreach is important not only to ensure that society gains from beneficial innovation, but also to moderate the kind of volatility that arises from government intervention.

In the case of the tech bubble, one often overlooked factor behind the crash was the Clinton Justice Department’s antitrust case against Microsoft. On April 3, 2000, Judge Thomas Penfield Jackson ruled that Microsoft had violated the Sherman Antitrust Act, siding with

the government that Microsoft's integration of its Web browser with its operating system constituted an illegal "restraint of trade" against its competitors. Microsoft's stock fell nearly 15 percent upon news of this ruling. But surprisingly to some, nearly all major tech firms, including Microsoft's competitors, also saw their stocks fall upon news of the ruling. The NASDAQ Stock Market dropped 350 points that day, losing 8 percent of its value.²¹ Tech stocks as a group continued to decline for the next two years. Of course, the dot-com crash is too complex a phenomenon to attribute to a single cause, but the government's prosecution of Microsoft clearly did not help.

Much of cryptocurrency's apparent bust appears to be caused by the threat of government overreach as well. At the beginning of 2017, the price of Bitcoin, the world's largest-circulating cryptocurrency, had yet to reach \$1,000.²² By the end of that year, it was trading at more than \$13,000,²³ after reaching a high of nearly \$20,000 a few weeks earlier on the CoinDesk Bitcoin Price Index.²⁴

Other cryptocurrencies, such as Ether and Litecoin, tracked Bitcoin's rise in price in 2017 and tumbled along with it in early 2018. Since the end of 2018, Bitcoin has been trading on most exchanges at slightly less than \$4,000, until it rallied to more than \$5,000 at the beginning of April 2019. While much of the drop can be attributed to an overheated market that was finally cooling down, fear of government crackdowns likely played a significant role in this decline. When news first broke that China might ban certain cryptocurrency exchanges, the price of Bitcoin dropped by 10 percent in one day. When China actually banned these exchanges five months later in February 2018, the price sank by a similar amount.²⁵

In the U.S., hostility toward cryptocurrency has come from across the political spectrum. Some pundits, like former Federal Reserve Governor Warsh—who was appointed by President George W. Bush and often comments on cryptocurrency in the financial press, including *The Wall Street Journal* and CNBC—have acknowledged the currency's innovations, but have called for the Federal Reserve issue its own digital currency and essentially stamp out private alternatives.²⁶ Rep. Brad Sherman (D-Calif.) has stated that "blockchain is a good technology," but favored its exclusive monetary use with central bank currency. "There is nothing that can be done with cryptocurrency that cannot be done with sovereign currency that is meritorious and helpful to society," he said.²⁷

Since early 2017, the SEC has rejected more than 10 separate proposals by investment companies to sell Bitcoin-holding exchange-traded funds (ETFs) to retail investors.²⁸ A July 2018 Bitcoin ETF rejection drew a strong dissent from Commissioner Hester Peirce, who called out the SEC for singling out cryptocurrency investment vehicles with more stringent rules than those for other ETFs. The SEC's rejection, she said, "signals an aversion to innovation that may convince entrepreneurs that they should take their ingenuity to other sectors of our economy, or to foreign markets, where their talents will be welcomed with more enthusiasm." Above all, the SEC should concern itself with a firm's accurate disclosure and not act as a "gatekeeper to innovation." Peirce also warned that this action would put a potentially safer Bitcoin investment out of reach of middle class investors, who can buy the currency on cryptocurrency exchanges out of the SEC's reach—for now. "This

disapproval therefore unintentionally undermines investor protection,” she said. “It precludes investors from accessing bitcoin through an exchange-listed avenue that offers predictability, transparency, and ease of entry and exit.”²⁹

Most Cryptocurrencies Are Not Securities. The SEC’s answer to this “investor protection” problem would place even more restrictions on investor choice, by expanding the SEC’s jurisdiction to cryptocurrency itself and to cryptocurrency exchanges, such as Coinbase, that match buyers and sellers. Without changes in the law, stated intent of Congress, or even a formal rule, the SEC has been sending signals through enforcement actions and statements from officials and that new issuers of cryptocurrency may need to go through the same cumbersome securities registration process as do issuers of stocks and bonds.

The SEC first weighed in on whether cryptocurrency could be deemed a security in a July 2017 public report on its investigation of a cryptocurrency-using platform called “The DAO.” To use this platform, participants purchased DAO tokens with the cryptocurrency Ether, and the tokens entitled participants to voting rights and “rewards.” A DAO co-creator likened the platform to “buying shares in a company and getting ... dividends.”³⁰ The SEC labeled DAO tokens as illegal unregistered “securities,” but did not bring an enforcement action, which may have been in part because The DAO had shut down and participants had already been refunded by the time the investigation was concluded.³¹ Because of the explicit promotion of the DAO system as an investment platform—a unique characteristic absent from the issuance of most cryptocurrencies—the SEC’s report was not widely seen at the time as potentially threatening the broader cryptocurrency market.³²

However, soon after it issued the DAO report, the SEC began issuing desist orders not only to entities offering cryptocurrency as part of an investment structure, but also to entrepreneurs who had not made any promise of an investment return. It deemed as a “security” the digital Munchee coin, even though it was not promoted as an investment, but offered as a reward for contributors to a restaurant review app of the same name. After they completed a certain number of reviews, writers would get tokens that could be redeemed for complimentary or discounted meals. Nevertheless, the SEC went after these coins because of the possibility of a speculative “secondary market,” and the restaurant review app agreed to stop offering them in late 2017.³³

SEC Chairman Clayton then stated to Congress in early 2018 that he has never seen a coin or token offering that in his mind was not a “security.”³⁴ According to the cryptocurrency news site Bitcoin.com, hundreds of cryptocurrency creators “are reportedly being ‘secretly’ targeted” by the SEC, and that these firms and individuals “are now scrambling to clarify whether their token constituted a security, and, if so, whether it was properly registered with or exempted by the SEC.”³⁵

Deeming cryptocurrency as a “security” could put cryptocurrency out of the reach of middle-class investors because of the same red tape—both from SEC regulations and from financial regulation laws such as the Sarbanes-Oxley Act of 2002 and the Dodd-Frank Act of 2010—that has hindered small investors’ access to stock in early stage growth companies.

By forcing the documenting of minutiae for public companies, securities laws such as Sarbanes-Oxley and Dodd-Frank have quadrupled auditing costs and made it prohibitively expensive for new firms to go public. Thus, most companies going public today are large, dominant firms. Wealthy “accredited investors” were the only ones who prospered during their early growth stages.³⁶ “Everyone involved the field is nervously watching” the SEC, writes renowned technology writer George Gilder in his 2018 book, *Life After Google*. “The danger is that it will extend the doldrums into which it has led the entrepreneurial economy and drive industry out of the country.”³⁷

There are also dangers to the functioning of blockchain technology—and all the transformative innovation that could flow from it—were the SEC to deem cryptocurrency a “security.” An influential law journal article by Jeffrey Alberts and Bertrand Fry, partners at Pryor Cashman LLP who specialize in financial technology (FinTech), argues that applying securities law to cryptocurrency could mean that thousands of members of peer-to-peer blockchain networks may have to register with the SEC as securities “issuers.”³⁸ This could also be the case even for a blockchain that is not utilized primarily for cryptocurrency. If those who maintain such blockchain are reimbursed with some type of cryptocurrency or digital tokens, as is current practice in many blockchain technology operations, they may still need to register as securities “issuers” depending on what rules are applied.

Many commentators have found the SEC’s deeming of cryptocurrency as a “security” to be a stretch of the securities’ laws’ original intentions. As Gilder writes: “Tokens represent not ownership shares of a company but rather various goods, services, gift cards, and other elements of a company’s value proposition. . . . Companies sell goods and services all the time in a variety of ways without any thought of the SEC.”³⁹

Aside from the DAO, the SEC is not claiming that most cryptocurrency resembles stocks or bonds. By itself, cryptocurrency does not grant either ownership stakes in a company or a promised rate of interest or return on investment. Instead, the SEC is deeming many new issuances of cryptocurrency as securities because it argues that they fit a broad definition of the term “investment contract.” In June 2018, SEC Director of Corporation Finance Bill Hinman claimed that while established currencies such as Bitcoin and Ether are not securities now, they may have been when they were first created.⁴⁰ In a March 7, 2019 letter to Rep. Ted Budd (R-N.C.), Clayton said that he agreed with Hinman’s claim that a cryptocurrency that was “initially . . . a security” may “no longer meet that definition.” But, unlike Hinman, Clayton did not specify which cryptocurrencies he believed did not qualify as securities. Clayton signaled no major change to the SEC’s stance on cryptocurrency offerings. Instead, he argued that the SEC was simply carrying out federal securities laws that “define ‘security’ broadly to encompass virtually any instrument that may be sold as an investment.”⁴¹

Maintaining that most cryptocurrency is bought for speculative purposes, the SEC is relying on a Supreme Court case decided more than 70 years ago, *SEC v. Howey* (1946), which found that shares in orange groves were securities when paired with service contracts.⁴² “The transactions in this case clearly involve investment contracts as so defined,” the Supreme Court declared. “The respondent companies are offering something more than fee

simple interests in land, something different from a farm or orchard coupled with management services. They are offering an opportunity to contribute money and to share in the profits of a large citrus fruit enterprise managed and partly owned by respondents.”⁴³

In the DAO report and other publications, the SEC has pointed to the “Howey test,” which stems from the Supreme Court case, as giving it the power to regulate many cryptocurrencies as securities. In *Howey*, the Court wrote, “The test is whether the scheme involves an investment of money in a common enterprise with profits to come solely from the efforts of others.”⁴⁴

Yet even under the broad reading of “investment contracts” from the Howey test, cryptocurrency appears to fall outside the statutory definition of “securities.” In *Howey*, the service contracts obligated the original owner to maintain the orange groves for a number of years. The court stated that “there is ordinarily no right to specific fruit” for the owners of shares in the grove.⁴⁵ There are no such maintenance obligations in most cryptocurrency contracts, and consumers individually own the “fruit”—or coins—from day one.⁴⁶

In a recent letter to the SEC that likely signals a looming legal challenge, attorneys for the popular Canadian social network Kik maintain that the SEC “has stretched the definition of a ‘security’—and, in particular, the definition of an ‘investment contract’ that the Supreme Court adopted over 70 years ago in *SEC v. W.J. Howey Co.*, 328 U.S. 293, 301 (1946)—beyond its original meaning and intent.”⁴⁷ The letter was in response to an SEC preliminary determination that Kik violated securities laws when it offered a cryptocurrency called Kin to members of the social network. According to Kik’s letter, the SEC has never alleged that Kik committed any type of fraud in the offering, so the issue is purely one of issuing cryptocurrency without going through the red tape of a “securities” offering.⁴⁸ The letter concludes that “we believe the proposed enforcement action would exceed the Commission’s statutory authority and, as such, would fail.”⁴⁹ The letter cites an admonition from a panel of the Ninth Circuit Court of Appeals that “while the subjective intent of the purchasers may have some bearing on the issue of whether they entered into investment contracts, we must focus our inquiry on what the purchasers were offered or promised.”⁵⁰

In early April, the SEC issued a guidance document in response to demands from lawmakers and the cryptocurrency community to provide clarity on how it plans to apply securities laws apply to cryptocurrencies. But the guidance, “Framework for ‘Investment Contracts’ Analysis of Digital Assets,” appears to stretch the Howey Test even further and broadens greatly what products could be considered securities.⁵¹ Georgia Quinn, a prominent FinTech attorney and general counsel at CoinList, said, “This stretches the test of what is a security from the three prongs of the *Howey* test to more than 40 prongs.”⁵² It is worth noting that the guidance document was issued by SEC staff; it is not a rule voted on by the commissioners, but may still influence enforcement actions.⁵³

One of the new factors the SEC seems to consider to deem a cryptocurrency a security is the existence of a secondary market—a characteristic that previously had played no part in the Howey test. Whether the oranges from the Howey groves could be sold in different markets was never at issue in the 1946 Supreme Court case. The Court deemed the interests in the

groves to be securities because of participants' right to a share of the profits and provisions in the specific service contracts that obligated the original owner to maintain the groves for the participants' benefit. Nevertheless, the SEC guidance mentions the term "secondary market" seven times. The guidance advises that even in cases where coins can be used in a functional market for goods and services, "there may be securities transactions if ... there are limited or no restrictions on reselling those digital assets."⁵⁴

The SEC's expanded definition of a "security" to be "virtually any instrument that may be sold as an investment," in Clayton's words, or a product for which a "secondary market" exists, poses a threat to both cryptocurrency and many business sectors. Quinn says, "After reading this, I think airline miles and retailer points could be considered securities," noting that some brands of these items are transferrable and therefore could be deemed to have a "secondary market."⁵⁵ For example, the site Points.com enables users to not only manage reward points, but also exchange them.

There are also many physical goods, from wine to comic books, which consumers buy both for enjoyment and for speculative purposes and which the SEC could claim to regulate as "securities" under its rationale for regulating cryptocurrency. With comic books, for instance, there was even a major industry bubble in the 1980s and 1990s, when publishers printed many new special editions, in part to please collectors and speculators. Many comic book retailers and issuers suffered from a wave of bankruptcies when the bubble burst in the mid-1990s. Yet there was no call for the SEC to regulate the comic book market—or the market for baseball cards, for that matter.⁵⁶

There are plenty of federal and state agencies that have much clearer jurisdiction than the SEC to police cryptocurrency fraud. In fact, digital currencies have been called by one observer "one of the most regulated sectors within FinTech." The Financial Crimes Enforcement Network, Federal Trade Commission, and various state agencies already have asserted jurisdiction over cryptocurrencies.⁵⁷ Congress can also update laws on the books to more clearly and narrowly define federal agencies' jurisdiction. For cryptocurrency and other new technologies to flourish, consumers, investors and entrepreneurs must be protected from the overreach of the SEC.

Both cryptocurrency and blockchain are entering their second decade. As with many emerging young technologies, they have accomplished much in their first decade, but have yet to bloom fully into adulthood. That is all the more reason to protect them from what Nobel Laureate economist Milton Friedman called the "invisible foot" of government regulation, and instead let their growth be guided by the thousands of invisible hands of the marketplace.⁵⁸

Notes

¹ "Cowry Shells: a Trade Currency," National Bank of Belgium, <https://www.nbbmuseum.be/en/2007/01/cowry-shells.htm>. Boban Docevski, "Cowry Shell Coins: an Ancient Monetary System Based on Sea Shells Used on Almost Every Continent," The Vintage News, January 21, 2018, <https://www.thevintagenews.com/2018/01/21/cowry-shell-coins/>.

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- ² Sharon Ann Murphy, “Early American Colonists Had a Cash Problem. Here’s How They Solved It,” *Time*, February 27, 2017, <http://time.com/4675303/money-colonial-america-currency-history/>.
- ³ “The Birth of the Dollar Bill,” Planet Money, Episode 421, National Public Radio, December 7, 2012, <https://www.npr.org/templates/transcript/transcript.php?storyId=166747693>.
- ⁴ For more on this tradition, see Friedrich A. Von Hayek, *Denationalisation of Money: An Analysis of the Theory and Practice of Concurrent Currencies* (London: Institute of Economic Affairs, 1976).
- ⁵ Peter Van Valkenburgh, “Exploring the Cryptocurrency and Blockchain Ecosystem,” Testimony before the U.S. Senate Committee on Banking, Housing, and Urban Affairs, October 11, 2018, p. 47, <https://www.banking.senate.gov/imo/media/doc/Van%20Valkenburgh%20Testimony%2010-11-18.pdf>.
- ⁶ John Berlau, “Let Middle-Class Investors Join the ‘Accredited’ Club,” *Forbes.com*, August 27, 2018, <https://www.forbes.com/sites/johnberlau/2018/08/27/let-middle-class-investors-join-the-accredited-club/#457d26414641>
- ⁷ “Trump Nominates Jay Clayton Chairman of the SEC,” *Reuters*, January 4, 2017, <https://www.reuters.com/article/usa-trump-sec-idUSW1N1D10DU>.
- ⁸ Joseph Schumpeter, *Capitalism, Socialism and Democracy* (New York: Harper, 1975) [orig. pub. 1942], pp. 82-85, Literature and the Culture of Information, <http://transcriptions-2008.english.ucsb.edu/archive/courses/liu/english25/index.html>. Schumpeter wrote that the “process of Creative Destruction is the essential fact about capitalism. It is what capitalism consists in and what every capitalist concern has got to live in.”
- ⁹ 2018 Broadband Deployment Report, Federal Communications Commission, <https://www.fcc.gov/reports-research/reports/broadband-progress-reports/2018-broadband-deployment-report>
- ¹⁰ Daniel Gross, “The Bubbles that Built America,” *CNN Money*, undated, accessed February 4, 2019, <https://money.cnn.com/galleries/2007/news/0705/gallery.bubbles/jump.html>.
- ¹¹ *Ibid.*
- ¹² Chris Berg, Sinclair Davidson, and Jason Potts, “What Does the Blockchain Mean for Government? Cryptocurrencies in the Australian Payments System,” RMIT Blockchain Innovation Hub, p. 3, https://www.pc.gov.au/_data/assets/pdf_file/0012/226020/subdr061-financial-system.pdf.
- ¹³ Satoshi Nakamoto, “Bitcoin: A Peer-to-Peer Electronic Cash System,” White Paper, Undated but circa 2008, p. 1, <https://bitcoin.org/bitcoin.pdf>.
- ¹⁴ Nakamoto, pp. 2-8.
- ¹⁵ John Berlau, “Let’s Keep Cryptocurrency Mines Running in Human Achievement Hour and Every Hour,” *Forbes.com*, March 24, 2018, <https://www.forbes.com/sites/johnberlau/2018/03/24/lets-keep-cryptocurrency-mines-running-in-human-achievement-hour-every-hour/#63e2f8b267f8>.
- ¹⁶ Crypt Bytes Tech, “Medicalchain—A blockchain for electronic health records,” *Medium.com*, November 16, 2017, <https://medium.com/crypt-bytes-tech/medicalchain-a-blockchain-for-electronic-health-records-eef181ed14c2>.
- ¹⁷ Gillian Tett, “Bitcoin, blockchain and the fight against poverty,” *Financial Times*, December 27, 2017, <https://www.ft.com/content/60f838ea-e514-11e7-8b99-0191e45377ec>.
- ¹⁸ Richard Kastelein, “Georgia to Store Real Estate Documents in Blockchain System with Bitfury Group and Hernando de Soto,” *Blockchain News*, January 10, 2017, <https://www.the-blockchain.com/2017/01/10/georgia-store-real-estate-documents-blockchain-system-bitfury-group-herando-de-soto/>.
- ¹⁹ Andrew Nelson, “De Soto Inc.: Where Eminent Domain Meets the Blockchain,” *Bitcoin Magazine*, May 5, 2018, <https://bitcoinmagazine.com/articles/de-soto-inc-where-eminent-domain-meets-blockchain/>.
- ²⁰ Ana Alexandre, “Former US Federal Reserve Governor Says Federal Digital Currency Deserves Consideration,” *Cointelegraph*, May 5, 2018, <https://cointelegraph.com/news/former-us-federal-reserve-governor-says-federal-digital-currency-deserves-consideration>.
- ²¹ Jake Ulick, “NASDAQ sinks 350 points,” *CNN Money*, April 3, 2000, https://money.cnn.com/2000/04/03/markets/markets_newyork/.
- ²² Pete Rizzo, “Bitcoin Price Tops \$1,000 in First Day of 2017 Trading,” *Coindesk*, January 1, 2017, <https://www.coindesk.com/bitcoin-price-1000-january-1-2017/>.
- ²³ “Historical Snapshot—December 31, 2017,” *CoinMarketCap*, <https://coinmarketcap.com/historical/20171231/>
- ²⁴ Stan Higgins, “From \$900 to \$20,000: Bitcoin’s Historic 2017 Price Run Revisited,” *CoinDesk*, December 29, 2017,

<https://www.coindesk.com/900-20000-bitcoins-historic-2017-price-run-revisited/>.

²⁵ Diego Zuluaga, “Should Cryptocurrencies Be Regulated like Securities,” *CMFA Briefing Paper No. 1*, Cato Institute, June 25, 2018, pp. 3-4, <https://object.cato.org/sites/cato.org/files/pubs/pdf/cmfa-briefing-paper-1-updated.pdf>.

²⁶ Alexandre.

²⁷ “The Future of Money: Digital Currency,” Hearing before the House Financial Services Committee Subcommittee on Monetary Policy and Trade, July 18, 2018, <https://www.c-span.org/video/?448611-1/house-panel-examines-digital-currency>.

²⁸ Nikhilesh De, Stan Higgins, and Muyao Shen, “SEC Rejects 9 Bitcoin ETF proposals,” CoinDesk, August 22, 2018, <https://www.coindesk.com/sec-rejects-7-bitcoin-etf-proposals>. Simon Chandler, “A Brief History of the SEC’s Reviews of Bitcoin ETF Proposals,” CoinTelegraph, April 1, 2019, <https://cointelegraph.com/news/a-brief-history-of-the-secs-reviews-of-bitcoin-etf-proposals>.

²⁹ Hester Peirce, Dissent to Release No. 34-83723; File No. SR-BatsBZX-2016-30, July 26, 2018, <https://www.sec.gov/news/public-statement/peirce-dissent-34-83723>.

³⁰ Securities and Exchange Commission, “Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934: The DAO,” Release No. 81207, July 25, 2017, <https://www.sec.gov/litigation/investreport/34-81207.pdf>.

³¹ C. Thea Pitzten, “SEC Issues Warning on Token and Digital Currency Use,” American Bar Association, January 4, 2018, <https://www.americanbar.org/groups/litigation/publications/litigation-news/top-stories/2018/sec-issues-warning-token-digital-currency-use/>.

³² Samuel Falcon, “The Story of the DAO—Its History and Consequences,” Medium, December 24, 2017, <https://medium.com/swlh/the-story-of-the-dao-its-history-and-consequences-71e6a8a551ee>.

³³ Katherine Cooper, “SEC Munchee Order a Recipe for Securities Violations,” CoinDesk, December 22, 2017, <https://www.coindesk.com/secs-munchee-order-recipe-securities-law-violations>.

³⁴ Stan Higgins, “SEC Chief Clayton: Every ICO I’ve Seen Is a Security,” CoinDesk, February 6, 2018, <https://www.coindesk.com/sec-chief-clayton-every-ico-ive-seen-security>.

³⁵ C. Edward Kelso, “Hundreds of ICOs Being Secretly Investigated by SEC, Claims Report,” Bitcoin.com, October 9, 2018, <https://news.bitcoin.com/hundreds-of-icos-being-secretly-investigated-by-sec-claims-report/>

³⁶ John Berlau, “Let Middle-Class Investors Join ‘Accredited’ Club,” Forbes.com, August 27, 2018, <https://www.forbes.com/sites/johnberlau/2018/08/27/let-middle-class-investors-join-the-accredited-club/#697411946416>.

³⁷ George Gilder, *Life After Google* (Washington, DC: Regnery Gateway, 2018), p. 181.

³⁸ Jeffrey E. Alberts and Bertrand Fry, “Is Bitcoin a Security,” Trustees of Boston University, https://www.bu.edu/jostl/files/2016/01/21.1_Alberts_Final_web.pdf.

³⁹ *Ibid.* Zuluaga. Paul Paray, “No, Not All ICOs Are Securities,” Coindesk, February 18, 2018, <https://www.coindesk.com/no-not-icos-securities>.

⁴⁰ William Hinman, “Digital Asset Transactions: When Howey Met Gary,” Speech at Yahoo Finance All Markets Summit: Crypto, Securities and Exchange Commission, June 14, 2018, <https://www.sec.gov/news/speech/speech-hinman-061418>.

⁴¹ Letter from Securities and Exchange Commission Chairman Jay Clayton to Representative Ted Budd, March, 7, 2019, <https://coincenter.org/files/2019-03/clayton-token-response.pdf>.

⁴² Chitra Ragavan, “How a 1920s Florida Citrus Land Baron Created the Acid Test for Crypto Tokens,” Forbes.com, November 14, 2017, <https://medium.com/swlh/the-story-of-the-dao-its-history-and-consequences-71e6a8a551ee>. <https://www.forbes.com/sites/chitraragavan/2017/11/14/how-a-1920s-florida-citrus-land-baron-created-the-acid-test-for-crypto-tokens/#9b7b47c4a3c4>.

⁴³ *SEC v. Howey*, 328 U.S. 293, <https://www.law.cornell.edu/supremecourt/text/328/293>.

⁴⁴ *Ibid.*

⁴⁵ *Ibid.*

⁴⁶ Alberts and Fry, “Is Bitcoin a Security?” https://www.bu.edu/jostl/files/2016/01/21.1_Alberts_Final_web.pdf

⁴⁷ Letter (“Wells Submission”) from Kik Interactive, Inc., and the Kin Ecosystem Foundation to the Securities and Exchange Commission, December 10, 2018, p. 2, http://kinecosystem.org/wells_response.pdf.

⁴⁸ *Ibid.*, p. 14.

⁴⁹ *Ibid.*

⁵⁰ *Ibid.*, p. 17, citing *Warfield v. Alaniz*, 569 F.3d 1015, 1021.

⁵¹ “Framework for ‘Investment Contracts’ Analysis of Digital Assets,” Securities and Exchange Commission, April 3, 2019, <https://www.sec.gov/corpfin/framework-investment-contract-analysis-digital-assets>.

⁵² Telephone Interview with Georgia Quinn, April 5, 2019.

⁵³ The guidance can be considered what CEI’s Wayne Crews has termed “regulatory dark matter,” defined as agency issuances that are not officially “rules” but nevertheless carry regulatory weight. Clyde Wayne Crews, “Mapping Washington’s Lawlessness: An Inventory of Regulatory Dark Matter 2017 Edition,” Issue Analysis 2017 No. 4, Competitive Enterprise Institute, March 2017, <https://cei.org/content/mapping-washington%E2%80%99s-lawlessness-2017>.

⁵⁴ Framework, p. 11.

⁵⁵ Quinn.

⁵⁶ Jonathan V. Last, “The Crash of 1993,” *Weekly Standard*, June 13, 2011, <https://www.weeklystandard.com/jonathan-v-last/the-crash-of-1993>.

⁵⁷ “Virtual Currency: Financial Innovation and National Security Implications,” Hearing before House Financial Services Committee Subcommittee on Terrorism and Illicit Finance, June 8, 2017, p. 29 (Q&A with Rep. Warren Davidson questioning witness Jerry Brito), <https://financialservices.house.gov/uploadedfiles/115-22.pdf>.

⁵⁸ Emily Parker and Joseph Rago, Eds., “Friedman’s Sampler,” *Wall Street Journal*, November 18, 2006, <https://www.wsj.com/articles/SB122522361412777111>.