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A Tale of Two Regulators: Antitrust Implications of Progressive Decentralization in Blockchain Platforms

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Abstract

Competition regulators have identified the potential for blockchain technology to disrupt traditional sponsor-led platforms, like app stores, that have received increased antitrust scrutiny. Enforcement actions by securities regulators, however, have forced blockchain-based platforms to adopt a strategy of progressive decentralization, delaying decentralization objectives in favor of the centralized model that competition regulators hope they will disrupt. This regulatory tension, and the implications for blockchain's procompetitive potential, have yet to be explored. This Article first identifies the origin of this tension and its consequences through a competition law lens, and then recommends that competition regulators account for this tension in monitoring the blockchain industry and strive to resolve it moving forward.

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I. Introduction

Competition regulators around the world have recognized the procompetitive potential of permissionless, decentralized blockchain-based platforms.[1] In particular, blockchain technology has the ability to limit or eliminate the role of the central intermediary or sponsor in a multi-sided platform, which competition regulators hope will mitigate the risk of one company securing market power.[2] For example, unlike traditional platforms where one party controls user data and platform rules, including platform access, decentralized blockchain-based platforms typically open network data and

1. *See* Makan Delrahim, Assistant Att'y Gen., Dep't of Just., Never Break the Chain: Pursuing Antifragility in Antitrust Enforcement, Remarks at the Thirteenth Annual Conference on Innovation Economics (Aug. 27, 2020), https://perma.cc/U3TE-267K; CHRIS PIKE, OECD, ISSUES PAPER BY THE SECRETARIAT NO. 47, BLOCKCHAIN TECHNOLOGY AND COMPETITION POLICY 7 (2018), https://perma.cc/5Y5L-EBXM (PDF).

2. *See* Delrahim, *supra* note 1 ("The potential of blockchain is the ability to operate a marketplace or network without a centralized intermediary. . . . [A] central question for antitrust enforcers [is]: whether this new way of organizing interactions can prevent or limit the concentration of market power."); Christian Catalini & Catherine Tucker, *Antitrust and Costless Verification: An Optimistic and a Pessimistic View of the Implications of Blockchain Technology* (MIT Sloan Sch. Working Paper No. 5523-18, 2018).

governance to all platform participants.[3] Accordingly, competition regulators consider decentralized platforms as a potential alternative to sponsor-led platforms that many have recently challenged for allegedly violating antitrust laws.[4] Enforcement actions from other regulators, however, are pushing blockchain-based platforms away from the ideals of decentralization and toward the centralized, sponsor-led model that competition regulators hope they will disrupt. In particular, enforcement actions against Initial Coin Offerings (ICOs)—a key mechanism to incentivize participation in an open and decentralized network—have complicated the procompetitive vision for blockchain platforms.

This Article begins with a brief primer on blockchain platforms. It continues by describing the incentives problem that blockchain platforms face, the role that ICOs play in solving that problem, and the response from the US Securities and Exchange Commission (SEC). This Article then identifies a consequence of the SEC's enforcement actions against ICOs: that companies must adopt a platform-sponsor role at the outset and gradually march toward decentralization over time—a business strategy called progressive decentralization. Next, it discusses the antitrust implications of progressive decentralization and the ICO enforcement actions that led to it. This Article concludes with recommendations for regulators and policymakers.

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3. These are just a handful of typical sponsor functions, but they are the ones that generally result in complaints from platform participants and competitors, and that as a result drive antitrust scrutiny. Other typical sponsor roles, such as steering platform development, marketing, and lobbying for preferred legal treatment, are performed in the blockchain context by non-profit foundations (e.g., Ethereum Foundation), which are typically composed of a platform's founding group of developers, who can influence but not control a decentralized platform, and industry association groups (e.g., The Blockchain Association).

4. *See, e.g.*, Complaint for Injunctive & Other Equitable Relief at 3, Fed. Trade Comm'n v. Facebook, Inc., No. 20-cv-03590 (D.D.C. Dec. 9, 2020) (accusing Facebook of "anticompetitive conditioning of access to its platform to suppress competition").

II. Primer on Blockchain Platforms

In general terms, a "blockchain" is a decentralized, distributed ledger that maintains an immutable record of transactions. Each transaction or series of transactions is a block in the chain. Banking offers some clear examples that help distinguish blockchain networks from traditional networks. Traditional networks require users to trust that a central intermediary will accurately confirm and execute valid transactions. For example, banking customers rely on their banks for access to their funds, to accurately record and relay the balance of their account, and to execute valid transactions, such as the exchange of funds, between parties. In blockchain networks, however, transaction records are duplicated, distributed, and verified across a network of individual computers or "validators," eliminating the need for trust in a central intermediary. To use a variation on the banking example from above, in a blockchain network where two users are trying to exchange a digital asset, a user does not need to trust that any one party will confirm ownership of that digital asset and execute transfer of that ownership from one party to the other. Instead, the provenance of that digital asset is simultaneously confirmed by all of the individual computers on the blockchain, each of which holds a copy of the blockchain's ledger. Upon the transaction's completion, an updated ledger is duplicated and distributed to the validators on the network. Blockchain networks often reward validators with digital assets known as tokens.

A "blockchain-based platform" is a platform built using the above-described distributed ledger technology upon which developers can write and host applications. Simplified, a blockchain-based platform has two layers, the protocol layer and the application layer. The blockchain protocol establishes the rules by which the network is governed and transactions are validated.[5] Protocols designed to support applications incorporate an application programming interface that allows

5. The process for validating transactions, known as a "consensus mechanism," varies by protocol. One example is proof-of-stake, where validators agree to tie-up some of their tokens to vie for a chance to validate a transaction and mint the next block in the chain, for which they receive a token reward.

developers to access and transmit data to and from the blockchain. Ethereum, for example, allows developers to write "smart contracts," a coded script that is embedded into the Ethereum blockchain and sets out rules for governing a specific transaction. Developers can then build applications that interact with these smart contracts.

What makes blockchain platforms unique and potentially disruptive to existing networks is that a central authority does not control the rules governing the protocol and its applications. Smart contracts, for example, are autonomous and self-executing—their terms cannot be changed, even by the contract's creator. Additionally, changes to protocol rules typically require approval from platform participants—one party is unable to unilaterally change the rules of the platform, which is a common criticism of sponsor-led platforms, like app stores.

III. Blockchain's Incentives Problem

For all of its procompetitive potential, the concept of a decentralized, permissionless, and open-source blockchain protocol faces a significant incentives problem, or what at least one investor has called a "value capture paradox."[6] Blockchain networks are multi-sided platforms that need to attract a diverse set of participants to succeed, including investors, validators, developers, and end users. A fundamental characteristic of a decentralized platform is that the network's source code, as well as its data, is publicly available. This means that any developer can create and implement a copy or "fork" of an open-source protocol. Developers could even take a fee-based protocol and duplicate it, while reducing the fee or eliminating it altogether. Put another way, a permissionless, decentralized, and open-source network is completely undefended from free-riding. Intellectual property and trade secret protections (e.g., using resources such as data in a proprietary way) that typically protect platforms and that allow its participants to generate income are absent from open and decentralized blockchain networks. If investors, validators, and developers

6. TechCrunch, *Ali Yahya: Crypto Business Models*, YOUTUBE (May 27, 2020), https://perma.cc/9MCE-M3AS.

are less able to capture value, then there is less incentive to participate in the network.

To solve the incentives problem, blockchain platforms must implement a mechanism that allows participants to capture value from the network. Without solving the incentives problem, it is unlikely that a blockchain platform will achieve the disruptive competitive potential that regulators often tout.[7]

A. ICOs as a Solution to Blockchain's Incentive Problem

Raising funds through the issuance of digital assets, often as an ICO, was the blockchain community's early response to its incentives problem. ICOs serve a dual purpose. First, they allow developers to raise capital on the front end of a project by pre-selling access to their platform in the form of tokens. According to CoinDesk's ICO Tracker, ICOs raised $256 million in 2016, $5.5 billion in 2017, and $13.6 billion in the first half of 2020.[8] Second, tokens build strong network effects through a feedback loop. A blockchain's token draws the attention of early investors and developers.[9] These early investors and developers build products and services on the blockchain in an effort to cause the success of the project and increase the value of their tokens. The success of the project brings more users to the blockchain, who share in the value appreciation of the network, which drives more investors and developers to participate, each with an aligned incentive to develop and build upon the blockchain to drive up the value of their tokens. In its most simple form, the token feedback loop can be described as: investment leads to development, development leads to user

7. As former Assistant Attorney General Makan Delrahim explained, "[t]he benefit of blockchain is that it may be able to eliminate, or shift the role of, intermediaries. The drawback in the system is that individual participants might lack the proper incentives to invest in creating the network in the first instance or in maintaining it over time." Delrahim, *supra* note 1.

8. *CoinDesk ICO Tracker*, COINDESK, https://perma.cc/PUY4-ZKZ7.

9. *See* Christian Fisch, *Initial Coin Offerings (ICOs) to Finance New Ventures*, 34 J. BUS. VENTURING 1, 5 (2019) ("ICOs typically occur in the early stages of a venture's life cycle and the tokens often do not have any counter value or real-world usage at the time of the ICO." (citations omitted)).

adoption, user adoption leads to value, and value leads to investment, and over again.[10]

An ICO does not necessarily guarantee a functioning feedback loop, however. Instead of attracting active participants to the platform, ICOs may attract speculators who only intend to trade the token on crypto exchanges.[11] Investors are an important part of the feedback loop, and asset liquidity an important part of value capture, but a large imbalance between speculators and active platform participants (e.g., users, developers, and validators) risks the integrity of the platform.

B. Regulatory Response to ICOs

During the 2017 ICO boom[12] and the period that followed, the regulatory landscape was relatively uncertain as the SEC struggled to provide clarity to blockchain startups regarding this nascent form of fundraising and platform building.[13] Fast

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10. *See* Lin William Cong, Ye Li & Neng Wang, *Tokenomics: Dynamic Adoption and Valuation* E-2 (Nat'l Bureau of Econ. Rsch., Working Paper No. 27222, 2020) ("[A] greater user base attracts more resources and research onto the platform, accelerating the technological progress on the platform and creating a positive feedback loop.").

11. *See* Sabrina T. Howell, Marina Niessner & David Yermack, *Initial Coin Offerings: Financing Growth with Cryptocurrency Token Sales* 21 (Nat'l Bureau of Econ. Rsch., Working Paper No. 24774, 2019) ("[C]onventional institutional investors such as hedge funds and VCs have purchased significant shares of tokens, especially in the most sought-after ICOs, raising concerns that utility tokens are held mostly be speculators rather than future customers.").

12. *See* Nareg Essaghoolian, Comment, *Initial Coin Offerings: Emerging Technology's Fundraising Innovation*, 66 UCLA L. REV. 294, 312–13 (2019) ("[I]t was not until 2016 that ICOs boomed in popularity. . . . In 2017, there was an exponential increase in the number of ICOs held and the amounts raised.").

13. In July 2017, the SEC published an investigative report concluding that DAO Tokens were securities and cautioned market participants that:

> [T]he federal securities laws apply to those who offer and sell securities in the United States, regardless whether the issuing entity is a traditional company or a decentralized autonomous organization, regardless whether those securities are purchased using U.S. dollars or virtual currencies, and regardless whether they are distributed in certificated form or through distributed ledger technology.

forward to 2020 and the SEC Enforcement Division's record year in disgorgements and penalties totaling $4.68 billion, more than a quarter of which came from unregistered ICOs.[14] During this time, the SEC relied on enforcement actions over rulemaking to regulate blockchain-based platforms.[15] These enforcement actions are driving blockchain-based companies in the United States[16] to adopt a more traditional fundraising model, and to ease into decentralization.

The SEC published a "Framework for 'Investment Contract' Analysis of Digital Assets" in April 2019[17] that used the *Howey* Test, derived from *SEC v. W. J. Howey Co.*,[18] to determine whether a specific token or coin constitutes an "investment contract" that is subject to securities regulations. The first prong of the *Howey* Test is "the investment of money,"[19] which the SEC explains is "typically satisfied in an offer and sale of a digital

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Press Release, U.S. Sec. & Exch. Comm'n, SEC Issues Investigative Report Concluding DAO Tokens, a Digital Asset, Were Securities (July 25, 2017), https://perma.cc/QJ95-7DAK. The SEC made clear that the DAO Report was intended to put the industry on notice, but acknowledged that whether a digital asset was a security would depend on an individualized assessment of "particular facts and circumstances." Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934: The DAO, Exchange Act Release No. 81207, 2017 SEC LEXIS 2194 (July 25, 2017), https://perma.cc/3WC4-HTMY (PDF).

14. Joshua Mapperson, *The SEC Collected $1.26 Billion from Unregistered ICOs in 2020*, COINTELEGRAPH (Nov. 12, 2020), https://perma.cc/E47B-R65V.

15. *See* Marco Dell-Erba, *From Inactivity to Full Enforcement: The Implementation of the "Do No Harm" Approach in Initial Coin Offerings*, 26 MICH. TECH. L. REV. 175, 194–203 (2020) (discussing the transition from relative inaction on the part of the SEC and the Commodity Futures Trading Commission to a state of full enforcement of *existing*, rather than new, securities laws as they apply to ICOs).

16. Although this Article focuses on the regulatory treatment of ICOs in the United States, blockchain-based startups may face similar issues in countries with comparable securities laws. For an overview of ICO regulatory treatment in foreign jurisdictions, see L. BUS. RSCH., GETTING THE DEAL THROUGH: FINTECH (Penny Miller & Angus McLean eds., 2018), LEXIS (database updated 2021).

17. STRATEGIC HUB FOR INNOVATION AND FIN. TECH., U.S. SEC. & EXCH. COMM'N, FRAMEWORK FOR "INVESTMENT CONTRACT" ANALYSIS OF DIGITAL ASSETS (2019) [hereinafter FRAMEWORK FOR DIGITAL ASSETS], https://perma.cc/98Q5-65F6.

18. 328 U.S. 293 (1946).

19. *Id.* at 301.

asset because the digital asset is purchased or otherwise acquired in exchange for value, whether in the form of real (or fiat) currency, another digital asset, or other type of consideration."[20] The second prong is "common enterprise,"[21] which the SEC also typically finds that digital assets satisfy because "the fortunes of digital asset purchasers have been linked to each other or to the success of the promoter's efforts."[22] The third prong of the *Howey* Test is "reasonable expectation of profits to be derived from the . . . efforts of others,"[23] which the SEC identifies as usually "the main issue in analyzing a digital asset . . . ."[24] The SEC further explains that "[w]hen a promoter, sponsor, or other third party . . . provides essential managerial efforts that affect the success of the enterprise, and investors reasonably expect to derive profit from those efforts, then [the third prong] is met."[25]

The SEC's concern is that if an investment is dependent on a third party, information about that third party is necessary to make an informed investment decision, and without a regulatory framework that requires disclosure of that information, uninformed investors are at risk. In the context of digital assets, this inquiry boils down to whether the platform is decentralized. For example, the SEC in 2018 clarified that Bitcoin and Ether—the token that powers the Ethereum network—are not securities because the underlying networks are sufficiently decentralized such that investors are not reliant on any one third party. The SEC has not explained at what point Bitcoin and Ethereum reached sufficient decentralization, and if early investments in Ethereum prior to such sufficient decentralization could be construed as securities.

The SEC and the Department of Justice's (DOJ) Antitrust Division entered into a Memorandum of Understanding (MOU) in June 2020 "to foster cooperation and communication between the agencies with the aim of enhancing competition in the

20. FRAMEWORK FOR DIGITAL ASSETS, *supra* note 17.

21. *W. J. Howey Co.*, 328 U.S. at 298–301.

22. FRAMEWORK FOR DIGITAL ASSETS, *supra* note 17 (citing Sec. & Exch. Comm'n v. Int'l Loan Network, Inc., 968 F.2d 1304, 1307 (D.C. Cir. 1992)).

23. United Hous. Found. v. Forman, 421 U.S. 837, 852 (1975).

24. FRAMEWORK FOR DIGITAL ASSETS, *supra* note 17.

25. *Id.*

securities industry."[26] Despite this working relationship, the SEC's legal framework for cryptocurrencies puts the cart before the horse from a go-to-market perspective, which has implications for competition law priorities. How can a network reach sufficient decentralization without incentivizing third parties to develop, maintain and innovate on that network with tokens? SEC Commissioner Hester Peirce echoed this concern, asking "[h]ow can a token network ever get off the ground if every token distribution event is viewed as a securities offering?"[27]

IV. Antitrust Implications of Progressive Decentralization as Response to ICO Enforcement

The SEC's enforcement actions against ICOs have steered blockchain-based startups away from ICOs and toward a business strategy based on "progressive decentralization."[28] Progressive decentralization is a go-to-market strategy that frontloads product and community development before decentralization objectives.[29] Generally, the progressive decentralization roadmap is divided into three sequential stages. First, a core team of developers design an attractive

26. Press Release, U.S. Sec. & Exch. Comm'n, Securities and Exchange Commission and Justice Department's Antitrust Division Sign Historic Memorandum of Understanding (June 22, 2020), https://perma.cc/NE8E-DN9Q.

27. Hester M. Peirce, Comm'r, U.S. Sec. & Exch. Comm'n, Not Braking and Breaking, Remarks Before the Blockchain Week Event (July 21, 2020), https://perma.cc/L4D2-5X38.

28. *See* Jesse Walden, *Progressive Decentralization: A Playbook for Building Crypto Applications*, ANDREESSEN HOROWITZ (Jan. 9, 2020), https://perma.cc/MG95-5QN3 (describing progressive decentralization as "a process in which founding teams relinquish control by degrees, over time. . . . allow[ing] teams to focus and create a path toward regulatory compliance, including issuing tokens that hopefully will not run afoul of securities regulations").

29. *See id.* ("If you're a crypto founder and are ready for [decentralization], that means you have achieved early product/market fit, built a robust community capable of successfully maintaining the application, and mapped out a model that properly incentivizes sustainable operations.").

product or service.[30] Second, that core team begins to build a community of developers and users for that product or service (i.e., building network effects).[31] Third, and finally, the core team gives ownership of the product or service to the community, typically through a token distribution that, among other things, enables holders to participate in platform governance.[32]

The deal structure for startups embracing progressive decentralization is similar to that of traditional startups. Instead of crowdfunding through an ICO, startups pursue seed funding from venture capital in exchange for equity in the company and a right to receive a share of tokens proportionate to its initial investment if a distribution event occurs.[33] When it comes time to transfer ownership to the community, a percentage of tokens is allocated to investors on a pro rata basis relative to the total tokens allocated to the founders, with both shares diluted, potentially significantly so, to accommodate distribution to the public.[34] This deal structure is a testament to the value created by a token feedback loop. Investors in traditional startups accept dilution of their equity share during subsequent rounds of investments because, in theory, an influx of capital leads to increased production and a higher rate of return. Similarly, investors accept dilution of their ownership in

30. *See id.* ("The earliest stage of building a crypto application requires all the ingredients of a normal startup: a great team, lean development, tight execution, and quick learning. During this phase, the only thing that matters is product/market fit.").

31. *See id.* ("[F]ounders might invest more heavily in best practices for running the product like an open source project: invest in good documentation; develop openly; offer bounties, grants or other incentives for third-party development; hire community leaders to help steward open development; and introduce rough consensus on decision making." (citation omitted)).

32. *See id.* ("The spirit of this objective is to mark a specific moment where a crypto product company completes its journey from traditional product team to sustainable community-owned-and-operated network.").

33. Jamie Goldstein, *Token Equity Convertible (TEC)—a New Way to Invest in Crypto Companies*, PILLAR VC (Dec. 4, 2017), https://perma.cc/B6JK-B5UT.

34. For example, if a venture capital firm invests $1 million for 20 percent equity in the company and a distribution event occurs in which 70 percent of all tokens are distributed to the public, then the venture capital firm would receive 20 percent of the remaining tokens (6 percent), leaving 24 percent for the founders.

a blockchain startup through token distribution because of the increased value that the token feedback loop creates.

Progressive decentralization offers certain strategic benefits that may be missing from an ICO-first approach. Progressive decentralization solves for one of the major inefficiencies associated with an ICO: that, as described above, a substantial portion of ICO purchasers may be speculators that are unlikely to actively participate in the development of a platform. It also prevents companies from launching a product too early, before the core team develops the right product fit that will spur adoption of the technology, one of the biggest hurdles of general consumer use cases for blockchain. As venture capitalist Nick Grossman explained during a DOJ workshop on "Venture Capital and Antitrust," "in the crypto land, you've got things that are public and they're like seed stage products."[35] From a regulatory-risk perspective, it provides an opportunity to try to reach sufficient decentralization prior to issuing a digital asset, mitigating the risk that a token or coin issuance will run afoul of securities laws.

With that said, progressive decentralization does swing the pendulum back toward sponsor-led platforms (at least at the outset) and requires trust that the platform sponsor will, in fact, follow through on its commitments to decentralize. Additionally, the regulatory pitfalls facing ICOs still exist as companies try to execute the third and final stage of a progressive decentralization roadmap: giving ownership to the community. This Part unpacks the antitrust implications of progressive decentralization.

A. Libra and Early Reactions to Progressive Decentralization

Reactions to Libra, a blockchain-based global payments system conceived by Facebook and which endorsed progressive decentralization principles since its inception, provide some insight into how competition regulators may respond to this model. Libra adopted a centralized model early to address technical and regulatory concerns surrounding a fully

35. Nick Grossman, Partner, Union Square Ventures, Remarks at Venture Capital and Antitrust, Public Workshop Held by the Antitrust Division of the United States Department of Justice 74 (Feb. 12, 2020) (transcript available at https://perma.cc/3ERM-BN3J (PDF)).

permissionless payments network.[36] The Libra Association—made up of Facebook and a set group of other companies, including Visa, Mastercard, eBay, Uber, Lyft, and Spotify[37]—would manage Libra and vote on policy decisions. Importantly, the users holding Libra would have no say in governance. Although the Libra blockchain is intended to work independently of Facebook, many suspected that given the important role that Libra's integration with Facebook's existing services will play in driving its adoption,[38] Facebook had significant influence over the other association members.[39]

Right away, this model drew criticism from industry observers.[40] Ethereum Co-Founder Joe Lubin called Libra "a centralized wolf in a decentralized sheep's clothing."[41] Competition regulators also reacted with skepticism, honing in on the ability of the Libra Association's large, incumbent firms to exclude competitors. For example, the European Commission (EC) started investigating "potential anti-competitive behavior" related to the Libra Association just two months after its launch due to reported concerns that "the proposed payment system

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36. *See infra* notes 40–41 and accompanying text.

37. Visa, Mastercard, and eBay, among others, left the Libra Association following regulatory scrutiny of the project. Corinne Reichert & Andrew Morse, *Facebook's Libra Cryptocurrency Loses Support of Five Founding Members*, CNET (Oct. 14, 2020, 1:30 PM), https://perma.cc/Z7G5-2DGV.

38. Enrique Dans, *Libra: An Interesting Idea, If Only Facebook Weren't Involved*, FORBES (June 20, 2019, 3:44 AM), https://perma.cc/2UFA-2WRX ("[W]hen the currency comes into circulation, the vast majority of its users will likely come from the user base of Facebook itself, along with Facebook Messenger and WhatsApp, which will integrate Calibra and allow Facebook to monetize the flotation of those funds.").

39. Clare Duffy, *Facebook Says Libra Is Out of Its Control. But Libra's Overseers Are a Web of Silicon Valley Insiders*, CNN (Sept. 29, 2019, 5:41 PM), https://perma.cc/MH4S-U9X8.

40. Rony Roy, *Is Libra Decentralized? Maybe Not*, COINBEAT (July 31, 2019), https://perma.cc/YT4P-4UPX

> Once again this is a monopoly of the wealthy where the technology that was supposed to free us from the system ends up giving control to a bunch of corporations that are hiding behind the mask of decentralization but is, in fact, more centralized than what we can think of.

41. Joe Lubin, *Facebook's Cryptocurrency Is a Centralized Wolf in Decentralized Sheep's Clothing*, QUARTZ (June 21, 2019), https://perma.cc/J9GL-RE2W.

would unfairly shut out rivals."[42] Specifically, the EC said that it was concerned about how the Libra Association may create "possible competition restrictions" on the information that will be exchanged on the Libra blockchain and the use of Libra consumer data.[43]

The original Libra white paper explained that "an important objective of the Libra Association is to move toward increasing decentralization over time," promising to *start* the transition toward "permissionless governance and consensus on the Libra network" within five years of Libra's public launch.[44] The lack of detail in Libra's decentralization roadmap did little to instill confidence. Thibault Schrepel, a blockchain antitrust scholar, raised concerns that Libra's commitment to move to a permissionless platform was vague and may never come to fruition.[45] Schrepel noted that the Libra white paper made clear that decentralization was dependent on the development of a "proven solution that can deliver the scale, stability, and security needed to support billions of people and transactions across the globe through a permissionless network," which may never occur.[46] It also gave the Libra Association a great deal of discretion over whether any technological solution is sufficient for Libra's purposes. The only public-facing and objective criteria for decentralization was the outside time limit of five years from the date of public launch to start to decentralize. As Lubin explains, Facebook and the rest of the Libra Association "requires our trust that Libra will eventually transition to a more 'permissionless,' decentralized system, whereby anyone can validate the network, rather than the restrictive member evaluation criteria keeping control in the hands of the initial 28

42. Lydia Beyoud & Aoife White, *Facebook's Libra Currency Gets European Union Antitrust Scrutiny*, BLOOMBERG (Aug. 20, 2019, 12:41 PM), https://perma.cc/W22P-D735.

43. *Id.*

44. LIBRA ASS'N MEMBERS, AN INTRODUCTION TO LIBRA 9 (2019) [hereinafter Libra White Paper], https://perma.cc/WJ84-K8DY (PDF).

45. *See* Thibault Schrepel, *Libra: A Concentrate of "Blockchain Antitrust"*, 118 MICH. L. REV. ONLINE 160, 163 (2020) ("[T]he change in governance may never come. One may wonder if such a vague strategy is best for Facebook, considering the distrust surrounding the company.").

46. Libra White Paper, *supra* note 44, at 4; *see* Schrepel, *supra* note 45, at 162–63.

firms."[47] Lubin's comments highlight the dichotomy between Libra and the trustless architecture that is typical of blockchain networks.

Employees of Novi, a Facebook subsidiary and Libra Association member charged with building a Libra-based wallet with WhatsApp and Facebook Messenger integrations, outlined the "questions, decisions, and challenges the Libra Association will face on the journey to permissionless governance and consensus."[48] They acknowledge that "centralized control" and the ability of platform architects (like Facebook) to "change the rules of protocol to their advantage after others have joined" is an area of concern.[49] The Libra Association addresses this concern, they argue, because it is "an independent, not-for-profit entity that no single Founding Member can control," requiring participation by a majority of Libra Association members to make any decision.[50]

Novi employees say that Libra made "irreversible commitments" to achieve the progressive opening of participation in the Libra network, including establishing certain criteria for membership decisions as the Libra Association expands.[51]

> As the technology matures, the Libra Blockchain will transition from relying on the votes based on association membership—in order to operate validator nodes and vote on governance—to relying on ownership of Libra coins. The basic intuition is that at scale the network should be owned by its users and should always evolve in a way to protect their interests and assets.[52]

This Article's focus is on the impact that securities enforcement actions have had on the procompetitive potential of blockchain platforms through a competition law lens, but other regulatory actions have consequences as well. Questions from financial regulators forced Libra, which is now called "Diem," to

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47. Lubin, *supra* note 41.

48. SHEHAR BANO ET AL., CALIBRA, MOVING TOWARD PERMISSIONLESS CONSENSUS 1 (2019), https://perma.cc/3V2Y-RADZ (PDF).

49. *Id.* at 2.

50. *Id.*

51. *Id.*

52. *Id.*

abandon its plan to progressively decentralize to a permissionless network altogether.[53] Specifically, financial regulators questioned how Libra could preserve compliance measures to prevent misuse (e.g., money laundering) after it transitioned to a permissionless system.[54] Instead, Diem pledged to "replicate the key economic properties of a permissionless system through an open, transparent, and competitive market for network services and governance . . . ."[55]

B. Progressive Decentralization Requires Trust That Platform Sponsors Will Actually Decentralize

Decentralization is the linchpin of the procompetitive potential for blockchain-based platforms, as envisioned by competition regulators. Indeed, Nick Grossman captured the sentiment of many competition regulators when he explained that people are worried about sponsor-led platforms like app stores where they could be "cut off," which is why his venture capital firm is "so excited about the crypto and blockchain space because that is one area where the platform is an open, unowned, uncontrolled platform."[56] From Libra's example, it is clear that an unspecified path to decentralization is insufficient to quell the concerns that industry observers and regulators share regarding sponsor-led platforms in the blockchain space. Interestingly, there are a handful of mechanisms (some unique to blockchain) that may help companies address concerns regarding their commitment to decentralization.

Arthur Camara, one of the founders of CryptoKitties, a blockchain-based game, describes a scenario in which a game is run on a smart contract that implements ascending levels of

53. *White Paper v2.0*, DIEM (2020) [hereinafter *Diem White Paper*], https://perma.cc/9CTM-WR5U.

54. *See* Tom Wilson, *Global Money-Laundering Watchdog Closely Monitoring Facebook's Libra, Official Says*, REUTERS (Sept. 10, 2019, 3:05 PM) ("[T]he volume and speed of cryptocurrency transactions presents a growing challenge in pinpointing illegal use, even as technology to identify such actions is developed.").

55. *Diem White Paper*, *supra* note 53.

56. Grossman, *supra* note 35, at 66–67.

decentralization.[57] The first level allows the contract owners to modify gameplay, the second level revokes their ability to modify gameplay but preserves certain other special privileges, and the third level revokes all special privileges assigned to the original contract owner.[58] This means that the game would be fully autonomous, self-executing based on the smart contract's terms without external influence from any party, including the creators.[59] Camara suggests that creators can hold themselves accountable to their progressive decentralization roadmap by implementing time- or block-based maturity, where the smart contract described above ascends levels after a predefined period of time, or at the point that the blockchain passes a certain block number.[60] Founders can also create an economic incentive to decentralize, where the portion of the fee for using the service that the founders retain, or the fee itself, increases with each level of decentralization.[61] Competition regulators appear open to using smart contracts to effectuate behavioral remedies in competition cases, so implementing progressive decentralization through smart contracts might be compelling.[62]

Companies can take other steps to instill confidence within their community that they will follow through on decentralization. For example, blockchain-based startup Compound eliminated the ability for its creators to make sudden

57. Arthur Camara, Dieter Shirley & Grady Mitchell, *Why Progressive Decentralization Is Blockchain's Best Hope*, FREECODECAMP (Feb. 6, 2019), https://perma.cc/A8TY-K6BZ.

58. *Id.*

59. *Id.* ("[P]rogressive decentralization advocates easing into decentralization in stages rather than diving in headfirst. What that looks like is building mechanisms into smart contracts that confer special powers to the creators up front, then incrementally lock those powers away in a transparent and systematic way.").

60. *Id.* ("Lock certain configuration values, revoke the owner's capabilities or move to the next level of maturity past a certain time or block number. Once that point is reached, the contract automatically changes.").

61. *Id.* ("Perhaps the fee rises with each level the developer ascends, locking in at the maximum fee when they reach full decentralization. Or, alternatively, perhaps they make no money at all until full decentralization is in place. This financial reward motivates the developer to reach decentralization at a reasonable pace.").

62. *See* PIKE, *supra* note 1, at 9 ("Depending on the nature of the commitments, [smart contracts] might remove the often-significant ongoing monitoring costs for authorities.").

changes to the platform's rules, implementing a 48-hour waiting period or "time lock" before changes take effect.[63] Compound, a proponent of progressive decentralization, plans to test, in a transparent way, on-chain governance mechanisms that allow the community, instead of the core team, to govern the platform.[64]

There is not one right way to implement a progressive decentralization strategy, and only time will tell how embracing a clear roadmap to community ownership and taking consistent action in line with that goal—such as publishing high-quality, open-source developer materials—may reduce the risk of antitrust scrutiny associated with sponsor-led platforms.

C. The Current Enforcement Environment May Deter Leveraging Existing Ecosystems

Even for companies that forgo ICOs at the product development stage, issuing a token is an integral part of reaching the final stage of progressive decentralization—community ownership—and companies must still consider whether that token constitutes a security. As explained in greater detail above, the third prong of the *Howey* Test focuses on investors' expectations that they will derive profit based on the work of others.[65] The SEC's application of this prong to date complicates the path for blockchain-based platforms that wish to leverage existing ecosystems to spur adoption. In particular, the SEC brought two of its highest-profile ICO enforcement actions against messaging app providers, and a significant factor in each case was the "inextricable" connection between the token and the platform sponsor's messaging app.

In *SEC v. Telegram Group, Inc.*,[66] the SEC argued that Grams, the token at issue, satisfied the second and third prongs of the *Howey* Test because "investors expect[ed] to profit from

63. TechCrunch, *Robert Leshner and Jesse Walden: Deep Dive on Decentralization*, YOUTUBE (June 10, 2020), https://perma.cc/SQ35-KDWS.

64. *Id.*

65. *See supra* notes 23–25 and accompanying text.

66. Sec. & Exch. Comm'n v. Telegram Grp. Inc., No. 19-CV-9439, 2020 U.S. Dist. LEXIS 106592 (S.D.N.Y. June 17, 2020).

Telegram's work," in part due to "integration with Messenger."[67] The SEC explained that "Telegram emphasized to investors . . . that Messenger . . . w[as] integral to the success of the TON blockchain and Grams,"[68] including in its initial offering documents, which stated that "[i]ntegrated into Telegram's applications, the TON Wallet should become the world's most adopted cryptocurrency wallet."[69] Telegram indicated that it would "leverage its existing ecosystem of communities, developers, publishers, payment providers, and merchants to drive demand and value for [Grams]"[70] and that based on the "number of existing Messenger users, Grams would be accessible in 170 million wallets," more than Bitcoin and Ethereum, the two largest cryptocurrencies by market capitalization.[71] Telegram also planned to "airdrop" 250 million Grams to Messenger users following the launch of the TON blockchain.[72]

In *SEC v. Kik Interactive Inc.*,[73] the SEC argued that "Kik promised to start by integrating Kin into Kik Messenger 'to really give it value.'"[74] Kik's CEO purportedly explained at a 2017 conference that "we're setting 30 percent of Kin aside for Kik, as a financial incentive for us basically to put this huge messenger into this ecosystem, and to get this whole ecosystem going."[75] Kik's white paper stated that Kik would "leverage its large existing user base to drive mass adoption" of Kin, and that "Kik will build fundamental value for the new currency by integrating Kin into its chat app."[76] Kik explained that it would

67. Complaint at 2, *Telegram Group*, 2020 U.S. Dist. LEXIS 106592 (No. 19-CV-9439) [hereinafter Telegram Complaint], https://perma.cc/5WS7-9ZKS (PDF).

68. *Id.* at 15.

69. *Id.* at 17.

70. TELEGRAM OPEN NETWORK (TON), ICO WHITEPAPER 5, https://perma.cc/T4FX-PZTN; Telegram Complaint, *supra* note 67, at 23.

71. *Id.* at 21.

72. *Id.* at 27.

73. Sec. & Exch. Comm'n v. Kik Interactive Inc., No. 19-cv-5244, 2020 U.S. Dist. LEXIS 181087 (S.D.N.Y. Sept. 30, 2020).

74. Complaint at 16, *Kik Interactive*, 2020 U.S. Dist. LEXIS 181087 (No. 19-cv-5244) [hereinafter Kik Complaint], https://perma.cc/8QER-SSZA (PDF).

75. *Id.* at 30.

76. *Id.* at 34.

integrate digital wallets for each Kik Messenger account to enable "common wallet interactions," and would explore changes to Kik that would support Kik users buying and selling goods using Kin.[77]

It is unclear at what point—if at all—a decentralized network leveraging an existing sponsor-led ecosystem or service can safely issue a token without violating securities laws. This is problematic for blockchain advocates who believe that integration with existing products is the only way to achieve mass adoption in the near future and for competition regulators, because adoption is the only way for these platforms to compete.

In addition to securities laws, companies must consider whether a business strategy to leverage an existing ecosystem gives rise to antitrust claims on abuse of dominance grounds. There has been a recent uptick in dominance investigations into messaging services integrating digital payment services.[78] Competition regulators may raise similar concerns about the integration of token economies and wallets with messaging platforms or other services.

D. Progressive Decentralization May Lead to Consolidation

Competition regulators pay close attention to incumbent firms eliminating competitive threats through acquisition, and that is especially true for new and potentially disruptive technologies.[79] Facing public scrutiny for allowing digital platforms to acquire nascent competitors, competition regulators are likely to be especially protective of blockchain as an innovative and potentially disruptive technology. Securities

77. *Id.*

78. Antitrust regulators in India and Brazil investigated, but ultimately did not take action against Facebook's launch of WhatsApp Pay. *See India Watchdog Throws Out Antitrust Complaint against WhatsApp*, REUTERS (Aug. 19, 2020, 5:29 AM), https://perma.cc/U3WK-CB52; Carolina Mandl, *Brazil Antitrust Agency Revokes Decision Blocking WhatsApp, Cielo Venture*, REUTERS (June 30, 2020, 5:57 PM), https://perma.cc/YM4H-7JLK. Facebook also intends to leverage its Messenger and WhatsApp services to drive Diem's adoption.

79. Then-head of the DOJ's Antitrust Division, former Assistant Attorney General Makan Delrhaim stated that "[w]e cannot fall behind and learn, only too late, that entrenched monopolists have taken anticompetitive actions to eliminate the threat from blockchain technology to their business models." Delrahim, *supra* note 1.

enforcement actions that have steered companies toward progressive decentralization may have made that mission more difficult. Progressive decentralization increases the likelihood that a new blockchain startup—or an existing company that is integrating blockchain in an attempt to differentiate its product or platform from competitors—will be strategically acquired by an incumbent firm because it attracts private investors that may prefer an M&A exit strategy over an ICO. As venture capital firm Kesha Ventures explains, after the increase in regulatory enforcement against ICOs, "[m]any new blockchain focused companies . . . are choosing to stay private for much longer . . . or ICO/list only in a much later stage, maintaining M&A as a viable exit option."[80] For companies that may not be able to secure private investment in the first place, and for which legally conducting an ICO is too difficult, they may have to leave the market altogether. This reduces competition.

Kik, for example, turned to an ICO after it was unable to find a buyer for the business. According to the SEC's complaint, Kik hired an investment bank to orchestrate a sale process. Seven buyers expressed interest in Kik but ultimately declined to buy the company.[81] Kik's CEO stated that engaging in an ICO was a necessity because "[Kik] cannot compete with Facebook."[82] In response to the SEC's complaint, Kik explained that its costs exceeded revenues "as a result of struggling to compete with larger social media companies, who have a dominant share of the market for advertising within mobile applications."[83] Kik ultimately shut down its messaging app during the pendency of the SEC litigation in an effort to divert resources to its legal defense.[84]

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80. Michael Nov, *The Potential of Crypto M&A*, KESHA VENTURES (May 8, 2018), https://perma.cc/T8YQ-29U6.

81. Kik Complaint, *supra* note 74, at 10.

82. *Id.* at 30.

83. Answer to Complaint at 7, *Kik Interactive*, 2020 U.S. Dist. LEXIS 181087 (No. 19-cv-5244) (citation omitted).

84. Ted Livingston, *Moving Forward Boldly with Kin*, TED LIVINGSTON (Sept. 23, 2019), https://perma.cc/23GN-4BAQ.

V. Recommendations

Blockchain technology and its use cases are still developing, and so too is the regulatory response to blockchain-based platforms. This Article proposes two recommendations for consideration in light of the apparent tension between the priorities for securities regulators on the one hand and competition regulators on the other.

First, competition regulators should consider the current regulatory dynamics that are shaping the blockchain market when considering whether to investigate conduct or initiate an enforcement action. For example, competition regulators should realize that the current regulatory environment may force a company to delay decentralization and instead adopt a sponsor-led model. This could take a handful of forms, including an association of companies that control the platform in its early days. Competition regulators should carefully consider a project's progressive decentralization roadmap, and the mechanisms in place to ensure decentralization is achieved, before reacting negatively to the involvement of an incumbent firm in a blockchain project or other sponsor-led platform dynamics. Additionally, competition regulators should thoughtfully consider whether leveraging an existing ecosystem (e.g., a messaging app) will actually lead to *de facto* control over the blockchain platform, or if such product integration is merely one step in the progressive decentralization roadmap. Integrating blockchain technology with an existing product or service is one of the most likely ways to achieve mass adoption of blockchain at an early stage and to more quickly realize its procompetitive benefits.

Second, regulators and policymakers should strive to resolve the tension that exists between the actions of securities and competition regulators. To date, the SEC has largely regulated the blockchain and cryptocurrency community through enforcement actions. An alternative approach is to implement rules and guidelines that take into account feedback from stakeholders. The clarity of rules over fact-specific enforcement actions would bring a degree of certainty that is currently missing from the market. Additionally, the SEC and the DOJ can use their MOU as a framework to better align their objectives as it relates to the future of blockchain platforms.

Lastly, policymakers should seek to clarify laws and regulatory mandates that give rise to the tension in the first place.

VI. Conclusion

SEC enforcement actions are in tension with competition regulators' procompetitive vision for blockchain-based platforms. These actions make it more difficult to solve the incentives problem that blockchain platforms face and steer companies toward a sponsor-led model via progressive decentralization, which competition regulators have challenged with increasing regularity. In addition to impeding the realization of decentralization objectives, the SEC's enforcement actions complicate the use of existing ecosystems to spur adoption of blockchain technology that could otherwise increase competition. They also increase the likelihood that young blockchain companies may be acquired by firms incumbent to the industry that they intend to disrupt, which could reduce competition. Considering the consequences that SEC enforcement actions are having on the competitive dynamics of blockchain companies, regulators should carefully review how enforcement actions may affect blockchain companies, and how to resolve this tension moving forward.