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HOW TO REGULATE BLOCKCHAIN'S REAL-LIFE APPLICATIONS: LESSONS FROM THE CALIFORNIA BLOCKCHAIN WORKING GROUP

Michele Benedetto Neitz*

ABSTRACT: How should legislators write a law regulating a brand-new technology that they may not yet fully understand? With the advent of blockchain and other advanced computational technologies, this generation of legislators faces more complex questions than their predecessors.

Drawing on the author's experience as a member of California's Blockchain Working Group, this Article offers guidance to lawmakers, lawyers, and industry leaders seeking to draft effective laws regulating real-life applications of blockchain technology. This cutting-edge Article will do two things for its readers: (1) encourage them to be informed participants in conversations relating to federal and state blockchain regulation, and (2) offer a snapshot of these regulatory processes early in the development of blockchain technology, which will prove to be useful in coming years. Blockchain technology and its applications will continue developing quickly, regardless of how governments frame regulation. Everyone—including industry players, members of the public, and governments themselves—will benefit if lawmakers can strike the right balance between innovation and public protection.

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How should legislators write a law regulating applications of a brand-new technology, one that they may not yet fully understand? Past generations of legislators faced this conundrum in the context of telephones and the internet.¹ With the advent of blockchain and other advanced computational technologies, this generation of legislators faces more complex questions than their predecessors.²

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1. See generally EV EHRlich, PROGRESSIVE POL'Y INST., A BRIEF HISTORY OF INTERNET REGULATION (2014), https://www.progressivepolicy.org/wp-content/uploads/2014/03/2014.03-Ehrlich_A-Brief-History-of-Internet-Regulation.pdf [<https://perma.cc/RZ93-T2NL>] (discussing the 30-year history of internet regulation).

2. See *Why Blockchain Is Growing Faster than the Internet*, TELEGRAPH (Nov. 23, 2018, 3:45 PM), <https://www.telegraph.co.uk/money/cryptocurrency-explained/blockchain-growing-faster-than-internet/> [<https://perma.cc/GE75-JGL7>] (advertising feature from eToro) (“In only 10 years of

Blockchain technology is moving quickly, and federal and state legislators are struggling to effectively write laws balancing the promotion of innovation and the protection of public interests.

Blockchain technology's potential applications reach far and wide, with use cases developing in both the public and private sector.³ A blockchain is a distributed ledger, providing a record of transactions that is both distributed and nearly immutable.⁴ These two fundamental characteristics of blockchain are both simple and revolutionary. The distributed nature of a blockchain ledger means no central point of failure exists.⁵ This leads to a system without the traditional need for trusted third parties, since "a person can trust the validity of transactions without needing to rely on the integrity of intermediaries such as banks or governments."⁶

A blockchain ledger is practically immutable, meaning that once a transaction is written into the blockchain, it is computationally impractical to reverse that record.⁷ This is the real power of distributed ledger technology, as it does not require third party verification to ensure that ledgers cannot be changed or manipulated.⁸

Blockchains can exist in many variations, with different purposes and different technical attributes and governance. Permissionless blockchains are fully open, with anyone in the world able to participate.⁹ Permissioned blockchains, such as those used by financial institutions, restrict participation to those who are authorized to participate.¹⁰ The public may or may not be able to read information on permissioned blockchains, depending on the organization's preference.¹¹ Consortium blockchains lie in the middle; they can be created by a group

existence, [blockchain's speed of development] is at the level that the internet was after 35 or so years.").

3. A "use case" is a practical application of the technology. *Use Case*, TECHOPEDIA, <https://www.techopedia.com/definition/25813/use-case> [<https://perma.cc/A35T-SVFR>]; see also *Use Cases*, USABILITY.GOV, <https://www.usability.gov/how-to-and-tools/methods/use-cases.html> [<https://www.usability.gov/how-to-and-tools/methods/use-cases.html>]. For examples, see CAL. BLOCKCHAIN WORKING GRP., BLOCKCHAIN IN CALIFORNIA: A ROADMAP 14 (2020), <https://www.govops.ca.gov/wp-content/uploads/sites/11/2020/07/BWG-Final-Report-2020-July1.pdf>.

4. *Id.* at 36.

5. *Why Blockchain Is Perfect for Securing Our Expanding Online World*, MEDIUM (Feb. 9, 2018), <https://medium.com/polyswarm/why-blockchain-is-perfect-for-securing-our-expanding-online-world-971101ca7991> [<https://perma.cc/GCF6-JNGH>].

6. Michele Benedetto Neitz, *The Influencers: Facebook's Libra, Public Blockchains, and the Ethical Considerations of Centralization*, 21 N.C. J.L. & TECH. 41, 47 (2019) (citing Kevin Werbach, *Trust, but Verify: Why Blockchain Needs the Law*, 33 BERKELEY TECH. L.J. 489, 528–29 (2018)).

7. CAL. BLOCKCHAIN WORKING GRP., *supra* note 3, at 50.

8. *See id.*

9. Permissionless blockchains are also called "public" blockchains. Bitcoin's blockchain is the most famous example. See Carla L. Reyes, *Conceptualizing Cryptolaw*, 96 NEB. L. REV. 384, 390–91 n. 29 (2017) (Permissionless blockchains are "open-source . . . generally public ledgers, open for anyone to inspect," while permissioned blockchains "are developed and used on a proprietary basis and are often not public.").

10. Vitalik Buterin, *On Public and Private Blockchains*, ETHEREUM BLOG (Aug. 7, 2015), <https://blog.ethereum.org/2015/08/07/on-public-and-private-blockchains/> [<https://perma.cc/4ZP3-Q957>].

11. *See id.*

of administrators with varying levels of participation and read access, and can be considered “partially” decentralized.¹²

Most observers first heard of blockchain technology as it relates to virtual currency, such as Bitcoin.¹³ This is the first and most ubiquitous use case for this technology. But numerous other use cases are developing as blockchain technology becomes more sophisticated. For example, blockchain is being used in industries as diverse as refugee services,¹⁴ real estate titles,¹⁵ retail supply chains,¹⁶ and even in the fight against the COVID-19 pandemic.¹⁷ While Bitcoin may still be the most famous blockchain use case, blockchain actually has the potential to revolutionize many aspects of daily life.¹⁸ Governments are adopting blockchain technology to streamline their operations, entrepreneurs are experimenting with blockchain technology in a wide variety of areas, and corporate organizations are “more committed than ever to blockchain” as they implement it throughout the business sector.¹⁹ For this reason, jurisdictions throughout the world are seeking a way to regulate this new and complicated subject.²⁰

Drawing on the author’s experience as a member of California’s Blockchain Working Group, this Article offers guidance to lawmakers, lawyers, and

12. *Id.* Hyperledger is an example of a successful consortium blockchain. See HYPERLEDGER.ORG, <https://www.hyperledger.org/> [https://perma.cc/KTA2-X8UX].

13. See James J. Park & Howard H. Park, *Regulation by Selective Enforcement: The SEC and Initial Coin Offerings*, 61 WASH. U. J.L. & POL’Y 99, 106 (2020).

14. See, e.g., Jessi Hempel, *How Refugees Are Helping Create Blockchain's Brand New World*, WIRED (Mar. 14, 2018, 7:00 AM), <https://www.wired.com/story/refugees-but-on-the-blockchain/> [https://perma.cc/A48X-RZF4].

15. See, e.g., Wes Williams et al., *TitleToken: The Transformation of Title Insurance: How Blockchain Technology and Tokenization Will Change the Business of Title Insurance in the Future*, MEDIUM (June 12, 2019), <https://medium.com/@ubitquity/the-transformation-of-title-insurance-ec081e9895b2> [https://perma.cc/DT28-5JAC].

16. See, e.g., Vishal Gaur & Abhinav Gaiha, *Building a Transparent Supply Chain*, HARV. BUS. REV. (May–June 2020), <https://hbr.org/2020/05/building-a-transparent-supply-chain> [https://perma.cc/GF3W-EA33].

17. See, e.g., Oluwatobi Joel, *How Blockchain Technology Can Help Fighting Against COVID-19*, COINTELEGRAPH (June 7, 2020), <https://cointelegraph.com/news/how-blockchain-tech-nology-can-help-fighting-against-covid-19> [https://perma.cc/ECC8-8T29].

18. For example, the California Blockchain Working Group examined blockchain applications in the following areas: vital records, health records, supply chain, property, utilities and natural resources, finance, payments, commercial business, civic participation, and education and workforce. CAL. BLOCKCHAIN WORKING GRP., *supra* note 3, at 6–11.

19. DELOITTE, DELOITTE’S 2020 GLOBAL BLOCKCHAIN SURVEY: FROM PROMISE TO REALITY 2 (2020), https://www2.deloitte.com/content/dam/insights/us/articles/6608_2020-global-blockchain-survey/DI_CIR%202020%20global%20blockchain%20survey.pdf.

20. While this Article focuses on regulation in the United States, it is worth noting that some observers believe a global regulatory framework would be more effective. One CTO of a blockchain company recently argued that “since blockchain assets are truly global assets, they need a global regulatory standard and not a jurisdictional standard.” Craig Adeyanju, *Ball’s in Their Court: Crypto Custodians Waiting on Regulators to Act*, COINTELEGRAPH (June 6, 2020), <https://cointelegraph.com/news/balls-in-their-court-crypto-custodians-waiting-on-regulators-to-act> [https://perma.cc/3B DW-BCEC].

industry leaders seeking to draft effective laws regulating applications of blockchain technology. The Article focuses on regulation of financial assets created by or facilitated by blockchains, including cryptocurrencies and other types of digital assets.

Part I explains why blockchain and crypto-related laws are necessary but also more difficult to draft and pass than laws regulating less technical industries. Blockchain's use cases, especially digital assets, present regulatory challenges because of their fast pace of development and high learning curve; indeed, it is hard to determine where oversight should exist for something that does not even have a common legislative definition. Part II recommends five factors state and federal legislators should consider as they embark on drafting or amending these laws, including (1) policy decisions, (2) ethical considerations, (3) transparency, (4) interjurisdictional competition, and (5) uniformity.

Part III then considers whether these factors exist in current legislative efforts by summarizing the existing federal statutory and regulatory structure. This Part uses the Cryptocurrency Act of 2020,²¹ a federal bill proposed in early 2020, as a case study in legislative failure.

Part IV turns the lens to state legislative efforts. Using Aesop's fable, "The Hare and the Tortoise" as an analogy, this Part analyzes methods used by three states who were among the first to regulate blockchain technology in the United States: California (the "tortoise" approach), Wyoming (the "hare" approach), and New York (the "boomerang" approach). Regardless of a jurisdiction's ultimate approach to regulation, blockchain laws and regulations must be dynamic enough to adapt to this constantly evolving technology.²²

I. WHY ARE BLOCKCHAIN LAWS SO DIFFICULT TO DRAFT?

It can require an intricate dance to draft and pass any type of legislation, and it is especially difficult to prevent bills from becoming unduly complicated. One legendary story from the 1950s recalls a businessman who was charged with violating a complex regulation related to price setting. When the defendant "betrayed some unfamiliarity with the regulation, the judge asked him whether he had ever read it. The defendant replied indignantly, 'Read it, Judge? I can't even lift it!'"²³

While "lifting" laws written on paper is no longer an issue in the digital age, the truth is that our lawmaking process is no less difficult than it was seventy-five years ago. In many ways, it is more demanding for legislators than it used

21. H.R. 6154, 116th Cong. (2020).

22. EHRLICH, *supra* note 1, at 17 ("[T]echnology constantly changes, and regulations and procedures that are premised on a set of technological 'facts' may be severely challenged when those facts change.").

23. Reed Dickerson, *How to Write a Law*, 31 NOTRE DAME L. REV. 14, 22–23 (1955).

to be.²⁴ As technology develops quickly, modern lawmakers must learn at a furious pace just to comprehend the technology they are tasked with regulating. In this way, the high learning curve of blockchain technology presents a challenge for lawyers, legislators, and others who do not have technical expertise.

This Part will explain why regulation of blockchain-enabled applications is needed. It will also identify several reasons why drafting laws relating to this new technology can be a heavy lift for lawmakers.

A. Why Create Laws Related to Blockchain Technology?

1. Protecting the Public from Harm

Blockchain technology is a complicated field, and innovation in this space is developing rapidly. This innovation will occur regardless of a legislature's reluctance or willingness to draft laws to regulate this industry. As state and federal legislators are struggling to define a regulatory scheme, members of the public who are excited about the possibilities of investing in something new like digital assets may suffer from harm.

This has, of course, already happened in various ways. In a recent high-profile example, members of the public were invited to invest in initial coin offerings (ICOs), buying tokens as a way to invest in start-up companies.²⁵ One study reported that approximately 78 percent of the ICOs offered in 2017 were actually scams.²⁶ In the United States, 33 percent of ICO investors believe that ICO operators "deceived them or withheld information from them."²⁷ The ICO market significantly cooled as federal prosecutors and the SEC began aggressively taking action against leaders of fraudulent ICOs, demonstrating how regulatory enforcement can indeed protect investors from harm.²⁸

24. Even if one disregards today's polarized political climate, "[s]mall bureaucratic distinctions add hurdles to any legislative action, slowing down or even stifling the passage of lower-priority bills." Danny Nelson, *Blockchain Bills Are Advancing in the New York State Senate—Here's Why*, COINDESK (Feb 14, 2020 5:00 AM), <https://www.coindesk.com/blockchain-bills-are-advancing-in-the-new-york-state-senate-heres-why> [<https://perma.cc/CE4R-B7XH>].

25. Jonathan Chester, *Can Your Startup Run an Initial Coin Offering? Yes, and Here's How.*, FORBES (Feb 28, 2018), <https://www.forbes.com/sites/jonathanchester/2018/02/28/can-my-startup-run-an-initial-coin-offering/?sh=51e4cd345a30> [<https://perma.cc/QBN4-ZCUF>].

26. Sherwin Dowlat, Satis Grp., *Cryptoasset Market Coverage Initiation: Network Creation*, BLOOMBERG PRO. SERVS. 24 (July 11, 2018), https://research.bloomberg.com/pub/res/d28giW28tf6G7T_Wr77aU0gDgFQ [<https://perma.cc/YRS4-T4EH>].

27. *ICO Investor Sentiment and Outlook Review 2020*, XANGLE (Nov. 30, 2020), [https://s3.amazonaws.com/upload.xangle.io/files/xangle_research/20201130_xangle_\(EN\).pdf](https://s3.amazonaws.com/upload.xangle.io/files/xangle_research/20201130_xangle_(EN).pdf) [<https://perma.cc/7838-4JPN>].

28. Indeed, some ICO scammers are now serving time in prison. See, e.g., Mohammad Musharraf, *Crypto Founder Sentenced to Seven Years in Prison for \$25 Million Scam*, COINTELEGRAPH (June 17, 2020), <https://cointelegraph.com/news/crypto-founder-sentenced-to-seven-years-in-prison-for-25-million-scam> [https://web.archive.org/web/20201202024301if_/https://cointelegraph.com/news/crypto-founder-sentenced-to-seven-years-in-prison-for-25-million-scam]; Christian Berthelsen, *Crypto Firm Co-Founder Gets Year in Prison Over Debit Card Scam*, BLOOMBERG (Dec. 15, 2020), <https://www.bloomberg.com/news/articles/2020-12-15/crypto-firm-co-founder-gets-year-in-prison-over-debit-card-scam> [<https://perma.cc/BNJ7-LCDB>]; see also Park & Park, *supra* note 13, at 106–07.

However, cryptocurrency scams are persisting beyond the ICO craze. The FTC recently warned the public that scammers are continually finding new ways to “trick people.”²⁹ Members of the public are clearly at risk of a multitude of foreseeable—and unforeseeable—problems as applications of this technology develop, including fraudulent investments, breaches of privacy on blockchain platforms, digital identity theft, and insufficient data protection. Given these threats to the public, it is not appropriate for regulators to dawdle as blockchain applications continue to rapidly advance.

2. *Attracting Innovation*

While they work to protect the public, legislators and regulators can also use laws to signal their commitment to attracting blockchain-related companies to their locations. Some jurisdictions, including countries like Estonia and Switzerland³⁰ and U.S. states like Wyoming,³¹ have already implemented regulatory schemes designed to win the interjurisdictional competition for blockchain business.³²

The resulting tension between protecting the public while promoting innovation lies at the heart of regulating digital assets and other applications of blockchain technology, as discussed in more detail in Section III.A. Despite the need for blockchain-related regulation, numerous challenges exist for lawmakers seeking to draft laws in this area—starting with the fact that the word “blockchain” does not have a commonly understood definition.

B. The Legislative Definition Problem

What is the legal definition of blockchain? This simple question has proved to be exceedingly difficult to answer. States considering blockchain legislation have focused on different characteristics of this new technology, meaning that “[d]efinitions in legislation introduced in 2018 in California, Florida, Nebraska and Tennessee differ[ed] from those of industry groups and from each other.”³³ In some cases, the definitions were in conflict.³⁴ These inconsistent definitions

29. See Cristina Miranda, *Avoiding a Cryptocurrency Scam*, FED. TRADE COMM’N CONSUMER INFO. (July 16, 2020), <https://www.consumer.ftc.gov/blog/2020/07/avoiding-cryptocurrency-scam> [<https://perma.cc/3K2M-ELJK>].

30. Although a full discussion of international law is beyond the scope of this Article, blockchain’s global scale means that numerous countries around the world are adopting laws related to this technology. This is particularly true in the area of cryptocurrency. See generally Bart Custers & Lara Overwater, *Regulating Initial Coin Offerings and Cryptocurrencies: A Comparison of Different Approaches in Nine Jurisdictions Worldwide*, 10 EUR. J.L. & TECH. (2019), <https://ejlt.org/index.php/ejlt/article/view/718/977> [<https://perma.cc/7Y9P-4VHH>].

31. See *infra* Section IV.B.

32. For more about this competition, see *infra* Section II.D.

33. UNIF. L. COMM’N, GUIDANCE NOTE REGARDING THE RELATION BETWEEN THE UNIFORM ELECTRONIC TRANSACTIONS ACT AND THE FEDERAL E-SIGN ACT, BLOCKCHAIN TECHNOLOGY AND “SMART CONTRACTS” 7 (Jan. 2019), <https://www.uniformlaws.org/HigherLogic/System/DownloadDocumentFile.ashx?DocumentFileKey=d2026984-1040-3c6f-62c8-a676b12d7bff&forceDialog=0> [<https://perma.cc/B2SH-6JGX>].

34. *Id.*

are problematic, as they “actually introduce legal uncertainty where it did not previously exist, and invite unnecessary and expensive litigation.”³⁵

A clear definition of blockchain is necessary for legislative purposes as well, as it is required to help a jurisdiction create clear policies.³⁶ Moreover, a state’s definition should enable policymakers and the public to focus on “the most unique value that the technology can deliver. It should be accessible to and understandable by the public, and yet technically specific enough to ensure that the [jurisdiction] can reap maximum benefit.”³⁷ With such a high bar, legislators have understandably struggled to construct a working definition for this new technology.

The California Blockchain Working Group, after much discussion and debate, created a new definition of blockchain in 2020 for state legislative purposes:

“Blockchain” is a domain of technology used to build decentralized systems that increase the verifiability of data shared among a group of participants that may not necessarily have a pre-existing trust relationship.

Any such system must include one or more “distributed ledgers,” specialized datastores that provide a mathematically verifiable ordering of transactions recorded in the datastore. It may also include “smart contracts” that allow participants to automate pre-agreed business processes. These smart contracts are implemented by embedding software in transactions recorded in the datastore.³⁸

The New York Senate took a simpler approach, defining blockchain as “a mathematically secured, chronological, and decentralized consensus ledger or database, whether maintained via internet interaction, peer-to-peer network, or otherwise used to authenticate, record, share and synchronize transactions in their respective electronic ledgers or databases.”³⁹

Both of these definitions are technically correct, and they both reflect the policy decisions of their respective states. For example, California deliberately used the more flexible term “datastore,” instead of “record” or “log,” to reflect the verifiability of data shared amongst participants, the many use cases of this type of ledger, and the fact that many datastores could exist at once.⁴⁰

35. *Id.*

36. See Angela Walch, *The Path of the Blockchain Lexicon (and the Law)*, 36 REV. BANKING & FIN. L. 713, 729 (2017) (“How can regulators (or anyone else) even tell whether people are discussing the same topic or manifestation of technology when people explain the technology, its risks, and its potential benefits using divergent terminologies?”).

37. CAL. BLOCKCHAIN WORKING GRP., *supra* note 3, at 18.

38. *Id.*

39. S. 6037A, 2019–2020 Leg. (N.Y. 2019). The bill is now in the hands of the state Assembly. *Senate Bill S6037A*, N.Y. ST. SENATE (2019), <https://www.nysenate.gov/legislation/bills/2019/s6037> [<https://perma.cc/TDJ9-4P4G>].

40. See David Tennenhouse & Brian Behlendorf, CA Blockchain Working Grp., *Blockchain Definition and Foundational Building Blocks* (Dec. 5, 2019), <https://www.govops.ca.gov/wp-content/uploads/sites/11/2019/12/Blockchain-Definition-and-Foundational-Building-Blocks-Brian-Behlendorf-and-David-Tennenhouse.pdf> [<https://perma.cc/JA3Y-EFAS>].

One could argue that the lack of a uniform statutory definition is partly responsible for the patchwork nature of state blockchain regulation. After all, without a similar definition, it is nearly impossible to set policy goals and pass parallel legislation in multiple jurisdictions. However, the problem of inconsistent definitions is just the tip of the iceberg of interjurisdictional competition.⁴¹ This competition is unlikely to subside even if the federal government or the Uniform Law Commission enacted a well-accepted, standardized definition of blockchain technology.

C. The Fast Pace of Blockchain Technology Development

Law always moves slower than technology.⁴² This is partly because lawmakers and agencies can “struggle to capture emerging technologies in dusty regulatory frameworks.”⁴³ For example, securities laws drafted in the 1930s could not have anticipated the sale of digital assets.⁴⁴ Even more recently drafted laws and regulations relating to the Internet do not fit blockchain technology.⁴⁵ Lawmakers must decide whether to fit this revolutionary technology within existing legal frameworks or start all over with new legislative schemes.

The constantly evolving nature of blockchain technology presents another challenge. This “industry is in its early stages of maturation,” making it difficult to determine the initial policy choices that would lead to effective regulation.⁴⁶ There are also technical concerns still lurking within blockchain technology, such as locating the “weak points” that might be “gamed by bad actors,” which could give rise to unanticipated legal problems.⁴⁷

Finally, even at this early stage, lawmakers must consider which aspects of the technology are important enough to regulate. Some of these are obvious, such as cryptocurrency and other forms of digital assets that involve sales to members of the public. But even within this category, it is “still too early to tell exactly which of the drivers of digital asset excitement is dominant,” putting

41. See *infra* Section II.D (describing the interjurisdictional competition for blockchain technology).

42. Kollen Post, *Law Decoded: Regulators Are Guarded But Getting There*, July 3–10, COINTELEGRAPH (July 10, 2020), <https://cointelegraph.com/news/law-decoded-regulators-are-guarded-but-getting-there-july-3-10> [<https://perma.cc/VYN7-UW85>] (“Policy changes slowly. Crypto wants to move fast.”).

43. Recent Guidance, *Securities Regulation—Financial Technology—SEC Provides Analytical Tools for Assessing Digital Assets.—SEC, Framework for “Investment Contract” Analysis of Digital Assets (2019)*, 132 HARV. L. REV. 2418, 2420 (2019) [hereinafter Recent Guidance].

44. See John W. Bagby et al., *An Emerging Political Economy of the Blockchain: Enhancing Regulatory Opportunities*, 88 UMKC L. REV. 419, 456–67 (2019) (summarizing recent SEC cryptocurrency enforcement actions).

45. See Primavera De Filippi & Samer Hassan, *Blockchain Technology as a Regulatory Technology: From Code Is Law to Law Is Code*, 21 FIRST MONDAY (Dec. 2016), <https://firstmonday.org/ojs/index.php/fm/article/view/7113/5657> [<https://perma.cc/AFJ5-J89E>] (Blockchain technology “promotes a new way of thinking about the law.”).

46. Syren Johnstone, *Taxonomies of Digital Assets: Recursive or Progressive?*, 2 STAN. J. BLOCKCHAIN L. & POL’Y 78, 79 (2019).

47. *Id.*

“regulatory bodies in a tough position.”⁴⁸ In this way, the wide variety of blockchain projects and the speed at which they are developing creates an additional barrier to effective regulation.

As an example, imagine a developer creates a brand-new digital asset and offers it to the public. How should regulators approach the regulation of this asset? Should regulators first consider the substance of the project, its connection to a decentralized ledger, its effect on consumers' privacy and security, or its potential to evade anti-money laundering and “[k]now [y]our [c]ustomer” laws⁴⁹ (or all of the above)? An effective regulatory scheme would need to include rules that are flexible enough to manage future technical developments as well as today's technologies. Otherwise, laws may need to be reconsidered and amended whenever a new technical application emerges.

D. Blockchain Technology's High Learning Curve for Lawmakers

Blockchain technology can be complicated and intimidating, and few lawmakers have training in computer science. A 2016 survey found only that only four of the 535 members of Congress had formal computer science degrees.⁵⁰ While the technical aspects of blockchain can be difficult to explain, most legislators can learn enough to understand the fundamentals.⁵¹

New York's State Senate offers a case in point. The Senate's technical advisor reported that in 2019, “staffers and senators asked basic questions about blockchain and distributed ledger technology, prompting [the technical advisor] to develop an explainer presentation.”⁵² One year later, in 2020, many of the senators “appear more comfortable with the technology, which helps them see the value of [potential] legislation.”⁵³

Legislators need not dive into minor technical details of blockchain to be able to regulate it. It is more important for legislators to focus on the function of blockchain and its practical applications, asking not “what is blockchain?” but

48. M. Todd Henderson & Max Raskin, *A Regulatory Classification of Digital Assets: Toward an Operational Howey Test for Cryptocurrencies, ICOs, and Other Digital Assets*, 2019 COLUM. BUS. L. REV. 443, 448 (2019).

49. See Craig Adayanju, *What Crypto Exchanges Do to Comply With KYC, AML and CFT Regulations*, COINTELEGRAPH (May 17, 2019), <https://cointelegraph.com/news/what-crypto-exchanges-do-to-comply-with-kyc-aml-and-cft-regulations> [<https://perma.cc/WHD6-QN4Q>] (Regulators want to ensure that crypto exchanges “discourage illicit transactions and improve account/wallet security.”).

50. Andy Meek, *We Asked Every Member of Congress with a Computer Science Degree About Apple's War with the FBI*, BGR (Mar. 23, 2016, 10:19 AM), <https://bgr.com/2016/03/23/apple-vs-fbi-congress-interviews/> [<https://perma.cc/S4X7-R4JD>].

51. Regulators must, at a minimum, fully comprehend “the risks posed by the technology” or they will be “more likely to make bad decisions about whether and how to regulate.” Walch, *supra* note 36, at 729.

52. Nelson, *supra* note 24.

53. *Id.*

“what can blockchain do?”⁵⁴ Policymakers should focus on the use cases of blockchain, rather than its underlying technology.⁵⁵

Professor Angela Walch offered prescriptive recommendations for regulators learning about blockchain, advising them to cultivate their expertise (including self-education), consult with other regulators, follow the activity of standards organizations and academia, and “[w]atch and [l]earn” as the technology stabilizes.⁵⁶ Professor Walch also counsels lawmakers to “[a]dopt a [c]ritical [m]indset” in this educational process, to ensure they are not unduly influenced by hype or unreliable sources.⁵⁷

Legislators could also learn more about blockchain through the use of legislative working groups or task forces. For example, California’s Blockchain Working Group drafted a report in accessible language, enabling state legislators to learn more about the technology and its potential applications for California in one comprehensive document.⁵⁸ The federal government has tried to follow this path. In 2019, a bipartisan group of senators proposed a bill directing the Secretary of Commerce to establish a federal Blockchain Working Group in 2019.⁵⁹ However, the bill, entitled the “Blockchain Promotion Act,” is still currently in committee.⁶⁰

As a law professor who taught the first Blockchain and the Law class in San Francisco, I can anecdotally report that blockchain and cryptocurrencies are not easy concepts for nontechnical learners to grasp. However, over the course of one semester, my law students (most of whom did not have any technical training beforehand) were able to draft final reports and presentations not just describing the technology, but also analyzing the use cases deploying the technology. With a bit of time and effort, state and federal lawmakers can understand the potential for blockchain to transform their jurisdictions.

II. FIVE FACTORS FOR LEGISLATIVE CONSIDERATION

In light of the difficult nature of regulating blockchain, this Part offers five factors lawmakers should consider as they work to draft blockchain and crypto regulation.

54. J.P. Schmidt & Tung Chan, *The Future Infrastructure of Business: A Primer on Blockchain and the Evolving Regulations*, 13 HAW. B.J., Apr. 2020, at *13, *13, Westlaw. Of course, legislators must understand enough to be able to distinguish blockchain from other technologies.

55. Jason Albert, *What’s Next for Blockchain: Technology, Economics and Regulation*, MICROSOFT: EU POLICY BLOG (June 20 2016), <https://blogs.microsoft.com/eupolicy/2016/06/20/whats-next-for-blockchain-technology-economics-and-regulation/> [<https://perma.cc/QNZ4-ASB3>].

56. Walch, *supra* note 36, at 746–52.

57. *Id.* at 753–59. This could include lobbyists. See *infra* Section III.B (discussing industry influence on the Cryptocurrency Act of 2020).

58. See CAL. BLOCKCHAIN WORKING GRP., *supra* note 3, at 2, 18.

59. See generally H.R. 1361, 116th Congress (2019).

60. *Id.*

A. Policy Decision: Innovation vs. Protecting the Public Interest

In an ideal world, governments would be able to promote both innovation and the public interest. In reality, however, legislators usually need to debate and choose whether they will prioritize innovative technological development or consumer/public protection. This is especially true in the context of blockchain, since the public perception of blockchain varies widely. Many members of the public first heard of blockchain through Bitcoin, the digital currency. But early illegal use cases of blockchain technology also made headlines, including the infamous Silk Road darknet marketplace⁶¹ and repeated cases of fraudulent theft through Initial Coin Offerings.⁶² While the technology is neutral, blockchain can be used in malicious ways that harm the public.⁶³ Even well-meaning technology can implicate privacy and data protection concerns.⁶⁴

It is therefore “essential for both the industry and society that consumers and the capital market are protected from abuse.”⁶⁵ No state or federal jurisdiction should enable blockchain technology to develop without guardrails to protect the public. The question is where those guardrails should lie. If states wait too long to regulate, the public may be harmed, and the costs of imposing requirements on industries that have already been established will be too great. However, if states develop restrictive regulations too early or the laws “become onerous,”⁶⁶ businesses will relocate to more friendly jurisdictions. States in this position risk killing off innovation or pushing it to other states.⁶⁷

Part of the reason blockchain technology's applications are so challenging to regulate is that it “is difficult, if not impossible, for regulators to construct a framework that achieves clear rules, market integrity, and financial innovation.”⁶⁸ This complex question explains the spirit of experimentation among states discussed in Part V, with some choosing restrictive regulatory structures, some choosing permissive approaches, and others choosing the middle. Regard-

61. See generally IG Analyst, *The Silk Road to Bitcoin: Has the Crypto Escaped its Dark Past?*, IG (Feb. 5, 2018, 9:58 PM), <https://www.ig.com/au/trading-opportunities/the-silk-road-to-bitcoin--has-the-crypto-escaped-its-dark-past--41990-180205> [<https://perma.cc/8C48-THVR>].

62. One study reported that nearly 80 percent of initial coin offerings in 2017 were scams. Ana Alexandre, *New Study Says 80 Percent of ICOs Conducted in 2017 Were Scams*, COINTELEGRAPH (July 13, 2018), <https://cointelegraph.com/news/new-study-says-80-percent-of-icos-conducted-in-2017-were-scams> [<https://perma.cc/MB79-4T77>].

63. Neitz, *supra* note 6.

64. CAL. BLOCKCHAIN WORKING GRP., *supra* note 3, at v.

65. Johnstone, *supra* note 46.

66. Michael J. O'Connor, *Overreaching Its Mandate? Considering the SEC's Authority to Regulate Cryptocurrency Exchanges*, 11 DREXEL L. REV. 539, 595 (2019).

67. Blockchain businesses will move for regulatory reasons. See Daniel Kuhn, *The Cryptocurrency Act of 2020 Is 'Dead on Arrival,' Washington Tells Sponsors*, COINDESK (Mar. 11, 2020, 1:19 P.M.), <https://www.coindesk.com/the-cryptocurrency-act-of-2020-is-dead-on-arrival-washington-dc-tells-sponsors> [<https://perma.cc/AP8X-KULR>] (“Many projects are simply choosing to move elsewhere” because of regulatory uncertainty.).

68. Park & Park, *supra* note 13, at 101 n.16 (citing Chris Brummer & Yesha Yadav, *Fintech and the Innovation Trilemma*, 107 GEO. L.J. 235 (2019)).

less of a jurisdiction's ultimate direction, legislators drafting blockchain legislation must evaluate how to protect the public while encouraging creative technological development.

B. Ethical Considerations

California was the first (and so far, the only) state to consider ethical considerations in the early stages of regulation. This author published the first law review article analyzing ethics in the blockchain industry in December 2019,⁶⁹ and also served as the primary drafter of the Ethical Considerations section in California's Blockchain Working Group report.⁷⁰

Depending on the type of blockchain at issue, numerous ethical issues may come up for regulators. For example, the increasing centralization of permissionless blockchains and the rise of permissioned blockchains may raise concerns about personal ethics, such as bias and conflicts of interest. As trends suggest that governance of blockchain systems is moving toward centralization,⁷¹ individuals may have power to influence decisions made on that blockchain. If so, there is a potential for that individual's bias and conflicts of interest to come into play.⁷²

Although ethical discussions around blockchain appear slower to develop than the technology itself, several paradigms have been put forth advocating ethical considerations in this industry.⁷³ For example, the World Economic Forum recently asked participants and policymakers to sign on to its "Presidio Principles," an agreement to consider transparency and accessibility, agency and interoperability, privacy and security, and accountability and governance.⁷⁴ MIT's Digital Currency Initiative included the topic of blockchain ethics at its 2019 "Cryptoeconomics Systems Summit."⁷⁵

69. Neitz, *supra* note 6, at 41.

70. CAL. BLOCKCHAIN WORKING GRP., *supra* note 3, at i.

71. For a detailed discussion of this phenomenon, see Neitz, *supra* note 6, at 48–49.

72. For example, the recent decisions of the Ethereum Foundation to implement a hard fork in response to the 2016 DAO hack, but not in response to the 2017 Parity smart contract bug, demonstrate the potential for a conflict of interest to affect the governance of blockchains. *Id.* at 49–51. Similar concerns exist with the development of Facebook's Libra (now rebranded as "Diem"). *Id.* at 53–57.

73. There are more ethical debates happening in the realm of artificial intelligence. See, e.g., Tim O'Brien et al., *How Global Tech Companies Can Champion Ethical AI*, WORLD ECON. F., <https://www.weforum.org/agenda/2020/01/tech-companies-ethics-responsible-ai-microsoft/> [<https://perma.cc/QTS3-RXP8>]; Brandie Nonnecke, *The New HR: Employing Equitable AI*, UC BERKELEY (July 2020) (recorded online lecture applying the FATTs principles to AI); Jessica Fjeld & Adam Nagy, *Principled Artificial Intelligence*, BERKMAN KLEIN CTR. FOR INTERNET & SOCIETY HARV. UNIV. (Jan. 15, 2020), <https://cyber.harvard.edu/publication/2020/principled-ai#:~:text=This%20effort%20uncovered%20a%20growing,and%20promotion%20of%20human%20values> [<https://perma.cc/T4BK-AQE3>].

74. *Presidio Principles: Foundational Values for a Decentralized Future*, WORLD ECON. F., (2020), <https://www.weforum.org/communities/presidio-principles> [<https://perma.cc/B78N-MG62>].

75. Mike Orcutt, *Why It's Time to Start Talking About Blockchain Ethics*, MIT TECH. REV. (Oct. 10, 2019), <https://www.technologyreview.com/2019/10/10/132652/why-its-time-to-start-talk>

In addition, the Beeck Center for Social Impact + Innovation at Georgetown University published the “Blockchain Ethical Design Framework,” with a focus on six “root issues”: “governance, identity, access, verification and authentication, ownership of data, and security.”⁷⁶ This structure more specifically applies to developers, and is not a code of conduct or a legislative model, but it reiterates the idea that “we all share the responsibility to . . . demand intentional ethical approaches in the design and application of data and technology for social good.”⁷⁷

California’s Blockchain Working Group considered ethical issues related to social impact, including fairness, equity, accessibility, trust and transparency, and sustainability.⁷⁸ The Group proposed an ethical framework for the adoption of blockchain technology that is directed toward lawmakers as well as industry players.⁷⁹ This framework encompasses three main principles:

- i. Address key ethical design goals
 - a) Seek societal benefit: Maximize good and minimize bad.
 - b) Equity: Does this benefit all Californians, or only a few?
 - c) Efficiency and effectiveness: How can we achieve ethical design and use cases without slowing innovation?
- ii. Consider ethical uses of blockchain technology
 - a) Fairness: Is this technology designed and deployed in a fair, nondiscriminatory manner?
 - b) Accessibility: Design to include the most vulnerable user.
 - c) Responsibility: Anticipate and design for all possible uses.
 - d) Sustainability: Create technology to advance sustainability, public health, and corporate social responsibility.
- iii. Minimize unintended consequences
 - a) Are there unintended biases or conflicts in the design or use of this technology?⁸⁰

ing-about-blockchain-ethics/ [https://perma.cc/D3ML-5AST]. The head of the MIT Digital Currency Initiative, Rhys Lindmark, noted that “[i]f blockchain technology can be reasonably expected to make a significant difference in society, then it deserves its own field of ethics, just like biotechnology, artificial intelligence, and nuclear technology.” *Id.*

76. Cara Lapointe & Lara Fishbane, *The Blockchain Ethical Design Framework*, BEECK CTR. FOR SOC. IMPACT + INNOVATION, <http://beeckcenter.georgetown.edu/wp-content/uploads/2018/06/The-Blockchain-Ethical-Design-Framework.pdf> [https://perma.cc/3FFE-8KLZ].

77. *Id.*; see also Yong Tang et al., *Ethics of Blockchain: A Framework of Technology, Applications, Impacts, and Research Directions*, 33 INFO. TECH. & PEOPLE 602, 602 (2020) (offering a “systematic study on the ethics of blockchain, mapping its main socio-technical challenges in technology and applications”).

78. CAL. BLOCKCHAIN WORKING GRP., *supra* note 3, at 28–30.

79. *Id.* at 23–57.

80. Lawmakers should always be considering the possibility of implicit bias in their legislative discussions and drafting. See Justin D. Levinson & Robert J. Smith, *Systemic Implicit Bias*, 126 YALE L.J. FORUM 406, 414 (2017) (“Systemic implicit bias can influence how policymakers choose between punitive and preventative frameworks for addressing social problems.”); see also Michele Benedetto Neitz, *Socioeconomic Bias in the Judiciary*, 61 CLEV. ST. L. REV. 137, 137 (2013) (discussing implicit bias on the part of judges).

- b) Are any populations being unintentionally harmed by the way this technology is developing?
- c) Does this technology promote violations of local, national, or international law?⁸¹

This useful framework offers guidance to regulators seeking to make sure they do not inadvertently violate ethical considerations, especially with hastily drafted legislation. Two examples illustrate the usefulness of this approach. First, it could be relatively easy to create a certification process for blockchain developers who provide services to the State of California. But will that certification process limit approval to developers with degrees from elite institutions? This type of action would raise equity concerns, as the blockchain industry should be working more toward diversity in gender, cultural backgrounds, and perspectives of industry participants. Second, could companies who advance environmentally sustainable blockchain development receive tax credits from the state? Although different jurisdictions may embrace different ethical principles, legislators should discuss these issues as they contemplate ways to regulate this new technology.

C. Transparency

Since “the rule of law requires transparency,”⁸² jurisdictions in the United States are governed by transparency laws. The federal government’s administrative agencies must abide by the Administrative Procedure Act, which (among other things) orders federal agencies to act “transparently and fairly.”⁸³ California’s Bagley-Keene Act requires state boards or commissions (including working groups) to “publicly notice their meetings, prepare agendas, accept public testimony and conduct their meetings in public unless specifically authorized to meet in closed session.”⁸⁴

Legislators are likely already aware of the government transparency laws in their jurisdiction, but there are other reasons transparency is especially important in the context of blockchain regulation. First, all stakeholders should be given the opportunity to weigh in on laws governing this nascent industry.⁸⁵ The industry players on the front line have valuable perspectives to share with legislators, and input from various stakeholders will create more efficient regulation. Moreover, the technology is moving quickly, and there may be applications of blockchain in development that legislators do not even know about yet. As the Cryptocurrency Act of 2020 revealed,⁸⁶ drafting laws without the collaboration of diverse stakeholders is ineffective.

81. CAL. BLOCKCHAIN WORKING GRP., *supra* note 3, at 32.

82. Exec. Order No. 13892, 84 Fed. Reg. 55,239 (Oct. 15, 2019).

83. 5 U.S.C. 551 et seq. (2020).

84. *Open Meetings*, ST. CAL. DEP’T JUST., <https://oag.ca.gov/open-meetings> [<https://perma.cc/NEF7-D9C9>].

85. Walch, *supra* note 36, at 757–59 (encouraging legislators to consider diverse perspectives); *see also* discussion *supra* Section II.B.

86. *See infra* Section III.B (discussing the Cryptocurrency Act of 2020).

Second, although blockchain technology may eventually touch all areas of business, members of the public may be unaware of blockchain technology's potential. Legislative debates could double as community education opportunities, allowing people who would not ordinarily be interested in blockchain to attend Working Group meetings, task force briefings, and other public discussions of this new technology. Such meetings could be advertised to nontechnical professions and community organizations, and should be held in easily accessible public places and online. Legislators themselves could reach out to their nontechnical constituents and offer ways to connect them to educators and leaders in the blockchain industry. Such transparency could create a culture of innovation in a particular jurisdiction, while increasing public credibility for whatever regulations eventually develop.

D. Interjurisdictional Competition

States have been competing with each other since the beginning of the republic, and the competition has not decreased as our economy has become more complex.⁸⁷ In corporate law, interjurisdictional competitions are a common affair. The state that “wins” the race, creating the environment to attract the most businesses to that state, can secure both tax revenue and additional jobs for state residents. Delaware indisputably won the fight for corporate charters among states, with over 1.5 million legal entities, including 67 percent of all Fortune 500 corporations, incorporated there.⁸⁸ The reasons for Delaware's success include specialized legislation that is updated each year to adapt to technical and other changes, as well as a corporate-specific chancery court that can move cases quickly along.⁸⁹

When Limited Liability Companies (LLCs) were created in Wyoming in 1977, another interjurisdictional race was on.⁹⁰ Despite concerns that interstate LLCs would have problems without uniform LLC statutes among the states, “most states enacted LLC statutes before efforts to develop standardize statutes came to fruition.”⁹¹ As a result, only twelve states ultimately adopted uniform acts, and there is less uniformity for LLC statutes than for other business forms.⁹²

The same is happening now with statutes related to blockchain technology. States who can win the race to attract blockchain businesses to incorporate and domicile in their state can earn more than just increased tax revenues from start-up companies. Such a state could also create a reputation for being friendly to

87. For a brief history of interjurisdictional competition in the context of corporate law, see JONATHAN R. MACEY ET AL., *THE LAW OF BUSINESS ORGANIZATIONS: CASES, MATERIALS, AND PROBLEMS* 125 (13th ed. 2017).

88. *2019 Annual Report Statistics*, DELAWARE DIV. CORPS., <https://corpfiles.delaware.gov/Annual-Reports/Division-of-Corporations-2019-Annual-Report.pdf> [<https://perma.cc/M7C2-SYKH>].

89. MACEY ET AL., *supra* note 87, 132–33.

90. *Id.* at 911–12.

91. *Id.*

92. *Id.*

technological innovation, a reputation that would have impacts beyond blockchain technology. For this reason, some states (including Wyoming, the first state to draft LLC statutes in 1977) jumped out first to enact permissive blockchain- and crypto-friendly regulations.⁹³

Before enacting regulations, however, state legislatures should ensure they are clear on the policies underlying those regulations. For example, as discussed in Section II.A above, states should consciously strike a balance between protecting the public and encouraging innovation. Without establishing prioritized policies in advance, a state may win the interjurisdictional competition in the short term but create unintended consequences, such as unnecessary litigation or public harm, in the long term.

E. Uniformity

As a member of the California Blockchain Working Group, this author asked industry leaders in late 2019 what they preferred to see in blockchain regulation. Each of them clearly and unequivocally stated that uniformity of regulation across the United States would be good for business. It would be much easier for blockchain businesses to plan and expand their operations if states were aligned on regulatory issues, particularly in the area of digital assets.

The Uniform Law Commission (ULC) has made several attempts to create a standardized approach to digital asset regulation.⁹⁴ In 2017, the ULC proposed the Uniform Regulation of Virtual-Currency Businesses Act to provide “a statutory framework for the regulation of companies engaging in ‘virtual-currency business activity.’”⁹⁵ An accompanying “Supplemental Act” in 2018 provided rules related to commercial law and the Uniform Commercial Code.⁹⁶

These model acts had a short and controversial lifespan. No state enacted the model legislation, and only a handful of states introduced it.⁹⁷ Wyoming actively resisted the ULC’s request to withdraw Wyoming’s pending blockchain

93. See *infra* Section IV.B (discussing Wyoming).

94. See Steven O. Weise & Jonathan Mollod, *A Proposed Statutory Framework for State Regulation of Virtual Currency Businesses: The Uniform Law Commission’s “Uniform Regulation of Virtual-Currency Businesses Act,”* BLOCKCHAIN & L. (Apr. 4, 2018), <https://www.blockchainandthelaw.com/2018/04/a-proposed-statutory-framework-for-state-regulation-of-virtual-currency-businesses-the-uniform-law-commissions-uniform-regulation-of-virtual-currency-businesses-act/> [https://perma.cc/DYS2-EWSJ].

95. *Id.*

96. *Virtual-Currency Businesses Act, Supplemental Commercial Law for the Uniform Regulation of*, UNIF. L. COMM’N (2018), <https://www.uniformlaws.org/committees/community-home?CommunityKey=fc398fb5-2885-4efb-a3bb-508650106f95> [https://perma.cc/M7LA-F9SD].

97. Andrea Tinianow, *A Split Emerges in Blockchain Law: Wyoming’s Approach Versus the Supplemental Act*, FORBES (Mar. 7, 2019, 12:41 P.M.), <https://www.forbes.com/sites/andreatinianow/2019/03/07/a-split-emerges-in-blockchain-law-wyomings-approach-versus-the-supplemental-act/#33de2308719a> [https://perma.cc/7YML-GREQ]; see also Ed Drake, *Uniform Law Commission Wants US States to Hold Off on Crypto Regulations*, COINGEEK (Mar. 28, 2019), <https://coingeek.com/uniform-law-commission-wants-us-states-to-hold-off-on-crypto-regulations/> [https://perma.cc/3FYF-VSXX] (As of March 2019, “no state ha[d] chosen to write ULC crypto laws onto their statute books.”).

legislation in favor of adopting the ULC's approach.⁹⁸ Wyoming's legislators noted that the ULC's model acts had not yet been enacted by any jurisdictions, and explained why they considered Wyoming's regulatory approach to be the superior one.⁹⁹ One month later, the ULC recognized the need to convene a committee to study how the Uniform Commercial Code could be amended in order to "deal with emerging technologies."¹⁰⁰ The ULC urged "states to refrain from enacting legislation pending the result of the committee's work,"¹⁰¹ an act suggesting that the ULC recognized flaws in its proposed acts.¹⁰² Given the ongoing interjurisdictional race described in Section II.D, it seems absurd to ask states to wait on enacting blockchain legislation.

As of December 2020, only one state (Louisiana) had passed a virtual currency licensing statute based on the ULC's uniform act.¹⁰³ It is clear that, much like the race for corporate and LLC charters, the uniformity train has left this station. In the absence of federal legislation or effective model acts, states have already invested time and energy into drafting new laws. States like Wyoming, which has "actively decided to lead the charge in ensuring solvent, blockchain based" companies,¹⁰⁴ will not willingly give up their leading positions in this area.

III. THE CURRENT UNEASY MIX OF FEDERAL AND STATE BLOCKCHAIN REGULATION

Federal and state regulators are struggling to keep up with the fast pace of blockchain technology development. This Part will demonstrate how this struggle is creating a wide variety of regulatory approaches.

98. Tinianow, *supra* note 97. In response to the ULC's request, one "prominent" member of the Wyoming Senate asked, "Who do these people think they are telling Wyoming to withdraw a bill?" Letter from Rep. Tyler Lindholm & Sen. Ogden Driskill, to Anita Ramasastry, President, Unif. L. Comm'n (Feb. 27, 2019), <https://www.wyoleg.gov/InterimCommittee/2018/S3-Letter%20to%20Uniform%20Law%20Commission.pdf> [<https://perma.cc/NBR5-E77G>].

99. Letter from Rep. Tyler Lindholm & Sen. Ogden Driskill to Anita Ramasastry, *supra* note 98.

100. Caitlin Long, *Seismic News About State Virtual Currency Laws: ULC Urges States to Withdraw Model Act*, FORBES (Mar. 25, 2019, 10:07 P.M.), <https://www.forbes.com/sites/caitlinlong/2019/03/25/seismic-news-about-state-virtual-currency-laws-ulc-urges-states-to-withdraw-model-act/#453eda645fda> [<https://perma.cc/W6HU-PXZP>].

101. *Id.*

102. Drake, *supra* note 97.

103. See LA. STAT. ANN. §§ 6:1381–6:1394 (2020); see also Gary DeWaal & Cathy J. Yoon, *Louisiana Serves Up New Virtual Currency Business Law Cajun Style*, KATTEN FIN. MKTS. & FUNDS ADVISORY 1 (July 30, 2020), https://katten.com/files/863548_2020_07_30_fm_fmf_louisiana_serves_up_new_virtual_currency_business_law_cajun_style.pdf [<https://perma.cc/PF2E-3ECX>].

104. Letter from Rep. Tyler Lindholm & Sen. Ogden Driskill to Anita Ramasastry, *supra* note 98; see also *infra* Section IV.B (discussing Wyoming's efforts to attract blockchain business).

A. Patchwork Agency Regulation

The federal government's attempt to regulate blockchain technology, particularly cryptocurrencies, is (to put it bluntly) a mess. Federal authorities interpret laws relating to blockchain and cryptocurrencies differently.¹⁰⁵ This confusing, piecemeal approach is epitomized by the struggle to determine how to even classify digital currency for regulatory purposes. The Internal Revenue Service (IRS) views cryptocurrency as property, the Securities and Exchange Commission (SEC) classifies such currencies as securities, and the Commodity Futures Trading Commission (CFTC) considers cryptocurrency to be a commodity.¹⁰⁶ There is clearly a need for a unified methodology, even just within blockchain's narrow use case of cryptocurrencies, but this confusion is not a surprising result when "neither Congress nor the SEC has formally elucidated which digital assets are securities and which are not."¹⁰⁷

Different agencies are sending different messages, creating "regulatory whiplash."¹⁰⁸ Some, like the CFTC, are inclined toward experimentation to support blockchain and cryptocurrency development, while others are more cautious.¹⁰⁹ All of the agencies seeking to regulate blockchain technology and its applications would benefit from consideration of the five factors listed in Part III. Below is a short explanation of three distinctive agency approaches.

105. Elena Perez, *How the US and Europe Are Regulating Crypto in 2020*, COINTELEGRAPH (July 12, 2020), <https://cointelegraph.com/news/how-the-us-and-europe-are-regulating-crypto-in-2020> [https://perma.cc/W384-EABE].

106. COMMODITY FUTURES TRADING COMM'N, CFTC BACKGROUNDER ON OVERSIGHT OF AND APPROACH TO VIRTUAL CURRENCY FUTURES MARKETS 1 (2018), https://www.cftc.gov/sites/default/files/idc/groups/public/%40customerprotection/documents/file/backgrounder_virtualcurrency01.pdf [https://perma.cc/EH75-5CBL]; see also Stephen O'Neal, *SEC, CFTC, IRS and Others: A Guide To US Regulating Bodies*, COINTELEGRAPH (May 26, 2018), <https://cointelegraph.com/news/sec-cftc-irs-and-others-a-guide-to-us-regulating-bodies> [https://perma.cc/6Y26-9XHD] ("There are currently a number of federal regulators involved in crypto, and all of those bodies view cryptocurrencies like Bitcoin differently—defining it as a security, money, property or a commodity.").

107. Henderson & Raskin, *supra* note 48, at 443. This confusion has a ripple effect, as "banking regulators—including the Office of the Comptroller of the Currency (OCC), Federal Deposit Insurance Commission (FDIC), Federal Reserve, and Bureau of Consumer Financial Protection (CFPB)—have all grappled with how to oversee and regulate new technologically savvy entrants into the lending and payments industries." Brummer & Yadav, *supra* note 68, at 240.

108. Schmidt & Chan, *supra* note 54, at *18. As this Article went to press, a bipartisan group of lawmakers introduced a bill intended to rectify some of these problems. The "Eliminate Barriers to Innovation Act of 2021" would direct the CFTC and the SEC "to jointly establish a digital asset working group" to clarify cryptocurrency regulations. H.R. 1602, 117th Congress (2021). At a minimum, the introduction of this legislation demonstrates that lawmakers are increasingly aware of the regulatory challenges discussed in this Article.

109. See *Pomp Podcast #408: CFTC Chairman Heath Tarbert on Crypto Regulation* (Oct. 15, 2020), <https://www.youtube.com/watch?v=FaAEeOys4J4> [https://perma.cc/J9FP-M834] (The CFTC is one of the most "forward-thinking" federal agencies in the context of crypto regulation, and the CFTC Chairman wants "to see the United States support innovation in [the blockchain] space.").

1. SEC Safe Harbor Provision—A Work in Progress

The SEC missed its chance to establish a clear regulatory framework early in the life span of blockchain technology, instead adopting an approach characterized by delay and a series of reversals on important decisions.¹¹⁰ The SEC's delay "simultaneously encouraged unscrupulous actors to take advantage of ambiguous regulations" and issue fraudulent tokens to Americans, while "driving away conscientious developers and entrepreneurs" to places with more developed laws.¹¹¹ The SEC's attempt to clarify its position in a limited area with the April 2019 issuance of a "Framework for 'Investment Analysis' of Digital Assets" has been called "too little too late."¹¹²

In the meantime, SEC Commissioner Hester Peirce has earned the nickname "Crypto Mom."¹¹³ In early 2020, she offered her take on the legislative problems related to blockchain technology, saying "[i]t is important to write rules that well-intentioned people can follow. When we see people struggling to find a way both to comply with the law and accomplish their laudable objectives, we need to ask ourselves whether the law should change to enable them to pursue their efforts in confidence that they are doing so legally."¹¹⁴ Peirce clearly views law and regulation as a way to promote, not thwart, the development of blockchain and its use cases.

In February 2020, Peirce proposed a safe harbor provision for firms in the cryptocurrency space selling tokens to the public.¹¹⁵ Peirce described her proposal as recognizing "the need to achieve the investor protection objectives of the securities laws, as well as the need to provide the regulatory flexibility that allows innovation to flourish."¹¹⁶ The safe harbor proposal includes disclosure requirements for issuers and good faith obligations to ensure that token issuers are not fly-by-night companies. It also sets forth rules related to the purpose of token issuances and efforts to create liquidity for token users.¹¹⁷

110. Schmidt & Chan, *supra* note 54, at *18; *see also* Recent Guidance, *supra* note 43, at 2423 ("The SEC's guidance in the past suffered from internal ambiguity.").

111. Schmidt & Chan, *supra* note 54, at *17 (The SEC's "confusion and misguidance has driven blockchain development away from the United States at a critical juncture.").

112. *Id.*; *see also* Framework for "Investment Analysis" of Digital Assets, U.S. SEC. & EXCH. COMM'N, <https://www.sec.gov/corpfin/framework-investment-contract-analysis-digital-assets> [<https://perma.cc/W7PB-BP6Z>].

113. Danny Nelson, *SEC Commissioner Peirce Blasts Regulator's Action Against Telegram*, COINDESK (July 21, 2020), <https://www.coindesk.com/sec-commissioner-pierce-blasts-regulators-action-against-telegram> [<https://perma.cc/U23K-EPHR>].

114. Hester M. Peirce, Comm'r, U.S. Sec. & Exch. Comm'n, *Running on Empty: A Proposal to Fill the Gap Between Regulation and Decentralization* (Feb. 6, 2020), <https://www.sec.gov/news/speech/pierce-remarks-blockress-2020-02-06> [<https://perma.cc/7AVD-S8H4>].

115. *Id.*

116. *Id.*

117. The five main provisions of the safe harbor proposal are as follows:

(1) The Initial Development Team intends for the network on which the token functions to reach Network Maturity, as defined herein, within three years of the date of the first sale of tokens and will undertake good faith and reasonable efforts to achieve such status;

The idea underlying the proposal is to “give new projects some breathing room where they can do their work without fear of being fined, arrested or having their offices raided.”¹¹⁸ This also filters “out the bogus projects that have no intention of building a workable, decentralized product.”¹¹⁹ Peirce appears to be seeking a way to protect consumers from unscrupulous token issuers while allowing companies to move forward with technical developments.

Many members of the blockchain industry welcomed the safe harbor proposal. The General Counsel for a cryptocurrency exchange declared, “Today we both congratulate and thank SEC Commissioner Hester Peirce This is a great day for the blockchain industry and the United States.”¹²⁰ But the proposed safe harbor is just that: a proposal. It is not yet law, and may never become law.¹²¹ Even so, the willingness of Commissioner Peirce to think outside of the box with this proposal has reinforced her reputation (and her nickname) within the blockchain community.

2. The Federal Reserve’s Digital Dollar

The Federal Reserve revealed in February 2020 that it was working toward a potential central bank digital currency (CBDC).¹²² A CBDC, colloquially

(2) Disclosures required under paragraph (b) of this section must be made available on a freely accessible public website.

(3) The token must be offered and sold for the purpose of facilitating access to, participation on, or the development of the network.

(4) The Initial Development Team intends to and will undertake good faith and reasonable efforts to create liquidity for users. If the Initial Development Team attempts to secure secondary trading of the token on a trading platform, it will seek secondary trading platforms that can demonstrate compliance with all applicable federal and state law and regulations relating to money transmission, anti-money laundering, and consumer protection.

(5) The Initial Development Team files a notice of reliance in accordance with paragraph (c) of this section.

Id.

118. Sergey Golubev, *SEC Safe Harbor for Crypto—Maybe Story*, MEDIUM (Mar. 24, 2020), <https://medium.com/the-capital/sec-safe-harbor-for-crypto-maybe-story-b9f7512c829e> [<https://perma.cc/MB8U-B3MW>].

119. *Id.* As this Article goes to press, it remains to be seen how President Joseph Biden’s choices to lead the SEC and other agencies will affect cryptocurrency regulations.

120. Georgia Quinn, *Crypto’s Safe Harbor: How the SEC’s Rule 195 Could Change the Industry*, MEDIUM (Feb. 6, 2020), <https://medium.com/coinlist/cryptos-safe-harbor-how-the-sec-rule-195-could-change-the-industry-6c1878af266d> [<https://perma.cc/J4FB-D66A>].

121. See Bruce Fenton, *The SEC Blockchain Safe Harbor Proposal*, MEDIUM (Feb. 6, 2020), <https://medium.com/@brucefenton/the-sec-blockchain-safe-harbor-proposal-cbeb66ce272a> [<https://perma.cc/XZ2H-Q4RN>] (“I don’t think it is workable or will pass and overall seems to be a misguided, while well intentioned, effort.”).

122. Lael Brainard, Governor, Bd. of Governors of the Fed. Reserve Sys., *The Digitalization of Payments and Currency: Some Issues for Consideration* (Feb. 5, 2020), <https://www.federalreserve.gov/newsevents/speech/brainard20200205a.htm> [<https://perma.cc/DL6K-VLSQ>]. There are others working on this project: three former CFTC officials created the “Digital Dollar Foundation” to create potential designs and proposals. The Foundation partnered with Accenture to form the “Digital Dollar Project,” intending to “encourage research and public discussion on the potential advantages of a digital dollar, convene private sector thought leaders and actors, and propose possible models to support the public sector.” *Leading the Discussion on a U.S. Central Bank Digital*

known as a “digital dollar,” is not a token based on a decentralized blockchain.¹²³ It would instead be a “debt notation on a centralized ledger maintained by the Federal Reserve,” which would use a centralized database to track consumer or business balances.¹²⁴ Individuals could “access funds through digital dollar wallets, which would also be managed by the Fed.”¹²⁵

Although the digital dollar is different from a crypto asset on a blockchain, the policy issues at hand are quite similar. The Federal Reserve recognizes that these policies include financial stability and legal considerations, such as privacy concerns and protections for data and digital identity safety. However, the Federal Reserve clearly wishes to be on the cutting edge of the digital dollar debate, with one of its members noting that “it is essential that we remain on the frontier of research and policy development regarding CBDC.”¹²⁶

At the time, there was pressure on the Federal Reserve to begin researching a digital dollar. China is creating a digital yuan,¹²⁷ and some argue that the United States is already “falling behind” other countries in developing a CBDC.¹²⁸ In addition, the surprise release of Facebook’s Libra in 2019 (now rebranded as “Diem”) apparently inspired the Federal Reserve to accelerate its research on the potential of a CBDC.¹²⁹ The arrival of the COVID-19 pandemic expedited the discussion, as millions of people around the world moved toward cashless payments.¹³⁰

The discussion of a digital dollar jumped quickly during the pandemic from the Federal Reserve to Congress. Drafts of congressional emergency pandemic relief legislation in March 2020 included a digital dollar concept to speed up the delivery of stimulus payments.¹³¹ A Congressional Task Force on Financial

Currency, DIGITAL DOLLAR PROJECT, <https://www.digitaldollarproject.org/> [<https://perma.cc/DTJ7-PRM3>].

123. Meena Thiruvengadam, *How the COVID-19 Crisis Revived the Digital Dollar Debate*, COINDESK (May 8, 2020, 2:00P.M.), <https://www.coindesk.com/coronavirus-what-is-digital-dollar-cbdc-explainer> [<https://perma.cc/3SL6-2PMX>].

124. *Id.*

125. *Id.*

126. Brainard, *supra* note 122.

127. *Id.*

128. Mohammad Musharraf, *US Lags Behind Other Nations Regarding CBDCs, Says Former CFTC Commissioner*, COINTELEGRAPH (July 22, 2020), <https://cointelegraph.com/news/us-lags-behind-other-nations-regarding-cbdc-says-former-cftc-commissioner> [<https://perma.cc/2FCP-ANZT>]. Sheila Warren, Head of Blockchain, Data, and Digital Assets at the World Economic Forum, noted that “developing nations are able to more easily experiment with a CBDC because they are exploring use cases on a domestic level,” and are not “setting the table for the entire global economy.” *Id.*

129. Brainard, *supra* note 122 (“[The] Libra global stablecoin project has imparted urgency to the debate over what form money can take, who or what can issue it, and how payments can be recorded and settled.”)

130. Huw Jones, *Pandemic Pushes Central Bank Digital Currencies into Top Gear*, REUTERS (June 11, 2020, 8:53 AM), <https://www.reuters.com/article/us-health-coronavirus-britain-crypto-idUSKBN23I2HO> [<https://perma.cc/2YGH-D47D>].

131. S. 3571, 116th Congress (2020); *see also* Jason Brett, *Digital Dollar and Digital Wallet Bill Surfaces in the U.S. Senate*, FORBES (Mar. 24, 2020, 11:53 PM), <https://www.forbes.com/sites/jasonbrett/2020/03/24/digital-dollar-and-digital-wallet-legislation-surfaces-in-the-us-senate/#716d9d733866> [<https://perma.cc/4K2S-G2FJ>].

Technology held hearings on the issue in June 2020.¹³² Indeed, “the question might be not if digital currencies will find their way into the financial system, but when—and how.”¹³³ As federal lawmakers move toward the creation and regulation of a CBDC, they should be pondering how to encourage innovation while protecting consumers. In addition, anyone involved with the CBDC should consider transparency issues involving the input of multiple stakeholders, as well as ethical considerations such as concerns for unbanked populations.

3. *Treasury Department Regulations to Increase Cryptocurrency Transparency*

Unlike SEC Commissioner Hester Peirce and the Federal Reserve, U.S. Treasury Secretary Steven Mnuchin has taken a more cautious (and arguably negative) approach to cryptocurrency.¹³⁴ In February 2020, Secretary Mnuchin told the Senate Finance Committee that the Treasury Department would be enacting “stricter regulations around digital currencies to help expose ‘secret’ accounts and other nefarious activities.”¹³⁵ Although Mnuchin acknowledged that “[w]e want to make sure that blockchain technology moves forward,” he also noted that “[w]e want to make sure cryptocurrencies aren’t used for the equivalent of old Swiss secret number bank accounts.”¹³⁶

The goal of Treasury regulations will be to “ensure law enforcement can see where the money is flowing, and that it’s not used for money laundering.”¹³⁷ A March 2020 press release from the Treasury Department announced that the Department had held a meeting of “industry thought leaders and compliance

132. See, e.g., Press Release, Rep. Tom Emmer, FinTech Task Force Holds Virtual Hearing on Use of Digital Tools to Increase Financial Inclusion (Jun 12, 2020), <https://emmer.house.gov/2020/6/fintech-task-force-holds-virtual-hearing-on-use-of-digital-tools-to-increase-financial-inclusion> [<https://perma.cc/3AX6-XP4K>].

133. *Experts Tell Congress It’s Time to Create a “Digital Dollar,”* PYMNTS (June 12, 2020), <https://www.pymnts.com/digital-payments/2020/experts-tell-congress-create-digital-dollar/> [<https://perma.cc/23GF-SCRK>].

134. Nathan Whitemore, *SEC Commissioner Hester Peirce on a Bitcoin ETF, Custody Rules and What’s Next for the SEC*, COINDESK (Dec. 10, 2020, 12:40 PM), <https://www.coindesk.com/sec-commissioner-hester-peirce-bitcoin-etf> [<https://perma.cc/BJY6-KGMD>]; Kate Rooney, *Mnuchin: US Has ‘Very Serious Concerns’ that Facebook’s Libra Could Be Misused by Terrorists*, CNBC (July 15, 2019, 3:08 PM), <https://www.cnbc.com/2019/07/15/treasury-secretary-mnuchin-will-hold-a-news-conference-on-cryptocurrencies-at-2-pm-et.html> [<https://perma.cc/FPR4-SWKX>]. This is likely the result of President Donald Trump’s negative stance toward cryptocurrency. See Donald Trump (@realdonaldtrump), TWITTER (July 11, 2019, 5:15 p.m.), <https://twitter.com/realdonaldtrump/status/1149472282584072192?lang=en> [<https://web.archive.org/web/20201004013918/https://twitter.com/realdonaldtrump/status/1149472282584072192?lang=en>] (“I am not a fan of Bitcoin and other Cryptocurrencies, which are not money, and whose value is highly volatile and based on thin air. Unregulated Crypto Assets can facilitate unlawful behavior, including drug trade and other illegal activity . . .”).

135. Selva Ozelli, *US Takes Regulatory Steps for Blockchain Technology Adoption*, COINTELEGRAPH (Mar. 17, 2020), <https://cointelegraph.com/news/us-takes-regulatory-steps-for-blockchain-technology-adoption> [<https://perma.cc/L57P-RZ43>].

136. *Id.*

137. *Id.*

experts” on the issue of cryptocurrency regulation.¹³⁸ The press release also explained that as these regulations develop, Treasury will remain focused on preventing illegal conduct by “money launderers, terrorist financiers, and other bad actors.”¹³⁹ The repeated use of such negative terms indicates the Department’s adverse stance toward cryptocurrencies, as well as an example of lawmakers and regulators “still cling[ing] to an outdated trope where cryptocurrencies are used to underwrite criminal activity.”¹⁴⁰

What can we make of this patchwork approach to regulation among U.S. federal agencies? Some may argue that it is better for the federal government to allow the blockchain industry and cryptocurrency markets to evolve before finalizing a regulatory structure. There can also be benefits to regulatory divergence, such as enhanced innovation as agencies compete to become the preferred regulator in a particular field. However, the absence of “intelligent rules and regulations that provide a clear and predictable framework for investors, issuers, and their lawyers” is complicating that evolution.¹⁴¹ How can lawyers advise clients—such as start-up companies desiring to operate in the cryptocurrency sphere or offer tokens to investors—if it is unclear how such assets would be regulated? Policymakers are not sufficiently considering important factors, including transparency and uniformity, under this current approach.

Perhaps the problem is a lack of unity among federal agencies, who appear to be tripping over themselves to get in on the digital asset regulatory action. Federal policymakers may be concerned that they are not yet educated enough to make cohesive decisions about overarching regulatory frameworks, or they are waiting for Congress to step up. In any case, this confusion at the federal level is wreaking havoc on the blockchain industry in the United States. Innovative companies must risk inadvertently violating regulations (and having to pay the ensuing fines) just to push the industry forward.¹⁴² Alternatively, companies are choosing to leave the U.S for other jurisdictions with better regulatory

138. Press Release, U.S. Treasury Dep’t, Treasury Convenes Cryptocurrency Working Session with Industry Leaders (Mar. 2, 2020), <https://home.treasury.gov/news/press-releases/sm926> [<https://perma.cc/GY5Z-QBQR>].

139. *Id.*

140. Brandi Vincent, *Advancing Blockchain Act Calls for Federally-Led Deep-Dive Into the Nascent Tech*, NEXTGOV (May 29, 2020), <https://www.nextgov.com/emerging-tech/2020/05/advancing-blockchain-act-calls-federally-led-deep-dive-nascent-tech/165775/> [<https://perma.cc/3E74-EEQY>].

141. Henderson & Raskin, *supra* note 48, at 445.

142. Ripple’s CTO noted in June 2019 that the SEC “had settled into a pattern of regulation through enforcement,” rather than providing clear regulations for the industry to follow. *SEC Leaving Cryptos in an ‘Awkward’ Place, Ripple Exec Says*, LAW360 (June 12, 2019), <https://www.law360.com/articles/1168484/sec-leaving-cryptos-in-an-awkward-place-ripple-exec-says> [<https://perma.cc/Y4PC-5VCE>]; see also Park & Park, *supra* note 13, at 99 (discussing “regulation by selective enforcement” in the context of ICOs).

clarity.¹⁴³ Piecemeal regulation among federal agencies is “not a substitute for transparent legislation or judicial rulings to guide market participants.”¹⁴⁴

B. A Case Study of Legislative Failure: The Cryptocurrency Act of 2020

So where is Congress on this issue? The inability of federal legislators to create a comprehensive regulatory structure for blockchain technology’s applications is not for lack of effort. For example, the Token Taxonomy Act, which was reintroduced in 2019, sought to amend the securities laws to exclude digital tokens.¹⁴⁵ The bill has been stuck in committee for over a year.¹⁴⁶ The Blockchain Records and Transactions Act of 2018, reintroduced in 2020, would provide uniform standards regarding the “legal effect, validity and enforceability” of blockchain-based records.¹⁴⁷

In addition, the Advancing Blockchain Act was introduced in June 2020 as part of a wider package¹⁴⁸ of technology-related bills. This Act, if passed, would direct the Department of Commerce and the Federal Trade Commission to study blockchain in various industries.¹⁴⁹ The Act also requires the drafting of a report to Congress recommending ways to develop a “comprehensive plan” and “national strategy” for the promotion and adoption of blockchain.¹⁵⁰ In late 2020, Congressional members introduced the Digital Commodity Exchange Act¹⁵¹ and the (ironically titled) Securities Clarity Act;¹⁵² both acts are intended to provide better frameworks for the regulation of digital assets.

But it is the Cryptocurrency Act of 2020 that provides a clear illustration of the pitfalls awaiting lawmakers as they try to legislate new technologies. The original version of the Cryptocurrency Act of 2020, introduced by Rep. Paul Gosar (R-Ariz), was leaked in December 2019. The industry debate over its provisions began early. Rep. Gosar officially introduced a revised version in March 2020, with the hope that it would provide regulatory clarity to cryptocurrencies.¹⁵³ In reality, the bill does nothing to properly clarify the regulation of digital assets, and actually raises at least three problematic issues.

143. Jeff Kauflin, *Crypto Startups Are Fleeing the U.S.—This Bill Is Trying to Stop Them*, FORBES (Jan. 10, 2019, 12:25 P.M.), <https://www.forbes.com/sites/jeffkauflin/2019/01/10/crypto-startups-are-fleeing-the-usthis-bill-is-trying-to-stop-them/#c638fab2267a> [<https://perma.cc/FJ6D-EFAG>].

144. Recent Guidance, *supra* note 43, at 2425.

145. H.R. 2144, 116th Congress (2019). The bill also had some tax implications.

146. *Id.*

147. H.R. 8524, 116th Congress (2020).

148. Vincent, *supra* note 140.

149. H.R. 6938, 116th Congress (2020).

150. *Id.* The bill allows two years for the drafting of the report, with the effect that “permitting the FTC to spend two years studying blockchain before making any recommendations puts us another two years behind other countries.” Vincent, *supra* note 140.

151. H.R. 8373, 116th Congress (2020).

152. H.R. 8378, 116th Congress (2020).

153. Kuhn, *supra* note 67.

The bill divides digital assets into three different categories:

- 1) Crypto-commodity: “economic goods or services, including derivatives” with fungible value that “rest on a blockchain”;¹⁵⁴
- 2) Crypto-currency: “representatives of United States currency or synthetic derivatives on a blockchain”;¹⁵⁵
- 3) Crypto-security: “debt and equity on a blockchain,” excluding money service businesses;¹⁵⁶

The bill then identifies three federal agencies as “Primary Federal Digital Asset Regulators,” giving specific jurisdiction to each agency as the sole primary regulatory depending on the type of digital asset at issue. The CFTC would regulate crypto-commodities, the Financial Crimes Enforcement Network (FinCEN) would regulate cryptocurrencies, and the SEC would regulate crypto-securities.

The first issue with the bill is its lack of regulatory flexibility, which shows that the authors of this bill did not fully consider the balance between promoting innovation and protecting the public. What if an issue related to a cryptocurrency, for example, should fall within an area traditionally regulated by the SEC instead of FinCEN? If a crypto-commodity could be used as a currency, how should it be regulated? What about tax liability concerns, which are conspicuously absent from this bill? Given the swift pace of change in this industry, what would federal regulators do with a new type of digital asset that doesn't fall within these neat lines? Industry players will not wait around to find out, but will instead move to other jurisdictions.

This bill does not account for the fast-moving nature of this industry. Nor does it fully recognize the jurisdictional boundaries of these agencies.¹⁵⁷ It is true that classifying digital assets based on their characteristics could create a well-ordered regulatory framework, but digital assets are evolving too quickly for legislators to do this without some form of liaison between agencies.¹⁵⁸ For example, Congress or the White House could create a new Division of Emerging Technologies with ties to all of these regulatory bodies (much like California's new Office of Digital Innovation).¹⁵⁹ This new Division could sit within the cur-

154. H.R. 6154, 116th Congress (2020).

155. *Id.*

156. *Id.* The bill also defines the terms “smart contracts,” “reserve-backed stablecoin,” and “synthetic stablecoin.” *Id.*

157. Robert Kim, *A Crypto-Currency Act of 2020? You Cannot Be Serious!*, BLOOMBERG LAW (Jan. 13, 2020, 3:38 AM), <https://news.bloomberglaw.com/bloomberg-law-analysis/analysis-a-crypto-currency-act-of-2020-you-cannot-be-serious> [<https://perma.cc/K5XK-PYVB>].

158. Some would argue that even classifying digital assets at all is impossible: “It seems a common belief that digital assets can only fit a single category under US law—in other words, that they can be commodities OR securities OR property OR money OR speech, but not more than one. . . . That's wrong. Digital assets can be, and likely are, many of these at once.” Drake, *supra* note 97.

159. California's Office of Digital Innovation “is a start-up inside state government focused on improving services for the people of California.” CAL. OFF. DIGIT. INNOVATION, <https://www.govops.ca.gov/office-of-digital-innovation/> [<https://web.archive.org/web/20200627040733/https://www.govops.ca.gov/office-of-digital-innovation/>].

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rent Office of Science and Technology Policy and act as an official liaison, advising legislators about how proposed legislation falls within the jurisdiction of various agencies.

A second issue with the Cryptocurrency Act of 2020 is a provision allowing the government to trace cryptocurrency transactions:

[T]he Secretary of the Treasury, acting through the Financial Crimes Enforcement Network, shall issue rules to require each crypto-currency (including synthetic stablecoins) to allow for the tracing of transactions in the crypto-currency and persons engaging in such transactions in a manner similar to that required of financial institutions with respect to currency transactions¹⁶⁰

The purpose of this provision is ostensibly to enable a more effective fight against illegal uses of cryptocurrency, such as money laundering. This is not a new idea, since similar schemes already exist for fiat transactions. But by allowing the government to trace transactions, this bill takes away the pseudonymity of cryptocurrency.

Consequently, this provision has numerous privacy implications. Indeed, privacy advocates are very concerned about the consequences if this bill were to pass. For example, the Human Rights Foundation's Alex Gladstein tweeted, "Beware of the 'Crypto-Currency Act of 2020' or any kind of legislation which may force businesses to spy on, deanonymize, or micro-monitor customers. This is an attack on financial privacy, which we will desperately need in the future to safeguard democratic rights and freedoms."¹⁶¹ Others would argue that there is no need to protect the pseudonymity of cryptocurrency. Most fiat currency transactions (other than cash) are de-anonymized through know your customer and anti-money laundering regulations; why should cryptocurrency be treated differently?¹⁶² In any event, Congress should be ready for a major privacy uproar if this bill moves closer to passing.

Moreover, other questions will arise if a law like this were to pass. Should system developers be compelled by the law to adapt their systems to the law? What would happen if developers did not comply? How much system design can or should be compelled by regulatory compliance?

The Cryptocurrency Act of 2020 is undoubtedly too broad and too vague. But some argue that the bill is not needed at all. As Professor Donna Redel stated while discussing the Act, "The optimum way to regulate the industry would be for the agencies to come up with a robust set of rules."¹⁶³ If the agencies listed in the Cryptocurrency Act of 2020 could work together to create a cohesive framework, Congress could step back and let regulatory clarity emerge. This has the added bonus of taking at least some politics (or politicians) out of blockchain

160. H.R. 6154, 116th Congress (2020).

161. Alex Gladstein (@gladstein), TWITTER (Mar. 9, 2020, 10:03 p.m.), <https://twitter.com/gladstein/status/1237242717278633984> [<https://web.archive.org/web/20200310050959/https://twitter.com/gladstein/status/1237242717278633984>].

162. Some fiat-to-crypto exchanges are already complying with such regulations. See Adeyanju, *supra* note 49.

163. Kuhn, *supra* note 67.

regulatory drafting. However, as discussed above, federal agencies are a long way from a cohesive approach to digital assets.

This bill also demonstrates that federal lawmakers are writing cryptocurrency laws in the dark, with the outcome dependent upon whomever they speak with in the industry. Rep. Gosar was advised by two cryptocurrency millionaires in their early twenties, prompting one reporter to note that “[t]he innocence and youth sitting around the table that was developing Federal legislation was striking.”¹⁶⁴ There was no Working Group or other collaboration of various perspectives involved in the drafting of this bill, which epitomizes the lack of diverse viewpoints (and the lack of transparency) in federal lawmaking.¹⁶⁵

Lobbying is always present in Congress, and marginalized voices have less access to legislators than those with resources. But the inclusion of different voices and viewpoints is critical to fair legislation, and also “should lead to more fulsome analyses by regulators.”¹⁶⁶ The blockchain industry, together with federal lawmakers, must consider multiple perspectives when drafting bills relating to blockchain.¹⁶⁷ How else can the industry make sure that those who are speaking to Congress represent diverse and ethical viewpoints?

It is too late for the Cryptocurrency Act of 2020, which has already been declared “dead on arrival.”¹⁶⁸ But blockchain advocates, opponents, and members of the industry should be paying attention when bills like this are being drafted. If for no other reason, this could avoid wasting federal resources on a bill that won’t resolve our regulatory uncertainty. In the alternative, federal lawmakers could look to the states for guidance, as state legislatures are adopting a variety of approaches to the regulation of blockchain technology.

IV. THREE STATE APPROACHES: CALIFORNIA, WYOMING, AND NEW YORK

Three of the most important states in the context of regulating blockchain use cases are California, Wyoming, and New York. To understand their differences, one could consider Aesop’s fable “The Hare and the Tortoise.”¹⁶⁹ In the

164. Jason Brett, *U.S. Blockchain Entrepreneurs Support Crypto-Currency Act of 2020 Despite Pressure From D.C. Lobbyists*, FORBES (Mar. 14, 2020, 9:14 P.M.), <https://www.forbes.com/sites/jasonbrett/2020/03/14/us-blockchain-entrepreneurs-support-crypto-currency-act-of-2020-despite-pressure-from-dc-lobbyists/?sh=2c1f64d95945> [https://perma.cc/LAB8-RVLY].

165. *Id.* Assembling a multi-stakeholder group with various viewpoints and interests is a critical part of sound legislative advising. Urs Gasser et al., *Multistakeholder as Governance Groups: Observations from Case Studies* 9 (Berkman Center Rsch. Publ’n, No. 2015-1, Jan. 14, 2015), https://dash.harvard.edu/bitstream/handle/1/16140635/Berkman_2015-1-revision.pdf [https://perma.cc/44Y3-3J9A].

166. Walch, *supra* note 36, at 759.

167. Yuta Takanashi et al., *Call for Multi-Stakeholder Communication to Establish a Governance Mechanism for the Emerging Blockchain-Based Financial Ecosystem, Part 1 of 2*, 3 STAN. J. BLOCKCHAIN L. & POL’Y, no. 1, 2020, at 1, 2. (“[R]egulators should establish multi-stakeholder governance mechanisms within a blockchain-based financial ecosystem by improving cooperation among stakeholders.”).

168. Kuhn, *supra* note 67.

169. Aesop, *The Hare and the Tortoise*, LIBR. CONG., <http://read.gov/aesop/025.html> [https://perma.cc/2J9W-BA6Q].

fable, the hare and the tortoise agreed to a race. The hare ran so quickly that he was soon out of sight of the tortoise, and he decided to settle down for a nap while he waited for the tortoise to catch up. The tortoise plowed slowly ahead, passing the sleeping hare, and eventually crossed the finish line ahead of the tortoise.

This fable offers an analogy to state blockchain regulation. California is taking an intentionally slower and deliberative approach to blockchain regulation, earning the title of the “tortoise.” Wyoming has jumped quickly to the front of the line by passing numerous blockchain laws quickly, just as the “hare” ran ahead in the race. New York is an outlier in the fable, but could be seen as a “boomerang” for its decision to rapidly move forward with the creation of the BitLicense, and then swing the blockchain regulatory pendulum back again.

A. California (the “Tortoise Approach”)

California has the largest population in the United States, and is the world’s “fifth-largest economy.”¹⁷⁰ With many stakeholders affected by blockchain regulation, California is taking a more deliberate approach than some other states (the “tortoise” approach). California lawmakers passed Assembly Bill 2658 in 2018, establishing a Blockchain Working Group.¹⁷¹ The Group was charged with defining the term “blockchain,” evaluating blockchain “uses, risks, benefits, legal implications and best practices,” and recommending amendments to other state statutes that would be affected by “the deployment of blockchain.”¹⁷²

The Working Group, convened in August 2018, had 20 members representing diverse disciplines, including “technology, business, government, law, [and both] public and private information security.”¹⁷³ This independent body also considered input from a wide variety of stakeholders, as members of the public from academia, industry, and other areas attended the public meetings or provided comments in written form.¹⁷⁴

As the Working Group gathered and considered input, the members divided up topics for research and drafting. These topics included blockchain’s implica-

170. Camille Crittenden, *Blockchain Chair Outlines Lessons Learned—and What’s to Come*, TECHWIRE (July 10, 2020), <https://www.techwire.net/news/commentary-blockchain-chair-outlines-lessons-learned---and-whats-to-come.html> [<https://perma.cc/BKT5-L5VZ>].

171. CAL. BLOCKCHAIN WORKING GRP., *supra* note 3, at 2.

172. *Id.*

173. *California Blockchain Working Group About Us*, CAL. GOV’T. OPERATIONS AGENCY, <https://www.govops.ca.gov/blockchain/> [<https://perma.cc/L7QA-ZANV>].

174. See Cal. Blockchain Working Grp., *Blockchain Working Group Meeting Minutes*, CAL. GOV’T. OPERATIONS AGENCY, (June 2, 2020), <https://www.govops.ca.gov/wp-content/uploads/sites/11/2020/06/Blockchain-Working-Group-Meeting-Minutes-June-2nd.pdf> [<https://perma.cc/23AL-22AA>]. Members of the public were invited to participate in an online survey and were given opportunities to comment publicly during meetings. See, e.g., Cal. Blockchain Working Grp., *Notice and Public Meeting Agenda* (Feb. 7, 2020), <https://www.govops.ca.gov/wp-content/uploads/sites/11/2020/02/February-7th-BWG-Notice-and-Public-Meeting-Agenda-PDF-Updated.pdf> [<https://perma.cc/7LSK-HLZV>].

tions on finance and banking implications, civic participation, utilities and natural resources, and supply chains.¹⁷⁵ As discussed in Section II.B, this group also drafted the first ethical considerations for blockchain regulation. In addition, the group discussed and adopted a framework for assessing the fitness of blockchain for use cases.¹⁷⁶ This “thoughtful, evidence-based” method was intended to create “new frameworks for implementing an emerging technology with potentially wide-ranging impact.”¹⁷⁷ For example, as noted in Section II.B above, the ethical framework created by the Working Group was the first of its kind among U.S. states.

The Working Group recognized the tension between protecting Californians and avoiding the loss of blockchain business to interjurisdictional competition, working accordingly with the input of multiple stakeholders from across the state. In this way, California lawmakers will have already determined policy decisions before drafting a comprehensive regulatory scheme. In the words of Assembly Majority Leader Ian Calderon, who sponsored the legislation creating the Working Group, California’s lawmakers will be able to “learn from the mistakes made from other states that have drafted legislation for blockchain and make well informed decisions to come up with legislation that works best for California.”¹⁷⁸ This may also allow California to emerge as a leading model in blockchain regulation; as Professor Angela Walch notes, legislative bodies that can critically think about this new technology in an educated way may end up “helping to *create* the set of facts about the technology.”¹⁷⁹

The Working Group also provided a way to educate legislators about blockchain’s potential; it is a rare gift in the blockchain industry to have a 169-page report by multiple stakeholders that summarizes both the technology and the use cases relevant to a particular jurisdiction.¹⁸⁰ Moreover, any legislation ultimately drafted will likely have more buy-in from members of the public.

There are, of course, disadvantages to California’s slow method of lawmaking. Although the Working Group drafted a report in record time from the perspective of a legislative body, California certainly lost valuable time as blockchain companies chose to move to states (or foreign jurisdictions) with more developed regulatory structures.¹⁸¹ In addition, the Working Group’s report is only the beginning of the story; any bill based on the Working Group

175. This author was the primary author for the Sections on Ethical Considerations (Section IV.B) and Civic Participation (Section V.G). *See generally* CAL. BLOCKCHAIN WORKING GRP., *supra* note 3, at 27–32, 134–44.

176. *Id.* at 24–25.

177. Crittenden, *supra* note 170.

178. Rachel Wolfson, *Majority Leader of California State Assembly Pushes for Legal Certainty for Blockchain*, COINTELEGRAPH (Dec. 11, 2019), <https://cointelegraph.com/news/majority-leader-of-california-state-assembly-pushes-for-legal-certainty-for-blockchain> [https://perma.cc/HVR4-UG2W].

179. Walch, *supra* note 36, at 763.

180. The Blockchain Working Group’s full report is available online. *See* CAL. BLOCKCHAIN WORKING GRP., *supra* note 3.

181. Wolfson, *supra* note 178.

report must move through the legislative process before becoming law.¹⁸² Assembly Majority Leader Calderon noted that “[t]he earliest possible implementation date on blockchain related policy would be January 1, 2022 at this rate, which is a huge concern because there will already be a lot of movement happening in the space.”¹⁸³ Despite this cost, California’s measured approach to blockchain legislation may lead to a more balanced and successful legislative scheme in the long run.

B. Wyoming (the “Hare” Approach)

Wyoming, America’s least populous state, is a small and nimble jurisdiction.¹⁸⁴ Its state legislators realized that it could be “good for Wyoming that the federal government has been proving its stripes of incompetency” in the context of blockchain regulation.¹⁸⁵ Wyoming jumped ahead of the pack by drafting some of the first and most permissive laws regulating blockchain and cryptocurrency in the United States (the “hare” approach). Indeed, Wyoming’s pace of lawmaking is truly impressive, as the state legislature famously enacted thirteen crypto-friendly laws in 2019.

Wyoming’s state legislature and blockchain advocates made the calculation that the state could become a “crypto haven”¹⁸⁶ by passing permissive legislation early and often. Wyoming does not tax cryptocurrency,¹⁸⁷ and recognizes property rights for digital assets.¹⁸⁸

Wyoming has even created Special Purpose Depository Institutions (SPDIs), a new type of fully reserved fiat bank that can also custody crypto assets.¹⁸⁹ This bank is proving to be a way of getting around New York’s restrictive BitLicense (described in Section IV.C below), because these SPDIs can operate in New York without a BitLicense.¹⁹⁰

Wyoming’s approach has proven to be good for business. The laws passed there are designed to be favorable to cryptocurrency companies and investors,

182. *Id.*

183. *Id.*

184. Gregory Barber, *The Newest Haven for Cryptocurrency Companies? Wyoming*, WIRED (June 13, 2019, 7:00 AM), <https://www.wired.com/story/newest-haven-cryptocurrency-companies-wyoming/> [<https://perma.cc/FY3U-TV7H>].

185. *Id.*

186. *Id.*

187. WYO. STAT. ANN. § 39-11-105 (West, Westlaw through 2020 Budget Sess.).

188. WYO. STAT. ANN. § 34-29-102 (West, Westlaw through 2020 Budget Sess.); *see also* Caitlin Long, *What Do Wyoming’s 13 New Blockchain Laws Mean?*, FORBES (Mar. 4, 2019, 7:29 AM), <https://www.forbes.com/sites/caitlinlong/2019/03/04/what-do-wyomings-new-blockchain-laws-mean/#712146715fde> [<https://perma.cc/8UWP-XQ7L>] (providing a summary of Wyoming’s regulatory approach). Caitlin Long, the author of the above-cited article, is a leader in the Wyoming blockchain industry.

189. Ian Allison, *Wyoming’s New Crypto Banking Law Could Defang New York’s BitLicense*, COINDESK (Nov. 17, 2019, 11:37 AM), <https://www.coindesk.com/wyomings-new-crypto-banking-law-could-defang-new-yorks-bitlicense> [<https://perma.cc/C3MG-6YBR>].

190. WYO. STAT. ANN. §§ 13-12-101 to 13-12-126 (West, Westlaw through 2020 Budget Sess.); *see also* Allison, *supra* note 189.

and the state is working to attract blockchain companies.¹⁹¹ Wyoming's hope is that these companies will "offer more than a \$100 filing fee and a PO box in Cheyenne," but will also bring employment and innovation opportunities to residents of Wyoming.¹⁹²

Other states have noticed Wyoming's early success with the hare approach and are following suit, passing similarly permissive laws in a bid to attract blockchain businesses to their states.¹⁹³ The President of the recently formed Texas Blockchain Council was candid in July 2020 about his state's interest in following Wyoming:

What states like Wyoming have done for blockchain innovation is truly amazing and we certainly want to emulate that. We just want to come behind these states with Texas' trillion-dollar economy, which will ultimately allow us to become the next big place where blockchain innovation happens.¹⁹⁴

But there is a risk to this method, since courts may end up clogged with litigation based on issues that a speedy legislature was not able to contemplate in advance. In addition, a large state like Texas may not be able to modify its legislation to changes in technology as quickly as a small state like Wyoming. Passing hastily drafted legislation also raises questions of transparency, since there may not be time to consider the perspectives of diverse stakeholders. Whether Wyoming's hare approach will ultimately prove to be more successful than California's tortoise approach remains to be seen, especially as these new laws wind their way through litigation and are ultimately tested in state (and potentially federal) courts.

C. New York (the "Boomerang Approach")

New York, always a leader in the world of financial services, adopted a very restrictive approach to regulating blockchain's first and most advanced use case: virtual currencies. In 2015, the New York Department of Financial Services created a "BitLicense," designed for the purpose of regulating virtual currency business for New York residents and customers.¹⁹⁵ Any company seeking

191. Barber, *supra* note 184.

192. *Id.*

193. Long, *supra* note 188; see also Danny Nelson, *BitLicense at 5: Despite Architect Lawsky's Hopes, Few States Copied NY Rules*, COINDESK (June 24, 2020), <https://www.coindesk.com/bitlicense-influence-state-crypto-legislation> [<https://perma.cc/BN47-PATR>] (States considering crypto regulations "are looking west, to Wyoming.").

194. Rachel Wolfson, *US State of Texas Saddles Up to Become the Next Blockchain Capital*, COINTELEGRAPH (July 21, 2020), <https://cointelegraph.com/news/us-state-of-texas-saddles-up-to-become-the-next-blockchain-capital> [<https://perma.cc/4VS6-Q24E>]. Note that betting on the cryptocurrency industry can be a risky gamble for jurisdictions. See, e.g., Mark Dent, *The Hard-Luck Texas Town That Bet on Bitcoin—and Lost*, WIRED (July 11, 2019, 7:00 AM), <https://www.wired.com/story/hard-luck-texas-town-bet-bitcoin-lost/> [<https://perma.cc/TX6F-47ZW>].

195. N.Y. COMP. CODES R. & REGS. tit. 23, § 200 (West, Westlaw current with amendments included in the N.Y. State Reg., vol. XLIII, issue 9 dated Mar. 3, 2021.). For a detailed review of the BitLicense legislation, see Jane Kim, Note, *Suffocate or Innovate: An Observation of California's Regulatory Framework for Cryptocurrency*, 52 LOY. L.A. L. REV. 339, 349–50 (2019);

to sell cryptocurrency in New York is required to secure a BitLicense to do so.¹⁹⁶ BitLicenses also require companies to disclose detailed information about company operations, including know your customer requirements.¹⁹⁷

The BitLicense is not only the most “rigorous” regulatory scheme in the United States, but it is also notoriously difficult to acquire this license.¹⁹⁸ Only twenty-five licenses have been issued in the five years that the BitLicense has been active.¹⁹⁹ Numerous companies declared soon after the enactment of the BitLicense that they were no longer going to transact business in New York,²⁰⁰ prompting complaints that the BitLicense was deterring innovation.²⁰¹ This “Great Bitcoin Exodus”²⁰² has continued to have ramifications in New York, as other states (such as Wyoming) are attracting blockchain and crypto companies with their less restrictive regulations.

In light of New York’s declining position in the interjurisdictional race for blockchain business, there are indications that some of these restrictions might soon become more relaxed. In late June 2020, New York’s Department of Financial Services announced that it would create a “conditional license” that allows companies to conduct virtual currency business in New York, if they agree to “collaborate and engage” with an “an authorized VC [“Virtual Currency”] Entity for various services and support.”²⁰³ The State University of New York (SUNY) system will create an authorized VC entity for this purpose, meaning that companies can experiment with virtual currency under university supervision through the new SUNY BLOCK program.²⁰⁴

see also Usman W. Chohan, Oversight and Regulation of Cryptocurrencies: BitLicense 2 (Mar. 3, 2018), <https://ssrn.com/abstract=3133342> (unpublished discussion paper).

196. N.Y. COMP. CODES R. & REGS. tit. 23, § 200.3 (Westlaw).

197. *Id.* § 200.14 (Westlaw); *see also* Chohan, *supra* note 195; Michael del Castillo, *The ‘Great Bitcoin Exodus’ Has Totally Changed New York’s Bitcoin Ecosystem*, N.Y. BUS. J. (Aug. 12, 2015), <https://www.bizjournals.com/newyork/news/2015/08/12/the-great-bitcoin-exodus-has-totally-changed-new.html> [<https://perma.cc/W4V4-Y5QA>].

198. Nikhilesh De, *New York Moves to Lure Crypto Startups as BitLicense Turns Five*, COINDESK (June 24, 2020), <https://www.coindesk.com/new-york-moves-to-lure-crypto-startups-as-bitlicense-turns-five> [<https://perma.cc/LB4E-EM8W>].

199. *Id.*

200. Daniel Roberts, *Behind the “Exodus” of Bitcoin Startups from New York*, FORTUNE (Aug. 14, 2015, 8:19 AM), <http://fortune.com/2015/08/14/bitcoin-startups-leave-new-york-bitlicense/> [<https://perma.cc/64HZ-3UHF>]; *e.g.*, Krakenfx, *Farewell New York*, KRAKEN BLOG (Aug. 9, 2015), <https://blog.kraken.com/post/253/farewell-new-york/> [<https://perma.cc/CX4W-D38R>].

201. Barber, *supra* note 184.

202. Del Castillo, *supra* note 197.

203. *Request for Comments on a Proposed Framework for a Conditional BitLicense*, N.Y. DEP’T FIN. SERV., https://www.dfs.ny.gov/apps_and_licensing/virtual_currency_businesses/gn/request_comments_prop_framework. [<https://perma.cc/N8H8-RHEH>]. New York also offered additional guidance intended to clarify the BitLicense requirements for companies hoping to acquire one. De, *supra* note 198.

204. *Memorandum of Understanding Between the New York State Department of Financial Services and The State University of New York*, N.Y. DEP’T FIN. SERV. (June 18, 2020), https://www.dfs.ny.gov/system/files/documents/2020/06/mou_dfs_suny_20200618.pdf.

This is a creative collaboration between a state agency and its state university system, and it will be interesting to observe how this program evolves. New York is effectively employing a “boomerang” approach: they started with the most restrictive regulations in the country, and now may be returning back to a middle ground approach. In any case, there is no mistaking the reason for New York’s decision to ease BitLicense requirements: NYDFS Superintendent Linda Lacewell stated outright on Twitter that “We want innovators across the board to come to NY. #NewYork is the capital of finance and #Innovation, & we want innovators right here in #NY which has been a place of invention and ingenuity.”²⁰⁵ Will New York catch up in the interjurisdictional race for blockchain and cryptocurrency business? The answer is not yet clear, but legislators across the country should keep an eye on these developments as they create their own regulatory schemes.



If nothing else, states and the federal government have demonstrated that there are various ways to regulate crypto and blockchain businesses in the United States.²⁰⁶ Federal agencies are taking different, and sometimes conflicting, viewpoints toward the regulation of cryptocurrency and digital assets. Congress’ attempts to provide an overarching regulatory scheme, such as the Cryptocurrency Act of 2020, have so far been ineffective.

Lawmakers could look to the states for guidance, especially the three distinct legislative approaches of California, Wyoming and New York. Each of these methods has benefits and disadvantages, and it is not yet clear which approach will be the most successful in the long term.²⁰⁷ The race is not always won by the swift,²⁰⁸ but delayed legislative efforts risk losing the interjurisdictional competition for blockchain business. Lawmakers should also consider the five factors recommended in this Article, as deliberate contemplation of each of these factors will result in stronger blockchain-related legislation.

Blockchain technology and its applications will continue developing quickly, regardless of how governments frame regulation. Everyone—including industry players, members of the public, and governments themselves—will benefit if lawmakers can strike the right balance between innovation and public protection.

205. N.Y. State Dep’t of Fin. Servs. (@NYDFS), TWITTER (July 14, 2020, 7:01 AM), <https://twitter.com/NYDFS/status/1283038875070468097> [<https://web.archive.org/web/20200714141109/https://twitter.com/NYDFS/status/1283038875070468097>]; *see also* De, *supra* note 198 (“All this is meant to make it easier for companies to engage with the department and secure licenses.”).

206. Nelson, *supra* note 193.

207. As a member of the California Blockchain Working Group, I would be remiss in not reiterating that in Aesop’s version, the tortoise eventually won the race. *See* Aesop, *supra* note 169.

208. *Id.*