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From Inactivity to Full Enforcement: The Implementation of the "Do No Harm" Approach in Initial Coin Offerings

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FROM INACTIVITY TO FULL ENFORCEMENT: THE IMPLEMENTATION OF THE “DO NO HARM” APPROACH IN INITIAL COIN OFFERINGS

*Marco Dell’Erba**

This Article analyzes the way the Securities and Exchange Commission (“SEC”) has enforced securities laws with regard to Initial Coin Offerings (“ICOs”). In a speech held in 2016, the U.S. Commodities Futures Trading Commission (“CFTC”) Chairman Christopher Giancarlo emphasized the similarities between the advent of the blockchain technology and the Internet era. He offered the “do no harm” approach as the best way to regulate blockchain technology. The Clinton administration implemented the “do no harm” approach at the beginning of the Internet Era in the 1990s when regulators sought to support technological innovations without stifling them with burdensome rules.

This Article suggests that the SEC adopted a “do no harm approach” and successfully pursued two of its fundamental institutional goals when enforcing securities laws in the context of ICOs: investor protection and preservation of capital formation. After providing a brief description of the basics of ICOs and the way they have evolved in the last two years, this Article examines the transition into a new phase of full enforcement action implemented by the SEC. This shift from inactivity to enforcement was gradual, characterized by clearly identifiable steps. Data on ICOs demonstrates that this rigorous enforcement of securities laws has not damaged the industry in the United States and may suggest that entrepreneurs have adapted to this enforcement approach. By contrast, a lack of enforcement would have probably increased uncertainty to the detriment of investors and entrepreneurs and put the UNITED STATES at a disadvantage in the international arena. Furthermore, this paper emphasizes the importance of pursuing specific goals in the short-to-medium term, particularly in order to make securities regulation uniform and avoid differences at the state and federal levels, as well as

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to encourage industry authorities such as Self-Regulatory Organizations (SROs) to develop high standards for self-regulation.

INTRODUCTION	176
I. INITIAL COIN OFFERINGS	180
A. <i>Main Features and Mechanics</i>	180
B. <i>The Fragmentation of the Original Model: Recent Trends (ICOs, Initial Supply Auctions, RICOs, SAFT, Airdrops, and STOs)</i>	184
1. Interactive Initial Coin Offering (“IICO”)	185
2. Initial Supply Auction	187
3. Simple Agreement for Tokens (“SAFT”)	187
4. Airdrops	188
5. Security Token Offering (“STO”)	188
6. Reversible ICO (“RICO”)	190
II. THE ROLE OF THE SECURITIES AND EXCHANGE COMMISSION	190
A. <i>The “Do No Harm” Approach: CFTC vs. SEC</i>	190
B. <i>Shifting From Inactivity to Full Enforcement</i>	195
1. The Stages of Intervention	195
2. First Stage: The DAO Report and ICO Tokens as Securities	198
3. Second Stage: Going Beyond the Semantics of Phrases in the <i>REcoin</i> and <i>Munchee</i> Cases	199
4. Third Stage: Collaboration with “Market Professionals, and Especially Gatekeepers”	129
5. Fourth Stage: Infrastructures Supporting ICOs, Tokens, and Cryptocurrencies, Including Broker-Dealers and Digital Asset Hedge Funds	204
6. Additional Initiatives by Other Authorities	207
III. POLICY CONSIDERATIONS OF SEC ENFORCEMENT	208
A. <i>The Positive Consequences of SEC Enforcement Strategies</i>	208
B. <i>Potentially Negative Effects to Be Addressed</i>	216
C. <i>Current Developments</i>	221
1. Token Taxonomy Act	221
2. Stablecoins	224
CONCLUSION	226

INTRODUCTION

In recent decades, significant technological innovations, though welcomed by the financial sector, have posed new challenges for regulators. Many envision blockchain, a recent example of technological innovation, as

reshaping financial markets and commercial practices. The technology utilizes a distributed database to hold a secure and immutable record of past transactions. This technology has the potential for a broad range of uses. In the context of entrepreneurial finance, Initial Coin Offerings (“ICOs”) have emerged as a disruptive trend in capital formation, with a view to further disintermediating the traditional banking system as well as private funds, in particular venture capital.¹

Technological (infrastructural) innovations, such as blockchain, may be distinguished from traditional financial innovation. Financial innovation is a systematic and constant trend in finance: although it varies in its intensity, financial innovation has always existed. An example of financial innovation as a constant element in all eras is the development of the so-called *Commenda* in the Middle Ages, the antecedent of modern investment trusts and private funds, created with the purpose of diversifying risk.²

As opposed to systematic financial innovation, the implementation of totally new technologies and infrastructures happens at a more recognizable and specific time “Zero.” The Internet is a clear example of infrastructural technology. The so-called Internet era started exactly twenty-five years ago as a mass phenomenon, when the European Center for Nuclear Research (“CERN”) made the most famous software associated with it (the “world wide web”) free, renouncing any rights to the software protocols created by its researcher Tim-Berners Lee. The creation and the mass adoption of the Internet represented a disruptive event and clearly displayed significant consequences in terms of the interconnection and rapidity of the financial markets, coupled with significant economies of scale.

Similar to the Internet revolution, Distributed Ledger Technology (“DLT,” commonly known as blockchain technology) attempts to reshape financial markets, enhancing the construction of a markedly disintermediated model, where the technology theoretically eliminates the need of established institutions operating as central validators. Blockchain is part of a broader trend in the financial sector: the rise of Fintech.³ A common trait of

1. See generally Marco Dell’Erba, *Initial Coin Offerings: The First Response of Regulatory Authorities*, 14 N.Y.U. J.L. & BUS. 1109 (2018).

2. The *Commenda* was an act on behalf of, but not in the name of, another. The *commendator* conferred to a *tractator*, generally a merchant, an amount that had to be employed for a certain time to pursue a performance, so that the *commendator* could have a gain. The *tractator* had full managerial powers. For a historical perspective, see Henry Hansmann, Rainer Kraakman & Richard Squire, *Law and the Rise of the Firm*, 119 Harv. L. Rev. 1335, 1372–74 (2006); see also Harold J. Berman, *Law and Revolution: The Formation of the Western Legal Tradition* 352 (1983); Robert Yee, *Financial Innovation and Commenda Contracts in Medieval Europe*, VAND. HIST. REV. (Oct. 30, 2016), <http://vanderbilthistoricalreview.com/financial-innovation-and-commenda-contracts>.

3. Fintech, a term coined in 1990, refers to any technological application to deliver financial solutions. See Douglas W. Arner, János Barberis & Ross P. Buckley, *The Evolution of Fintech: A New Post-Crisis Paradigm?* (Univ. of Hong Kong Faculty of Law, Research

Fintech companies is that they combine digital technologies with financial services and consumer finance in innovative ways. The Fintech sector is highly diverse. Some of them open up new markets in the financial industry; others offer new solutions for existing products or services offered by banks, asset managers, or insurance companies. The entities and activities summarised under the “Fintech” label are as diverse as the regulations to which they are subject. Indeed, some of the technological innovations from these providers have created new financial products and services that escape the current regulatory perimeter (so-called “sector-transcending” innovation).

When referring to technological transformation that leads to epochal changes, regulators face two problems corresponding to two different and potentially conflicting goals.

The first problem is of a strictly legal nature: regulators have to consider the applicability of the existing legal framework to the new technology and the possibility or feasibility of enacting new regulation.⁴ Blockchain, in particular, helped exaggerate the disparity between the linear rate of regulation and the exponential rate of technological development. This phenomenon requires a reassessment of the role of legal definitions—how they are elaborated, structured (i.e., broad versus specific legal categories), and interpreted. This problem is of absolute relevance in the context of initial coin offerings (“ICOs”). Indeed, SEC Chairman Jay Clayton and CFTC Chairman Christopher Giancarlo emphasized this in a joint statement, tackling the issue from the perspective of the cryptocurrency market:

A key issue before market regulators is whether our historic approach to the regulation of currency transactions is appropriate for the cryptocurrency markets. Check-cashing and money-transmission services that operate in the U.S. are primarily state-regulated. Many of the internet-based cryptocurrency trading platforms have registered as payment services and are not subject to direct oversight by the SEC or the CFTC. We would support policy

Paper No. 2015/047, 2015); Mark Hochstein, *Fintech (the Word, That Is) Evolves*, AM. BANKER (Oct. 5, 2015, 7:12 PM), <http://www.americanbanker.com/bankthink/fintech-the-word-that-is-evolves-1077098-1.html>; see also Douglas W. Arner, János Barberis & Ross P. Buckley, *FinTech, RegTech and the Reconceptualization of Financial Regulation*, 37 NW. J. INT’L L. & BUS. 371, 406–07 (2017); Chris Brummer, *Prologue to Daniel Gorfine, FinTech Innovation: Building a 21st Century Regulator*, IIEL ISSUE BRIEF, Nov. 2017, at 2, 3. Here the author identifies peculiar characteristics of today’s Fintech when comparing it with its predecessors.

4. The two different positions on the need for new regulations can be traced in Frank H. Easterbrook, *Cyberspace and the Law of the Horse*, 1996 U. CHI. LEGAL F. 207, 208 (1996), and Lawrence Lessig, *The Law of the Horse: What Cyberlaw Might Teach*, 113 HARV. L. REV. 501, 502 (1999).

efforts to revisit these frameworks and ensure they are effective and efficient for the digital era.⁵

From a broader perspective, a second challenge for regulators is figuring out how to avoid frustrating the potential adoption of the new technological innovation when considering the application of existing regulation or the enactment of a new regulatory framework. Even in this sense, Internet technology offers a valuable precedent; at the beginning of the Internet era, the Clinton administration explicitly referred to a “do no harm” approach. This regulatory approach of not stifling technological innovation with burdensome regulation proved to be the best, and it had positive consequences for the American economy, increasing the amount of investments in the Internet’s infrastructure, and favoring “a rapid expansion in access that supported swift deployment and mass adoption of Internet-based technologies.”⁶

Although the law is necessary to the creation of a healthy environment where technology could prosper, the two perspectives may be in conflict and the right balance between the two might be difficult to achieve. Intuitively, the best way to promote legal certainty may be the extension of existing regulation. However, such an extension may frustrate technological innovation, especially when technology theoretically leads to the creation of a new concept contrasting with the existing regulation. Similarly, the alternative of providing an “ad-hoc” regulation may prove to be burdensome and contribute to fragmentation of the existing regulatory framework, also affecting the development of the new technology.

Further, the tension between the two perspectives is emphasized by Giancarlo and Clayton when taking into account the two underlying interests corresponding to two different (but complementary) missions of securities agencies like the SEC: investor protection and capital formation. Such tension emerges in the joint statement by Giancarlo and Clayton.

On that basis, this Article explores the way the SEC shifted from an initial phase of inactivity to a new phase of full enforcement, highlighting specific advantages and disadvantages of this strategy. Part I provides a brief description of ICOs, what they are, and how they evolved. Part II considers the problem of technological innovation from the perspective of regulators and lays out the meaning of a “do no harm approach” in the context of

5. Jay Clayton & J. Christopher Giancarlo, *Regulators Are Looking at Cryptocurrency*, WALL ST. J. (Jan. 24, 2018, 6:26 PM), <https://www.wsj.com/articles/regulators-are-looking-at-cryptocurrency-1516836363>.

6. Christopher Giancarlo, Chairman, Comm. Fut. Trading Comm’n, Written Testimony Before the Senate Banking Committee 13 (Feb. 6, 2018), https://www.banking.senate.gov/public/_cache/files/d6c0f0b6-757d-4916-80fd-a43315228060/A2A6C1D8DDBB7AD33EBE63254D80E9E3.giancarlotestimony-2-6-18b.pdf.

ICOs. It also considers the enforcement of the SEC towards ICOs. Part III analyzes the pros and cons of such enforcement.

I. INITIAL COIN OFFERINGS

A. Main Features and Mechanics

ICOs have emerged as a revolutionary tool for entrepreneurial finance,⁷ facilitating and accelerating the critical phase of capital formation, bypassing traditional banks and venture capitalists. ICOs respond to the need for entrepreneurs (especially those engaged in the creation of highly innovative start-ups) to find new sources of capital to finance their new ventures. In an economic era characterized by a significant financial crisis, coupled with more stringent regulation (in particular Basel II and Basel III)⁸, access to funding for new ventures became much harder than in the past. This complex situation led to the phenomenon of banking disintermediation,⁹ with the emergence of the shadow banking system,¹⁰ and a contextual and gradual inclusion of small investors through crowdfunding or peer-to-peer lending, with the venture capital industry unable to innovate its basic paradigms for a long time.¹¹

Despite their perceived similarities to Initial Public Offerings (“IPOs”) and crowdfunding campaigns on platforms such as Kickstarter and Indie-

7. Sabrina Howell, Marina Niessner & David Yermack, *Initial Coin Offerings: Financing Growth with Cryptocurrency Token Sales 2* (European Corp. Governance Ins., Finance Working Paper No. 564/2018, 2018).

8. In particular, Basel III has exercised a higher pressure on banks and their Return on Equity (RoE) by increasing capital requirements and risk weighted assets. See EUR. BANKING AUTH., OVERVIEW OF THE POTENTIAL IMPLICATIONS OF REGULATORY MEASURES FOR BANKS’ BUSINESS MODELS 13 (2015), <https://www.eba.europa.eu/documents/10180/974844/Report+-+Overview+of+the+potential+implications+of+regulatory+measures+for+business+models.pdf/fd839715-ce6d-4f48-aa8d-0396ffc146b9>.

9. Banking disintermediation typically occurs when corporations obtain funding from sources other than banks, whether funding is provided from non-bank lenders or by issuing bonds. For an analysis of the transformations at the level of market structures banking disintermediation, see Steven L. Schwarcz, *Regulating Shadow Banking*, 31 REV. BANKING & FIN. L. 619, 622–23 (2012); Charles K. Whitehead, *The Evolution of Debt Covenants, the Credit Market, and Corporate Governance*, 34 J. CORP. L. 101, 133 (2009).

10. For a definition of shadow banking, see Steven L. Schwarcz, *supra* note 9 at 620. On the role of shadow banking in relation to banking disintermediation, see Steven L. Schwarcz, *Banking and Financial Regulation*, in THE OXFORD HANDBOOK OF LAW AND ECON. 2, 2 (Francesco Parisi ed., 2015).

11. See Dinis Guarda, *The Cryptocurrency Economy: ICOs, Blockchain, Financial Inclusion*, BITDEAL (June 16, 2017), <https://blog.bitdeal.co/the-cryptocurrency-economy-icos-blockchain-financial-inclusion-ceb3e7e6b871>.

gogo,¹² ICOs have distinct features that render this initial comparison misguided. ICOs involve the sale of a stake in a project with the aim to raise funds¹³ at an early stage of development. Although ICOs share some similarities with both IPOs and crowdfunding campaigns, they nonetheless differ from both.

In comparison with IPOs, where companies sell stocks via regulated exchange platforms, ICOs sell digital coupons, so-called “software presale tokens,” to early investors via non-regulated exchange platforms. The issuance of tokens occurs through an indelible distributed ledger¹⁴ in the form of an organization’s cryptocurrency¹⁵ (clones of Bitcoin,¹⁶ created on protocols such as Counterparty, Ethereum, or Openledger). These tokens create the capital inflow required for project finance,¹⁷ and can be purchased online with fiat currency or another digital currency at a predetermined exchange rate.¹⁸ Tokens do not generally confer ownership rights, as common stocks available in an IPO would. Instead of the ownership right itself, a token offers a discount on cryptocurrency before it hits the exchanges but after the ICO is launched (this may be an argument against defining them as “securities”),¹⁹ and a right to vote on future decisions.²⁰ Some ICOs provide for different categories of participation (or levels of membership) such as voting member, founding member, third party service provider member, and asset gateway member.²¹

12. See Josh Finer, *How Blockchain Startups Are Driving an Under-the-Radar Fundraising Boom*, VENTUREBEAT (Nov. 13, 2016, 9:05 AM), <https://venturebeat.com/2016/11/13/how-blockchain-startups-are-driving-an-under-the-radar-fundraising-boom>.

13. Maria Fonseca, *ICOs and Blockchain Token Funding*, INTELLIGENTHQ (May 5, 2017), <https://www.intellighq.com/finance/icos-and-blockchain-token-funding>.

14. *The Market in Initial Coin Offerings Risks Becoming a Bubble*, THE ECONOMIST (Apr. 27, 2017), <http://www.economist.com/news/finance-and-economics/21721425-it-may-also-spawn-valuable-innovations-market-initial-coin-offerings>.

15. Brandon Kostinuk, *Too Many Crypto Coin Crowd Sales Could Crowd Out True Innovators*, AM. BANKER (June 29, 2016, 12:00 PM), <https://www.americanbanker.com/opinion/too-many-crypto-coin-crowd-sales-could-crowd-out-true-innovators>.

16. Paul Vigna, *How a Bitcoin Clone Helped a Company Raise \$12 Million in 12 Minutes*, WALL ST. J. (May 17, 2017, 5:49 PM), <https://www.wsj.com/articles/how-a-bitcoin-clone-helped-a-company-raise-12-million-in-12-minutes-1495018802>.

17. *Id.*

18. Kostinuk, *supra* note 15.

19. See Richard Kastelein, *Initial Coin Offerings (ICOs) Can Disrupt Both Traditional VC and Equity Crowdfunding*, INTELLIGENTHQ (Mar. 31, 2017), <https://www.intellighq.com/finance/initial-coin-offerings-icos-can-disrupt-vc-and-equity-crowdfunding>.

20. Ben Dickson, *Can You Trust Crypto-Token Crowdfunding?*, TECHCRUNCH (Feb. 12, 2017, 1:00 PM), <https://techcrunch.com/2017/02/12/can-you-trust-crypto-token-crowdfunding>.

21. For example, OpenANX, a cryptocurrency exchange, provides for the following types of investors:

Unlike crowdfunding campaigns, ICOs cannot be purely qualified as donations,²² but more generally constitute a financial stake in the company,²³ including, as mentioned above, the right to vote on future decisions.²⁴ Therefore, ICOs have a clear speculative purpose, consisting of a trade in material value developed on platforms and cryptocurrencies, distinguishing them from campaigns conducted on Kickstarter.

Although ICOs are a rather recent phenomenon, a structural pattern has emerged.²⁵ In the first stage (pre-launch), such initiatives are generally announced on cryptocurrency forums (such as Bitcoin Talk, Cryptocointalk, and Reddit). This announcement is followed by an executive summary to present the project to investors, which solicits specific comments on the project. These comments are considered in the subsequent drafting of an offering memorandum (in the form of a white paper),²⁶ which provides more detailed information to help potential investors assess the project, including, importantly, the key terms, investment strategy, criteria, restrictions, processes, and returns.²⁷ Whitepapers are not submitted to any authority, nor are they required to comply with any minimum disclosure standard provided by any authority. Thus, these preliminary steps are crucial for building general market credibility and investor trust in the soundness of the project. In

Membership provides the holder with access to the openANX platform and may convey voting privileges and other benefits as outlined below. The memberships will work through a tiered structure that allow for simple access, voting privileges or commercial (read: business) solicitation of services on the platform (e.g. escrow, legal, exchange, credit, asset gateway) with the relative number of tokens required for redemption varying with the level of benefits.” Clause 5.2 further defines Voting membership and Founding membership. With regard to the former, it states that “A voting member shall have the privilege to vote on decisions regarding the openANX platform. These votes shall be determined via the Foundation’s terms and shall be communicated to the Membership through the Foundation’s website (www.openanx.org) and via social media and online channels.” With regard to latter, it provides that “a founding member shall have all the privileges of a voting member. In addition, a founding member shall have the right to suggest topics for upcoming discussions.

HUGH MADDEN ET AL., OPENANX – REAL WORLD APPLICATION OF DECENTRALIZED EXCHANGES 18, 19 (V2.3.8 2017), https://www.oax.org/whitepapers/openANX_White_Paper_ENU.pdf.

22. See *What is a Token Sale (ICO)?*, SMITH + CROWN (June 21, 2016), <https://sci.smithandcrown.com/research/what-is-a-token-sale>.

23. Ben Dickson, *What Is an Initial Coin Offering (ICO)?*, TECHTALKS (Dec. 7, 2016), <https://bdtechtalks.com/2016/12/07/what-is-an-initial-coin-offering-ico>.

24. Dickson, *supra* note 20.

25. In the sense of the identification of four different phases, see Roger Aitken, *Investment Guide To “Crypto” Coin Offerings Rating Blockchain Startups*, FORBES, (Jan. 6, 2017, 11:13 AM), <https://www.forbes.com/sites/rogeraitken/2017/01/06/investment-guide-to-crypto-coin-offerings-rating-blockchain-startups/#614e6940121b>.

26. *Id.*; Fonseca, *supra* note 13.

27. See Fonseca, *supra* note 13.

this sense, the draft of a yellow paper where the technical specificities are provided is of paramount importance in supporting the project at this early phase. In this first stage, a preliminary offer is made to selected investors.²⁸ After the signing of the offer, the launch of the ICO is announced and a PR campaign targeting a broader segment of investors (typically including small investors) begins.²⁹ Next, the ICO is launched and the new venture sells its own cryptocurrency to be used with its software, even before the software is written,³⁰ though the company may have a proof of concept or an alpha version before starting the token sale, and sometimes even a beta version as in the case of Storj.³¹ The collection of funds in Bitcoin is a common practice and may be implemented in two ways, either by employing a public address, allowing the participants to send Bitcoin from an address they control the private key for, or alternatively assigning to each of them a unique/individual Bitcoin address after creating an account for each of them.³² A best practice is to make public a multi-signature address (a specific type of digital signature allowing two or more users to sign a document as a group) where all the funds are ultimately held.³³ This round of fundraising (usually, there is only one) occurs before the startup has launched its project. However, the duration of an ICO may vary depending on the success of the entrepreneurial initiative among the investors: the most successful ICOs have been concluded in a few minutes.

Lastly, digital tokens are listed on cryptocurrency exchanges for trading. At present, there are forty exchanges around the world that serve as secondary markets where cryptocurrencies can be traded for Bitcoins in an open marketplace.³⁴ A cryptocurrency's pre-ICO price is arbitrarily determined by the start-up team that structured the ICO,³⁵ whereas the post-ICO price dynamics are determined by the market supply and demand. This is consistent with the decentralized functioning of blockchain technology, considering that the network of participants, instead of a central authority or

28. Aitken, *supra* note 25.

29. *Id.*

30. Finer, *supra* note 12.

31. Trond Vidar Bjorøy, *Blockchain Fundings Are Trendy, But We're Still in the Wild West Days*, VENTUREBEAT (May 14, 2017, 4:54 PM), <https://venturebeat.com/2017/05/14/blockchain-fundings-are-trendy-but-were-still-in-the-wild-west-days>.

32. Sid Kalla, *A Framework for Valuing Crypto Tokens*, COINDESK (Mar. 4, 2017, 1:33 PM), <https://www.coindesk.com/framework-valuing-crypto-tokens>.

33. Ben Davenport, *What is Multi-Sig, and What Can It Do?*, COINCENTER (Jan. 1, 2015), <https://coincenter.org/entry/what-is-multi-sig-and-what-can-it-do>.

34. Tim Lea, *Venture Capital 3.0: The Initial Coin Offering Explained*, FINANCIAL REVIEW (May 3, 2017, 11:00 PM), <http://www.afr.com/technology/venture-capital-30-the-initial-coin-offering-explained-20170502-gvxhos>.

35. Richard Kastelein, *What Initial Coin Offerings Are, and Why VC Firms Care*, HARV. BUS. REV. (Mar. 24, 2017), <https://hbr.org/2017/03/what-initial-coin-offerings-are-and-why-vc-firms-care>.

government, sets the price.³⁶ Successful entrepreneurial activities increase the price of the tokens, granting profitable returns to investors,³⁷ but the tokens' price will fall if the start-up fails.

B. *The Fragmentation of the Original Model: Recent Trends
(ICOs, Initial Supply Auctions, RICOs, SAFT,
Airdrops, and STOs)*

A significant last few months has transformed the ICO market. Notwithstanding concerns over its credibility and legitimacy,³⁸ the issuance in February 2018 of Petro by the Venezuelan government proved that ICOs may theoretically be applied not only to entrepreneurial finance but also to public finance. The (incomplete) ICO of Telegram³⁹ and, even more importantly, the 4 billion-dollar ICO of Block.one⁴⁰ led to a growth in terms of size of the ICOs, emphasizing their role as a clearer and more direct competitor to IPOs.

From a structural perspective, ICOs continue to evolve in order to optimize this method of fundraising, increasing their efficiency while correcting the problems that emerge.⁴¹ Recently, ICOs switched from an “uncapped” to a “capped sale” model, to then adopting the so-called “reverse Dutch auction” model (Gnosis ICOO was the first to adopt the “reverse Dutch auction”).⁴² In an uncapped sale, the quantity of tokens sold to the public is not predetermined (as was the case with the sale of Ethereum). Criticism directed at uncapped sales⁴³ caused a shift towards “capped sales,”⁴⁴ which

36. *Id.*

37. *See The Market in Initial Coin Offerings, supra* note 14; *see also* Charles Dearing, *Rule of Thumb For ICO Investor: Explore Risks Involved*, COINTELEGRAPH (June 9, 2017) <https://cointelegraph.com/news/rule-of-thumb-for-ico-investor-explore-risks-involved>.

38. Komfie Manalo, *Petro ICO Reportedly Rakes In \$5B for Venezuela*, CRYPTOVEST, <https://cryptovest.com/news/petro-ico-reportedly-rakes-in-5b-for-venezuela>.

39. Paul Vigna, *Telegram Messaging App Scraps Plans for Public Coin Offering*, WALL ST. J. (May 2, 2018, 1:25 PM), <https://www.wsj.com/articles/telegram-messaging-app-scraps-plans-for-public-coin-offering-1525281933>; *see also* Jon Russell & Mike Butcher, *Telegram's Billion-Dollar ICO Has Become a Mess*, TECHCRUNCH (May 3, 2018, 10:34 AM), <http://techcrunch.com/2018/05/03/telegrams-billion-dollar-ico-has-become-a-mess>.

40. Kate Rooney, *A Blockchain Start-Up Just Raised \$4 Billion Without a Live Product*, CNBC (May 31, 2018, 12:26 PM), <https://www.cnn.com/2018/05/31/a-blockchain-start-up-just-raised-4-billion-without-a-live-product.html>.

41. Dell'Erba, *supra* note 1, at 1116.

42. *Id.* at 1116-17.

43. *See* Vitalik Buterin, *Analyzing Token Sale Models*, VITALIK BUTERIN'S WEBSITE (June 9, 2017), <http://vitalik.ca/general/2017/06/09/sales.html>. The author explains that “Uncapped sales” were perceived somewhat as an expression of “greed” of their promoters, and additionally, from an investor perspective, a major concern was related to their exposure to the “high uncertainty about the valuation” of what they were buying.

44. *Id.*

emerged as the dominant structure between 2016 and 2017. This paragraph provides an analysis of the different ICO structures emerging from practice.

1. Interactive Initial Coin Offering (“IICO”)

The Interactive Initial Coin Offering (“IICO”) was first proposed by Vitalik Buterin, Jason Teutsch, and Christopher Brown⁴⁵ to make token sales more egalitarian for large and small buyers in an effort to design a more fair model of ICO⁴⁶ by preventing “the sort of FOMO and gas wars that can result in whales getting all the tokens and squeezing out investors of humbler means.”⁴⁷ IICOs were qualified as “interactive” because contributors may opt to enter and exit the crowdsale based on the behaviors of other participants,⁴⁸ leading to a valuation equilibrium.⁴⁹

Kleros is an example of a blockchain start-up implementing an IICO.⁵⁰ As Buterin emphasized, “No token crowdsale satisfies that both: (i) a fixed amount of currency buys at least a fixed fraction of the total tokens, and (ii) everyone can participate.”⁵¹ IICOs promise to level the playing field between small and large investors, distinguishing IICOs from capped and uncapped sales.⁵² Uncapped token sales have extremely high uncertainty in their valuation,⁵³ due to the unknown total available supply. Therefore, it may be extremely difficult to quantify the value of an individual token in relation to the total.⁵⁴ On the other hand, capped token sales make participation harder due to the risk that token sales may be “oversubscribed, and so there is a large incentive to getting in first.”⁵⁵

IICOs promise to improve the certainty of participation because a contributor may select a personal cap that is high enough and be sure to partici-

45. Jason Teutsch, Vitalik Buterin & Christopher Brown, *Interactive Coin Offerings* (Dec. 11, 2017), <https://people.cs.uchicago.edu/~teutsch/papers/ico.pdf>.

46. Federico Ast, *Kleros Token Sale: Frequently Asked Questions*, MEDIUM (May 7, 2018), <https://medium.com/kleros/kleros-token-sale-frequently-asked-questions-cf56359fd624>.

47. Kai Sedgwick, *Six Alternatives to an Initial Coin Offering*, BITCOIN.COM (June 18, 2018), <https://news.bitcoin.com/six-alternatives-to-an-initial-coin-offering>. The author refers to the example of Fantom: “In Fantom’s recent crowdsale, for example, one investor spent 580k gwei, or around \$24,000, just to ensure their transaction reached the front of the queue.” *Id.*

48. Federico Ast, *How Interactive Coin Offerings (IICOs) Work*, MEDIUM (Apr. 23, 2018), <https://medium.com/kleros/how-interactive-coin-offerings-iicos-work-beed401ce526>.

49. *Id.*

50. KLEROS, <https://kleros.io> (last visited Jan. 25, 2020).

51. Teutsch, Buterin & Brown, *supra* note 45, at 2.

52. Ast, *supra* note 48.

53. Buterin, *supra* note 43.

54. Jeff Benson, *Building A Better Coin Offering: Lessons From Kleros’ Interactive ICO*, BITCOIN ISLE (July 30, 2018), <https://www.bitcoinisle.com/2018/07/30/building-a-better-coin-offering-lessons-from-kleros-interactive-ico>.

55. Buterin, *supra* note 43.

pate in the IICO. Further, IICOs promise to improve the certainty of valuation: the personal cap gives contributors “the control over the valuation” at which the contributor decides to enter the sale.⁵⁶ IICOs are structured in three steps. Although IICOs aim to reduce the valuation risks, this model does not entirely eliminate the risk for first contributors entering the crowdsale, who do this with almost no information available on the success of the sale. To create a liquid market, IICOs implement a “bonus structure” or “inflation ramp” to reduce inertia while encouraging formation of a liquid market.⁵⁷ The bonus structure creates an incentive for early participants to buy tokens, who then have the right to opt-out and be refunded without paying any penalty;⁵⁸ therefore, the earlier a buyer participates, the more purchasing power she gets.⁵⁹ Such bonus structure is equal to 20% for first stage participants, and follows a linear decrease “down to 10% at the beginning of the withdrawal lock” by the start of the second phase, and down to 0% by the end of the crowdsale.⁶⁰ The second stage, known as the “partial withdrawal stage,” grants contributors the right to partially withdraw their bid.⁶¹ In the third stage, the “withdrawal lock stage,” contributors cannot voluntarily withdraw their bids. However, new participants may still join the IICO under the condition that their cap is aligned with the current valuation.⁶² During this phase, automatic withdrawals are implemented on every block, and contributors who provided the lowest personal caps are withdrawn first, and partial and equal withdrawals are made in the case of tied personal caps.⁶³ IICOs conclude with a final valuation, with a split of tokens between buyers who remained in the sale, in line with their contribution and their bonus.⁶⁴

56. *Id.*

57. *Ast, supra* note 48.

58. *Id.*

59. *Id.*

60. Teutsch, Buterin & Brown, *supra* note 45.

61. *Ast, supra* note 48. As the author explains: “Alice, Bob, and Carl all placed their contributions during the first phase. Their combined contributions result in a project valuation of 21 ETH. After *Seeing* the project valuation, Carl decides to withdraw. After Carl is refunded, the valuation is now at 20 ETH. But wait! If Carl was contributing 5 ETH and has opted out, why isn’t the valuation at 16 ETH? In order to avoid blackout attacks[], the IICO penalize manual withdrawals. The penalty is a combination between a partial lock-in and a bonus slash on that lock-in. In this case, Carl contributed 5 ETH at a moment when the bonus was 18%. He will only be able to withdraw a part of that depending on the moment when he does it. Let’s say Carl withdraws manually 80% of the way through the end of the second phase. This means he can only withdraw 20% (1 ETH) of his 5 ETH contribution. The other 80% (4 ETH) stays locked in the sale and has its bonus reduced by S (this cancels out the advantage over the other participants). This means he now has a contribution of 4 ETH and a bonus of 12%.”

62. *Id.*

63. *Id.*

64. *Id.*

2. Initial Supply Auction

The “Initial Supply Auction” constitutes a further experiment to improve the ICO model. In June 2018, the Metronome Project implemented an ICO based on a falling price auction. The team described this model of ICO in the following terms:

The Initial Supply Auction utilizes a descending price auction, where the price starts intentionally high and ticks down incrementally toward its intentionally low price floor as long as the auction is open. The price is not averaged out. Purchasers will receive their Metronome almost immediately after purchase, at the price they purchased. Purchasers should purchase only when they feel the price of MET to be fair.⁶⁵

The Initial Supply Auction raised concerns and critiques by users, in particular related to gas prices, faulty wallets, and auction manipulations.⁶⁶

3. Simple Agreement for Tokens (“SAFT”)

The so-called Simple Agreement for Tokens (“SAFT”), modeled after Simple Agreement for Equity (“SAFE”), was one of the first attempts to improve the mechanism of ICOs. First, the SAFT sought to create an international formal framework for token sales;⁶⁷ further, it aimed at “separat[ing] the pre-functional sale and the underlying consumer token, new financing instruments.”⁶⁸ The original proposal, “The SAFT Project: Toward a Compliant Token Sale Framework,” was based on four steps.⁶⁹ First, developers publish a whitepaper and incorporate a Delaware corporation, securing commitments exclusively from accredited investors with whom they enter into a SAFT (benefitting the exemption of Rule 506(c) of Regulation D of the Securities Act). Second, accredited investors transfer funds to the corporation, which may benefit from a discount on the final token sale, which counts as a security. Next, developers have a disclosure duty, filing a Form D with the SEC disclosing the sale. The corporation is in the position to develop the network into a product that provides genuine utility to its us-

65. Sedgwick, *supra* note 47.

66. Christine Masters, *The Metronome Project by Jeff Garzik Launched with a Faulty Auction*, CRYPTOVEST (June 25, 2018), <https://cryptovest.com/news/the-metronome-project-by-jeff-garzik-launched-with-a-faulty-auction>.

67. See Dirk A. Zetzsche et al., *The ICO Gold Rush: It's a Scam, It's a Bubble, It's a Super Challenge for Regulators*, 60 HARV. INT'L L.J. 267 (2019).

68. David L. Concannon et al., *The Yellow Brick Road for Consumer Tokens: The Path to SEC and CFTC Compliance*, in GLOB. LEGAL INSIGHTS, BLOCKCHAIN & CRYPTOCURRENCY REGULATION 103 (Josias Dewey ed., 2019).

69. Juan Batiz-Benet et al., *The SAFT Project: Toward a Compliant Token Sale Framework* (2017), <https://www.cooley.com/~/media/cooley/pdf/reprints/saft-project-whitepaper.ashx>.

ers and can finally launch the network and deliver the tokens to the investors, who may opt for selling the token to the public, either directly or through exchanges. However, “The SAFT Project” did not solve the criticalities that emerged in traditional ICOs, and in particular was not successful in reducing the costs deriving from the potential application of the federal securities laws.

4. Airdrops

One of the most debated evolutions is “airdrops,” a scheme representing a minority of ICOs.⁷⁰ Airdrops consist of the free of charge distribution of cryptocurrency tokens by cryptocurrency ventures (both startups as well as established blockchain-based enterprises such as cryptocurrency exchange platforms and wallet services) to the wallets of users.⁷¹ Developers may decide to “send a small amount to a population of Ethereum wallets in order to spread the word” for marketing reasons and to increase the value of their tokens.⁷² By distributing tokens for free to members of their community to encourage the token’s adoption and usage, developers hope to increase demand, and thus the value, of the token.⁷³ While startups generally opt for pre-airdrop announcements in order to heighten interest around the project, established blockchain-based enterprises prefer not to announce them.⁷⁴ However, tokens cannot be distributed until the end of the token sale,⁷⁵ and are generally distributed to community members of the ICO project who were engaged with the development of the community. Their engagement is measured through specific parameters, including the consistency and quality of the contribution to topics related to the project, and the duration of the community membership (with older members having priority over newer ones).⁷⁶

5. Security Token Offering (“STO”)

The urgent need to prevent additional fraudulent schemes, which have already plagued the ICO market, has led to the creation of what may be considered the next step in the evolution of ICOs: Securities Token Offerings (“STOs”). STOs address the need to create a safer environment for entre-

70. See Howell, Niessner & Yermack, *supra* note 7.

71. Katalyse.io, *What Are “Airdrops” in Crypto World?*, MEDIUM (Feb. 15, 2018), <https://medium.com/the-mission/what-are-airdrops-in-crypto-world-a345725c75e0>.

72. Kenny Li, *WTF Is an Airdrop? A Detailed Guide to Free Cryptocurrency*, HACKERNOON (Feb. 25, 2018) <https://hackernoon.com/wtf-is-an-airdrop-a-detailed-guide-to-free-cryptocurrency-e70e8777dd83>.

73. Emmanuel Darko, *What Are ICO Air Drops and Where to Find Them*, ICO WATCH LIST (Mar. 7, 2018), <https://icowatchlist.com/blog/ico-air-drops-find>.

74. See *id.*

75. Li, *supra* note 72.

76. Darko, *supra* note 73.

preneurs and investors. Like an ICO, STO tokens can be purchased during the offering and may be traded, sold, or held.⁷⁷ However, while in the context of an ICO, coins or tokens (and generally “utility tokens”) may be backed even by an abstract idea,⁷⁸ but a security token must be backed by something tangible, including assets, profits, or revenue of the company.⁷⁹

STOs have been described as safer than ICOs, a sort of “fully regulated ICO,”⁸⁰ or an “IPO lite.”⁸¹ In fact, STOs comply with securities regulations such as Reg D, Reg S, and Reg A+.⁸² Furthermore, tokens released “are intended to be compliant with KYC/AML requirements, and securities laws in whatever jurisdictions they touch.”⁸³ Together with regulatory compliance, a further source of increased safety of STOs is the issuance process. Overall, STOs are considered harder to put in place when compared to ICOs.⁸⁴ Companies need to revise their books with regularity, and a Reg A+ offering requires 2 years of audited financials.⁸⁵ In addition, an underwriter as well as an investment banker are required, due to the risks connected to selling unregistered securities.⁸⁶ For these reasons, STOs may be safer than ICOs—with lesser chance of fraud and greater ability to protect investors from so-called “pump-and-dump” schemes that can occur in ICOs⁸⁷—since they can

77. Polymath, *What Is a Security Token Offering (STO)?*, POLYMATH NETWORK (Mar. 12, 2018), <https://blog.polymath.network/what-is-a-security-token-offering-sto-4e5a92bf6bca>.

78. See Rooney, *supra* note 40.

79. E.g., Polymath, *supra* note 77; Michael Michaelides, *Blockchain and ICO FAQs*, MEDIUM (Sept. 6, 2018), <https://medium.com/bdxalliance/blockchain-and-ico-faqs-350482b3950d> (“If a crypto token derives its value from an external, tradable asset, it is classified as a security token and thus becomes subject to federal securities regulations. Failure to abide by these regulations could result in costly penalties and could threaten to derail a project. However, if a startup meets all its regulatory obligations, the security token classification creates the potential for a wide variety of applications, the most promising of which is the ability to issue tokens that represent shares of company stock.”).

80. See Sedgwick, *supra* note 47; Michael K. Spencer, *Security Token Offerings—STOs Are the New ICOs*, MARKETKAPS (Oct. 2018), <https://marketkaps.com/en/2018/10/30/security-token-offerings%E2%80%8A-%E2%80%8Astos-are-the-new-icos>.

81. Patrick Tan, *Security Tokens Versus Stablecoins*, MEDIUM (Sept. 27, 2018), <https://medium.com/predict/security-tokens-versus-stablecoins-2d33b91e2fd>.

82. Iliya Zaki, *Security Token Offerings (STOs)—What You Need To Know*, HACKERNOON (Dec. 28, 2018), <https://hackernoon.com/security-token-offerings-stos-what-you-need-to-know-8628574d11e2>.

83. Polymath, *supra* note 77.

84. Christina Comben, *Here’s Why Blockchain Companies Are Moving Away from ICOs*, THE MERKLE (May 5, 2018), <https://themerple.com/heres-why-blockchain-companies-are-moving-away-from-icos>.

85. *Id.*

86. *Id.*

87. This form of manipulation has been a matter of growing concern in unregulated cryptocurrency markets. See Rick D., *Pump and Dump Schemes Encourage Traders to Play a Game of Financial Chicken*, NEWSBTC (Aug. 6, 2018), <https://www.newsbtc.com/2018/08/06/crypto-pump-and-dump-schemes-encourage-traders-to-play-digital-chicken> [hereinafter *Pump and Dump Schemes*]; Rick D., *Some Traders Are Talking Up Cryptocurrencies, Then Dump-*

provide investors with “reassurance from the get-go that they won’t run into problems down the line.”⁸⁸ Polymath emphasized that security tokens created through its protocol (Polymath’s ST-20 standard) can “prevent trade between excluded persons through the use of robust smart contracts and our address whitelisting technology.”⁸⁹ Further, it emphasizes that “[w]hen companies release their Security Token Offerings on the Polymath platform, they will have been guided through the complex legal and technological processes before issuance.”⁹⁰ In addition, companies such as Polymath and Harbor are engaged in developing restrictive standards, and only fully compliant exchanges such as Templum are operating within this market.⁹¹

6. Reversible ICO (“RICO”)

The newest ICO model is the “reversible ICO” (“RICO”). It is also intended to decrease risks for investors in fraudulent ICOs. This ICO model is based on the possibility for investors “to return their tokens – and be reimbursed – at any stage of the project, via a special-purpose smart contract.”⁹² Once investors return their tokens, other investors may re-purchase them. Although this mechanism may incentivize ICO issuers to fulfill their obligations,⁹³ it may also increase instability. The startup is constantly subject to potential withdrawal of the funds by investors, therefore it cannot rely on having a specific amount of money as it plans the next steps of the project.⁹⁴ With a traditional equity security, if the investor changes his mind, he can sell it to another buyer (assuring liquidity), but not back to the issuer.

II. THE ROLE OF THE SECURITIES AND EXCHANGE COMMISSION

A. The “Do No Harm” Approach: CFTC vs. SEC

The relationship between entrepreneurship and innovation is not the “happiest,” as SEC Commissioner Hester M. Pierce noted in a recent

ing Them, Costing Others Millions, WALL ST. J. (Aug. 5, 2018), <https://www.wsj.com/graphics/cryptocurrency-schemes-generate-big-coin>.

88. Spencer, *supra* note 80.

89. Polymath, *supra* note 77.

90. *Id.*

91. Nabil Charania, *The Era of Security Tokens has Begun*, VENTUREBEAT (Aug. 4, 2018), <https://venturebeat.com/2018/08/04/the-era-of-security-tokens-has-begun>.

92. Helen Partz, *ERC-20 Co-Author Proposes New ICO Model to Protect Investors from Fraudulent Token Sales*, COINTELEGRAPH (Oct. 31, 2018), <https://cointelegraph.com/news/erc-20-co-author-proposes-new-ico-model-to-protect-investors-from-fraudulent-token-sales>.

93. *Id.*

94. See Solomon Sunny, *Devcon 2018: Co-Author of ERC-20 Token Standard Proposes a Safer ICO Model*, SMARTEREUM (Nov. 1, 2018), <https://smartereum.com/40056/devcon-2018-co-author-of-erc-20-token-standard-proposes-a-safer-ico-model>.

speech.⁹⁵ As Commissioner Pierce explained, regulators, entrepreneurs and society have three different points view:

Regulators get used to dealing with the existing players in an industry, and those players tend to have teams of people dedicated to dealing with regulators. Entrepreneurs trying to start something new are often much more focused on that new thing than on how it fits into a regulator's dog-eared rulebook. Regulators, for their part, tend to be skeptical of change because its consequences are difficult to foresee and figuring out how it fits into existing regulatory frameworks is difficult. Society, however, often pushes regulators to accept change. After all, society benefits from entrepreneurs' imaginative approaches to solving problems and willingness to go out on a limb with a new idea. Society welcomes innovations that make our lives easier, more enjoyable, and more productive.⁹⁶

As Commissioner Pierce correctly notes, the financial industry is an exception, with entrepreneurship and innovation not always as welcome as in other fields.⁹⁷ However, technological progress in the financial industry operates exactly as it does in any other industry or social activity and is characterized by "the same mix of hope, promise, and risk that technological progress in other parts of our society offers."⁹⁸ Regulators in general are in the position to "allow innovation to proceed," while implementing "reasonable safeguards and watching for unanticipated consequences."⁹⁹ Financial regulators specifically are in charge of regulating an industry representing a crucial node for the society, capable of bringing "progress and productivity in the rest of the economy."¹⁰⁰

Different interests and rationales support the decision to issue new regulation. While new regulation may pursue public interest objectives, i.e., legal certainty, investor protection, and financial stability, it is not necessarily the best choice. Regulated entities may have interests in the issuance of new regulations that may create barriers to entry and frustrate competition. Furthermore, new regulation might create significant costs. Increased compliance costs particularly affect new competitors. Furthermore, costs connected to so-called "rent-seeking" lead to the investment of a significant amount of resources by regulated firms to influence regulators and obtain privileges

95. Hester M. Peirce, Comm'r, Sec. & Exch. Comm'n, Remarks at Protecting the Public While Fostering Innovation and Entrepreneurship: First Principles for Optimal Regulation at the University of Missouri School of Law (Feb. 8, 2019) (transcript available at <https://www.sec.gov/news/speech/peirce-regulation-view-inside-machine>).

96. *Id.*

97. *Id.*

98. *Id.*

99. *Id.*

100. *Id.*

instead of creating value for customers.¹⁰¹ In addition, by exercising downward pressure on the regulators, the firms overseen by regulators may harm the reputation of the regulator: the result may be the adoption of a regulation that does not maximize the public interest, but rather exists primarily to protect the agency from criticism for inaction.¹⁰² For example, banking entities, in particular investment banks, have an interest in blocking a wide adoption of ICOs, since IPOs are a source of massive fees for them. A similar interest may drive alternative funds, such as venture capital, which may be massively disrupted by ICOs in the financing of early stage companies.¹⁰³

At the beginning of the Internet era, American regulators proposed a “do no harm” approach (together with four other key principles) due to the risk that regulation could frustrate and impede innovation.¹⁰⁴ The Framework for Global Electronic Commerce adopted by the Clinton administration in 1997 certainly implemented this view. It recognized that an increased share of transactions took place online and that the Internet would revolutionize retail and direct marketing.¹⁰⁵ At that time, the regulation of the Internet required a balanced approach different from both “laissez faire” and “knee-jerk regulation.” It was important not to make the mistake of applying an old economy policy framework or, on the other extreme, expecting the development of the Internet without any guidance and framework, pursuing the importance of building market confidence (especially with regard to e-commerce) while not suffocating the potential exponential development of the Internet.¹⁰⁶

Initially, regulatory authorities did not directly address the issue of ICOs. Rather, they referred to blockchain more generally. Particularly relevant in such a context is the position of the CFTC. The CFTC Chairman Christopher Giancarlo compared the blockchain technology to the Internet revolution and supported a “do no harm” approach in regulating blockchain technology. Giancarlo’s speech provides a definition of the “do no harm” approach:

101. See Christopher Koopman, Matthew Mitchell & Adam Thierer, *The Sharing Economy and Consumer Protection Regulation: The Case for Policy Change*, 8 J. BUS. ENTREPRENEURSHIP & L. 529, 534 (2015).

102. *Id.* at 536.

103. Dell’Erba, *supra* note 1, at 1110.

104. For a critical analysis, see Adam Thierer, *15 Years On, President Clinton’s 5 Principles for Internet Policy Remain the Perfect Paradigm*, FORBES (Feb. 12, 2012), <https://www.forbes.com/sites/adamthierer/2012/02/12/15-years-on-president-clintons-5-principles-for-internet-policy-remain-the-perfect-paradigm/#64ad084f170>.

105. See William J. Clinton & Albert Gore, *A Framework For Global Electronic Commerce*, ARCHIVES.GOV: CLINTON WHITE HOUSE (1997), <https://clintonwhitehouse4.archives.gov/WH/New/Commerce/read.html>.

106. Adam Smith, *E-Commerce in the New Century*, 8 NEW ENG. J. INT’L & COMP. L. 1, 3 (2002).

Governments and regulators should avoid undue restrictions, support a predictable, consistent and simple legal environment and respect the “bottom-up” nature of the technology and its development in a global marketplace. This model is well-recognized as the enlightened regulatory underpinning of the Internet that brought about profound changes to human society.¹⁰⁷

The CFTC opined that this approach should be re-applied to blockchain. A successful precedent was the implementation of the “do no harm” approach at the time of the Internet transformation. In response to Internet technology, the American administration adopted the Telecommunications Act of 1996 and the subsequent “Framework for Global Electric Commerce.” The “do no harm” approach was a catalyst that allowed the United States to play a prominent role in technology innovation, generating unprecedented investment in innovation equal to \$90 billion, investing in the cross-continental fiber-optic broadband network, and eventually allowing the United States to become the undisputed global leader in the field. In this context, the private sector played a primary role, without any interference from federal or state law. This led Giancarlo to qualify the “do no harm” approach as “unquestionably the right approach to development of the Internet,” as well as “the right overarching approach for distributed ledger technology.”¹⁰⁸ This may be justified by the significant similarities that the Internet Era shares with the development of blockchain technology, since they are both disruptors and moving targets.

Giancarlo further emphasized the potential role of regulation in frustrating innovation: “[I]nnovators and investors should not have to seek government’s permission, only its forbearance, to develop DLT so they can do the work necessary to address the increased operational complexity and capital consumption of modern financial market regulation.”¹⁰⁹ Giancarlo argued that regulators should opt for the provision of “uniform principles,” beneficial for investments in DLT and innovation.¹¹⁰ Consistent with the regulatory approach adopted in the Internet era, regulators should not impede innovation and investments in DLT, but instead “provide a predictable, consistent and straightforward legal environment,” avoiding “regulatory uncertainty or an uncoordinated regulatory approach.”¹¹¹ All these considerations can be safely extended to the specific issue of ICOs, as part of the broader process of innovation implemented through blockchain. ICOs are

107. Christopher J. Giancarlo, Chairman, Comm. Fut. Trading Comm’n, Special Address before the Depository Trust & Clearing Corporation 2016 Blockchain Symposium: Regulators and the Blockchain (Mar. 29, 2016).

108. Giancarlo, *supra* note 6, at 13.

109. Giancarlo, *supra* note 107.

110. *Id.*

111. *Id.*

clearly connected to crypto-currencies; the launch of new ICOs implies the creation of new crypto-currencies.

In October 2017, after the SEC had issued the “Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934: The DAO” (“DAO Report”)¹¹² and strengthened its enforcement action, the CFTC followed a similar path by issuing a report indicating it was open to the possibility that virtual currencies and virtual tokens may trigger different regulation. In its document, the CFTC took the position that the potential qualification of ICO tokens as securities would not be inconsistent with the CFTC’s “determination that virtual currencies are commodities and that virtual tokens may be commodities or derivatives contracts depending on the particular facts and circumstances.”¹¹³ Similar to the definition of “security,” the definition of “commodity” is very broad, encompassing a wide range of products, such as physical commodities, like agricultural products or natural resources, as well currencies or interest rates. Further, the definition of “commodity” encompasses “all services, rights, and interests . . . in which contracts for future delivery are presently or in the future dealt in.”¹¹⁴

Since 2014, former CFTC Chairman Timothy Massad has adhered to the position that the agency can have jurisdiction over Bitcoin and more generally over virtual currencies, depending “on the facts and circumstances pertaining to any particular activity in question,” and he has stated that derivative contracts based on a virtual currency represented “one area within our responsibility.”¹¹⁵ Coinflip¹¹⁶ introduced a new era of “Bitcoin” as a commodity, with the CFTC order stating that the Commodities Exchange Act (“CEA”) covers “all services, rights, and interests in which contracts for future delivery are presently or in the future dealt in,” and further stating that Bitcoin and other virtual currencies are encompassed in the definition

112. Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934: The DAO Release No. 34-81207, 117 S.E.C. Docket 745 (July 25, 2017).

113. COMM. FUT. TRADING COMM’N, A CFTC PRIMER ON VIRTUAL CURRENCIES, 14, https://www.cftc.gov/sites/default/files/idc/groups/public/documents/file/labcftc_primercurrencies100417.pdf (last visited Feb. 2, 2020).

114. Commodities Exchange Act, § 1a(9) (2015) (“The term ‘commodity’ means wheat, cotton, rice, corn, oats, barley, rye, flaxseed, grain sorghums, mill feeds, butter, eggs, *Solanum tuberosum* (Irish potatoes), wool, wool tops, fats and oils (including lard, tallow, cottonseed oil, peanut oil, soybean oil, and all other fats and oils), cottonseed meal, cottonseed, peanuts, soybeans, soybean meal, livestock, livestock products, and frozen concentrated orange juice, and all other goods and articles, except onions (as provided by section 13–1 of this title) and motion picture box office receipts (or any index, measure, value, or data related to such receipts), and all services, rights, and interests (except motion picture box office receipts, or any index, measure, value or data related to such receipts) in which contracts for future delivery are presently or in the future dealt in.”).

115. Timothy Massad, Chairman, Comm. Fut. Trading Comm’n, Testimony before the U.S. Senate Committee on Agriculture, Nutrition & Forestry (Dec. 10, 2014).

116. *In re* Coinflip, Inc., CFTC No. 15-29, 2015 WL 5535736 (Sept. 17, 2015).

and properly defined as commodities.”¹¹⁷ The CFTC charged Coinflip with the violation of Sections 4c(b)¹¹⁸ and 5h(a)(1)¹¹⁹ of the CEA by “conducting activity related to commodity options contrary to Commission Regulations and by operating a facility for the trading or processing of swaps without being registered as a swap execution facility or designated contract market.”¹²⁰ Specifically, Coinflip “operated an online facility named Derivabit, offering to connect buyers and sellers of Bitcoin option contracts.”¹²¹

In contrast to the CFTC, the SEC waited a long time before taking any position with regards to ICOs and cryptocurrencies and has never explicitly articulated a “do no harm” approach. However, it may be argued that the agency has tacitly implemented such an approach. In fact, the SEC took a long time to make any public statement and to bring enforcement actions against ICOs and cryptocurrencies. The first public statement specifically impacting ICOs came in July 2017 in the form of a DAO Report, which opened a new era of full regulatory enforcement. SEC Chairman Jay Clayton clarified this when he “instructed the SEC staff to be on high alert for approaches to ICOs that may be contrary to the spirit of our securities laws and the professional obligations of the U.S. securities bar.”¹²²

B. *Shifting From Inactivity to Full Enforcement*

1. The Stages of Intervention

Although the SEC has never explicitly mentioned the “do no harm” approach, it has held off on taking any public position towards ICOs and cryptocurrencies, including the publication of informational statements on the risks connected to ICOs. The identification of the main issues connected to ICOs was a gradual process at the SEC. Certainly the creation of the Distributed Ledger Technology Working Group within the SEC was a first step, which was instrumental in developing a deeper understanding of the phenomenon and the risks connected to blockchain. In addition, the Working Group contributed to coordinated efforts between the different divisions and

117. *Id.*

118. Section 4c(b) of CEA makes it unlawful for any person to “offer to enter into, enter into or confirm the execution of, any transaction involving any commodity . . . which is of the character of, or is commonly known to the trade as, an ‘option’ . . . , ‘bid,’ ‘offer,’ ‘put,’ [or] ‘call’ . . . contrary to any rule, regulation, or order of the Commission prohibiting any such transaction.” 7 U.S.C. § 6c(b) (2018).

119. Section 5h(a)(1) of the Act forbids any person from operating “a facility for the trading or processing of swaps unless the facility is registered as a swap execution facility or as a designated contract market.” 7 U.S.C. § 7b-3(a)(1) (2018).

120. *In re Coinflip, Inc.*, 2015 WL 5535736, at *2.

121. *Id.*

122. Jay Clayton, Chairman, Sec. & Exch. Comm’n, Opening Remarks at the Securities Regulation Institute (Jan. 22, 2018), (transcript available at <https://www.sec.gov/news/speech/speech-clayton-012218>).

offices within the Commission. The creation of the Cyber Unit within the Enforcement Division of the SEC further demonstrates the intention of the SEC to fully enforce federal securities law in the cryptospace, due to the risks for both investors and market integrity emerging from virtual currency and blockchain technology.¹²³ The recent creation of the Strategic Hub for Innovation and Financial Technology (“Finhub”) served to grant “meetings and other assistance relating to FinTech issues arising under the federal securities laws,” as the SEC explained.¹²⁴ Finhub is a new portal, launched in October 2018, that should allow fintech entrepreneurs to create compliant platforms before the launch of their project, with efficiency benefits for both good faith entrepreneurs and the SEC.¹²⁵ These institutional improvements emphasize the role that technology is currently playing in reshaping the governance of regulatory agencies.

The shift from inactivity to enforcement was gradual. Starting in 2017, the SEC became increasingly active with regard to cryptocurrencies. In March 2017, the SEC denied the authorization to the Winklevoss Bitcoin Exchange Traded Fund (“ETF”).¹²⁶ The creators intended the Bitcoin ETF to be a common stock fund pegged to the price of Bitcoin, and it would have allowed investors to purchase Bitcoin without creating a personal wallet.¹²⁷ In rejecting the application, the SEC reasoned that the proposed fund was susceptible to fraud because of the unregulated nature of Bitcoin,¹²⁸ dismissing the proposed rule change that would have allowed the listing of the shares of the Winklevoss Bitcoin Trust.¹²⁹ The SEC’s decision demonstrated its distrust towards the crypto asset class as a whole, especially funds attempting to trade digital currencies, and it foreshadowed future decisions

123. Stephanie Avakian, Co-Director, Division of Enforcement, The SEC Enforcement Division’s Initiatives Regarding Retail Investor Protection and Cybersecurity (Oct. 26, 2017), (transcript available at <https://www.sec.gov/news/speech/speech-avakian-2017-10-26>).

124. *Request Form for FinTech-Related Meetings and Other Assistance*, SEC. & EXCH. COMM’N, <https://www.sec.gov/finhub-form#no-back> (last visited Feb. 7, 2020).

125. See Michael Del Castillo, *SEC Launches Fintech Hub to Engage with Cryptocurrency Startups and More*, FORBES (Oct. 18, 2018, 2:39 PM), https://www.forbes.com/sites/michaeldelcastillo/2018/10/18/sec-launches-fintech-hub-to-engage-with-cryptocurrency-startups-and-more/amp/?__twitter_impression=true.

126. See Order Disapproving a Proposed Rule Change, Exchange Act Release No. 34-80206, at 2 (Mar. 10, 2017), <https://www.sec.gov/rules/sro/batsbzx/2017/34-80206.pdf>. The SEC disapproved the proposed rule change that would have allowed the listing of the shares of the Winklevoss Bitcoin Trust.

127. Russell Brandom, *The SEC Just Handed Bitcoin a Huge Setback*, VERGE (Mar. 10, 2017, 4:10 PM), <http://www.theverge.com/2017/3/10/14883350/sec-bitcoin-etf-order-winklevoss-denied>.

128. See Order Disapproving a Proposed Rule Change, Exchange Act Release No. 34-80206, at 21 (Mar. 10, 2017), <https://www.sec.gov/rules/sro/batsbzx/2017/34-80206.pdf>.

129. *Id.* at 2.

disregarding ICOs as a non-regulated framework.¹³⁰ On subsequent occasions, the SEC confirmed the view expressed in the March 2017 Disapproval Order. On July 26, 2018 the SEC confirmed its July 2018 Disapproval Order,¹³¹ in its response to the Winklevosses' petition for review of the March 2017 Disapproval Order. The SEC provided a consistent view with the March 2017 Disapproval Order, confirming its concerns about the bitcoin spot markets. The same risks of fraud and manipulation led the SEC to reject nine proposed ETFs backed by bitcoin future contracts,¹³² highlighting concerns related to the exchanges where such ETFs would have been listed¹³³

After the debate on Bitcoin ETFs approval, clearly identifiable steps opened the season of the SEC enforcement strategy in cryptocurrencies. First, in July 2017, the SEC issued the DAO Report, which categorized ICOs as securities and applied securities laws to them. Second, in October and December 2017, the SEC defined "security" with regard to ICOs, going beyond the semantics of phrases used in offering documents such as "initial membership offer" and "utility token," as evidenced in the REcoin and Munchee cases. Third, in January 2018, the SEC advocated for more collaboration with "market professionals, and especially gatekeepers," who have a duty to act responsibly and in accordance with the highest standards. Fourth, in March 2018, the SEC considered the infrastructure supporting ICOs, tokens, and cryptocurrencies; if coins and tokens are securities, the platforms for trading them may be subject to the securities laws applicable to exchanges. This was exemplified by the enforcement action against EtherDelta in November 2018 for being an unregistered digital token exchange. Furthermore, the recent creation of FinHub and the SEC's commitment to a "path to compliance" expressed in two recent cases, *In the Matter of Carriereq, Inc., d/b/a Airfox* and *In the Matter of Paragon Coin Inc.*, may have opened an era of enhanced collaboration between the agency and market participants. In this environment, market participants can benefit from prior guidance provided by FinHub and opportunities to comply with the

130. See Wulf A. Kaal & Marco Dell'Erba, *Blockchain Innovation in Private Investment Funds - A Comparative Analysis of the United States and Europe* (U of St. Thomas (Minnesota) Legal Studies, Research Paper No. 17-20, 2017).

131. Order Setting Aside Action by Delegated Authority & Disapproving a Proposed Rule Change, Exchange Act Release No. 34-83723, at 5 (Jul. 26, 2018), <https://www.sec.gov/rules/other/2018/34-83723.pdf>.

132. Paul Vigna & Asjlynn Loder, *SEC Rejects Nine Proposed Bitcoin Exchange-Traded Funds*, WALL STREET J. (Aug. 22, 2018, 9:43 AM), <https://www.wsj.com/articles/sec-rejects-nine-proposed-bitcoin-exchange-traded-funds-1534978380>.

133. See Order Disapproving a Proposed Rule Change to List and Trade the Shares of the ProShares Bitcoin ETF and the ProShares Short Bitcoin ETF, Exchange Act Release No. 34-83904, at 2-3 (Aug. 22, 2018), <https://www.sec.gov/rules/sro/nysearca/2018/34-83904.pdf>.

securities laws after a breach. The following paragraphs will consider this evolution.

2. First Stage: The DAO Report and ICO Tokens as Securities

After the rejection of the Winklevoss ETF, the SEC issued the DAO Report in July 2017.¹³⁴ It was a stepping stone in the SEC's identification of a more structured regulatory framework for ICOs by characterizing ICO tokens as securities under the Securities Exchange Act. In the DAO Report, the SEC suggested the adoption of a case by case approach, considering that “[w]hether a particular investment transaction involves the offer or sale of a security – regardless of the terminology or technology used – will depend on the facts and circumstances, including the economic realities of the transaction.”¹³⁵ The SEC stated that the characterization of ICOs' tokens as securities should be made taking into account the constitutive elements of the investment contract by applying the so-called *Howey* test, a four-prong test¹³⁶ based on the following parameters: “investment of money,” “common enterprise,” “expectation of profits,” and “[profits] to come solely from the efforts of the promoter or a third party.”¹³⁷ The *Howey* test proved to be a useful tool, due to its incorporation of “a flexible rather than a static principle, one that is capable of adaptation to meet the countless and variable schemes devised by those who seek the use of the money of others on the promise of profits.”¹³⁸ An immediate consequence of this extension of securities regulation to ICO tokens was that after requesting information from the SEC, a blockchain-based startup (Protostarr) opted to cancel its ICO and consequentially refunded its investors.¹³⁹

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

135. *See id.*

136. Similar to the SEC, the Canadian Security Administration adopted a four-prong test. *See* CSA Staff Notice 46-307: Cryptocurrency Offerings (2017), 40 O.S.C. Bull. 7231 (Can. Sec. Admin.), http://www.osc.gov.on.ca/documents/en/Securities-Category4/csa_20170824_cryptocurrency-offerings.pdf.

137. Scholars tend to separate the “expectation of profits” from the “efforts of the promoter or a third party.” *See* Ronald J. Coffey, *The Economic Realities of a “Security”: Is There a More Meaningful Formula?*, 18 CASE W. RES. L. REV. 367, 373 (1966).

138. SEC v. W. J. Howey Co., 328 U.S. 293, 299 (1946).

139. *See* Laura Shin, *After Contact By SEC, Protostarr Token Shuts Down Post-ICO, Will Refund Investors*, FORBES (Sept. 1, 2017, 2:19 AM), <https://www.forbes.com/sites/laurashin/2017/09/01/after-contact-by-sec-protostarr-token-shuts-down-post-ico-will-refund-investors/#2e23421d192e>.

3. Second Stage: Going Beyond the Semantics of Phrases in the *REcoin* and *Munchee* Cases

In October 2017, the SEC brought an emergency action to charge REcoin and DRC (Diamond Reserve Club), two ICOs launched by Maksim Zaslavskiy, with violating securities law.¹⁴⁰ This decision is particularly relevant because of the interpretation of the semantics that the SEC used, not formalistically but strictly connected to the economic reality of the underlying offer. In the whitepaper and on the website of REcoin, Zaslavskiy did not refer to the terms “ICO” or “securities,” adopting instead the semantics of “Initial Membership Offering” (“IMO”).¹⁴¹ The complaints stated: “In an attempt to skirt the registration requirements of the federal securities laws, Defendants Zaslavskiy and Diamond have refashioned the sale of the purported Diamond interests as sales of “memberships in a club,” and the Diamond ICO as an “Initial Membership Offering” or “IMO.” In reality, the supposed “memberships” are in all material respects identical to the ownership attributes of purchasing the purported (but, indeed, non-existent) “tokens” or “coins” and are securities within the meaning of the securities laws.”¹⁴² In a Facebook post, REcoin stated that an IMO is different from an ICO or an IPO.¹⁴³ However, the SEC concluded that such a distinction was “a sham,”¹⁴⁴ and REcoin certainly represented a case of “illegal unregistered securities offerings and ongoing fraudulent conduct and misstatements designed to deceive investors in connection with the sale of securities in so-called ‘Initial Coin Offerings.’”¹⁴⁵

The SEC confirmed this analysis in its December 2017 review of Munchee. The SEC stated that the offering of digital tokens to investors by a blockchain-based food review services company (Munchee) constituted an illegal unregistered securities offering.¹⁴⁶ In particular, the SEC challenged the view proposed by Munchee that the ICO tokens were “utility tokens” instead of “securities tokens.” The SEC took the view that although such tokens had a practical use at the time of the offering, this would not pre-

140. Regarding REcoin, Zaslavskiy did not hire any professionals contrary to what he stated, and in addition, misrepresented the effective amount he raised, declaring an amount between 2 and 4 million dollars, instead of approximately 300,000 dollars in reality. With regard to DRC, Zaslavskiy bragged about non-existent relationships with diamond wholesalers that, through an arbitrage process, should have provided significant gains for his investors. *See Zetzsche et al., supra* note 67, at 269 n.8.

141. Complaint at 7-8, *United States v. Zaslavskiy*, 2018 WL 4346339 at *2 (E.D.N.Y. 2018) (No. 17. Civ. 647).

142. *Id.* at *8.

143. *Id.* at *63.

144. *Id.* at *64.

145. *Id.* at *1.

146. *In re Munchee Inc., Securities Act Release No. 10445* at 36-38, File No. 3-18304 (SEC Dec. 11, 2017) (order).

clude the tokens from being construed as securities.¹⁴⁷ In its analysis, the SEC highlighted the relevance of “the economic realities underlying a transaction.”¹⁴⁸ Because of these underlying realities, the SEC ordered Munchee to cease and desist pursuant to Section 8A of the Securities Act.¹⁴⁹ The same day, SEC Chairman Clayton issued a statement on the risks of fraud and manipulation connected to ICOs (none of which registered with SEC), inviting investors to actively obtain information before deciding to invest.¹⁵⁰

The same extensive interpretation of ICO tokens as securities can be seen in the more recent case of *In re Tomahawk Exploration LLC*. In this case, the SEC confirmed that airdrops can also represent the sale of a security.¹⁵¹ Namely, distribution of securities in the form of tokens for promotional services serves two purposes, i.e. the function of advancing the issuer’s economic objectives or creating a public market for the securities. According to the SEC, this distribution falls within Section 5 of the Securities Act, Section 10(b) of the Exchange Act, and Rule 10b-5.¹⁵² This is consistent with SEC conclusions reached in relation to the free distribution of stocks in the 1990s.¹⁵³ These cases had the offering of a free instrument through a website in common, although the proponents never filed a registration statement, and no Form D was filed on the basis of an exemption from registration requirements of Section 5 of the Securities Exchange Act.

The two most recent cases, *In re Carriereq, Inc., d/b/a AirFox (AirFox)*,¹⁵⁴ and *In re Paragon Coin Inc.*,¹⁵⁵ opened a new, more collaborative way of enforcing the securities laws, a “path to compliance with the federal securities laws . . . even where issuers have conducted an illegal unregistered offering of digital asset securities.”¹⁵⁶ The SEC issued settled orders against the two companies in relation to the unregistered offering tokens.

147. *Id.* at 35.

148. *Id.*

149. *See id.*

150. Jay Clayton, *Statement on Cryptocurrencies and Initial Coin Offerings*, U.S. SEC. & EXCH. COMM’N (Dec. 11, 2017), <https://www.sec.gov/news/public-statement/statement-clayton-2017-12-11>.

151. *See supra* Part II.

152. Tomahawk Exploration LLC., Securities Act Release No. 10530 at 35, Exchange Act Release No. 83839, File No. 3-18641 (SEC Aug. 14, 2018) (order).

153. *See, e.g.*, Joe Loofbourrow, Securities Act Release No. 7700, Exchange Act Release No. 41631, File No. 3-9934 (SEC July 21, 1999) (order); Theodore Sotirakis, Securities Act No. 7701, File No. 3-9935 (SEC July 21, 1999) (order); Wowauction.com Inc. and Steven Michael Gaddis, Sr., Securities Act Release No. 7702, File No. 3-9936 (SEC July 21, 1999) (order).

154. Carriereq, Inc., Securities Act Release No. 10575 at 28–36, File No. 3-18898 (SEC Nov. 16, 2018) (order).

155. Paragon Coin, Inc., Securities Act Release No. 10574 at 49–57, File No. 3-18897 (SEC Nov. 16, 2018) (order).

156. *Statement on Digital Asset Securities Issuance and Trading*, U.S. SEC. & EXCH. COMM’N (Nov. 16, 2018), <https://www.sec.gov/news/public-statement/digital-asset-securities-issuance-and-trading>.

The orders provided that both companies should pay penalties, register the tokens as securities under Section 12(g) of the Exchange Act, and file periodic reports with the SEC.¹⁵⁷ Furthermore, the SEC required the compensation of investors “who purchased tokens in illegal offerings if an investor elects to make a claim.”¹⁵⁸ The intention of the SEC was to ensure that “investors receive the type of information they would have received had these issuers complied with the registration provisions of the Securities Act prior to the offer and sale of tokens in their respective ICOs.”¹⁵⁹ Finally, the SEC explicitly referred to its positive view of technological innovations capable of benefitting investors and capital markets. At the same time, the agency emphasized the importance for market participants to adhere to a “well-established and well-functioning federal securities law framework when dealing with technological innovations, regardless of whether the securities are issued in certificated form or using new technologies, such as blockchain.”¹⁶⁰

Despite the SEC’s massive enforcement actions, the SEC Director of the Division of Corporation Finance, William H. Hinman, excluded an automatic characterization of ICOs as “securities” in a June 2018 speech.¹⁶¹ In Hinman’s view, Ether tokens at the launch of Ethereum did not necessarily fall under the notion of “security” because of specific factual circumstances that are relevant when determining whether ICO tokens are securities.¹⁶² In fact, the DAO Report lacked clarifications or indications around “the facts and circumstances, including the economic realities of the transactions,” relevant to ascertaining “whether a particular transaction involves the offer and sale of a security—regardless of the terminology used.”¹⁶³ Hinman’s speech questions whether “a digital asset offered as a security can, over time, become something other than a security,” and provides an illustrative but not exhaustive list of elements, helpful to take into account as “facts and circumstances,” that are relevant in considering the applicability of the securities laws to ICO tokens.¹⁶⁴ This factual analysis is consistent with the Supreme Court’s holding in *Howey* about the test’s flexibility and adaptability to a broad range of schemes.¹⁶⁵ At the same time, Hinman provides a complimentary analysis by referring to *Gary Plastic Packaging v. Merrill*

157. *Id.*

158. *Id.*

159. *Id.*

160. *Id.*

161. William Hinman, Division of Corp. Fin., SEC, Remarks at the Yahoo Finance All Markets Summit: Crypto (June 14, 2018), <https://www.sec.gov/news/speech/speech-hinman-061418>.

162. *Id.*

163. *Id.*

164. *Id.*

165. *See* SEC v. W. J. Howey Co., 328 U.S. 293, 299 (1946).

*Lynch, Pierce, Fenner, & Smith Inc.*¹⁶⁶ (“*Gary Plastics*”), as a relevant precedent, in particular when taking into account the role of the third parties and the secondary market. In this case the court held that although specific instruments (bank certificates of deposit) were not intrinsically a security (such as the oranges in *Howey*), such instruments may still be qualified as “securities” and subject to the application of the securities law if such instruments “animate a broader investment contract.”¹⁶⁷

In Hinman’s analysis, the role of a third party in driving the expectation of a return and the “economic substance of the transaction” are two relevant elements,¹⁶⁸ and for both of these elements, he provides a non-exhaustive list to illustrate the parameters. In relation to the first element, Hinman considers whether there is a person or a group that sponsored and created the sale of the digital offers and retained a stake or other interest in the digital asset. Furthermore, he considers whether the “promoter raised an amount of funds in excess of what may be needed to establish a functional network,” and whether purchasers are “investing . . . [or] seeking a return.”¹⁶⁹ A legitimate parameter that Hinman explicitly mentions is related to applications of the Securities Act protections and the specific function of securities laws in general to correct potential informational asymmetries that may exist between the promoters and potential purchasers/investors in the digital asset.¹⁷⁰ Regarding the second element, the “economic substance of the transaction,” Hinman further considers specific parameters. Among them, Hinman considered whether the token creation relates to speculation and who sets the price (independent actor or secondary market influencing the trading), the clarity of the primary motivation related to purchasing digital asset for personal use or consumption, the distribution of the tokens meeting users’ needs, and whether the application is fully functioning or in early stages of development.¹⁷¹

On this basis, the *Howey* test is not the only relevant way to ascertain the characterization of ICO tokens as security, but *Gary Plastics* analysis also comes into play. As Hinman explains,

But this also points the way to when a digital asset transaction may no longer represent a security offering. If the network on which the token or coin is to function is sufficiently decentralized – where purchasers would no longer reasonably expect a person or group to carry out essential managerial or entrepreneurial efforts – the assets

166. Hinman, *supra* note 161 (citing *Gary Plastic Packaging Corp. v. Merrill Lynch, Pierce, Fenner & Smith, Inc.*, 756 F.2d 230, 241 (2d Cir. 1985)).

167. Concannon et al., *supra* note 68, at 1033.

168. Hinman, *supra* note 161.

169. *Id.*

170. *Id.*

171. *Id.*

may not represent an investment contract. Moreover, when the efforts of the third party are no longer a key factor for determining the enterprise's success, material information asymmetries recede. As a network becomes truly decentralized, the ability to identify an issuer or promoter to make the requisite disclosures becomes difficult, and less meaningful.¹⁷²

4. Third Stage: Collaboration with “Market Professionals, and Especially Gatekeepers”

In addition to providing an extensive interpretation of the notion of “security” (and extending the applicability of the securities laws to any activity connected to ICOs and more generally cryptocurrencies), the SEC has considered a revolutionary enforcement tool: the “client-attorney” relationship. After a general remark about the importance for “[m]arket professionals, especially gatekeepers . . . to act responsibly and hold themselves to high standards,” SEC Chairman Jay Clayton explicitly referred to responsible legal advice in the context of ICOs, highlighting specific concerns and criticalities.¹⁷³ First, he considered the situation in which securities lawyers assist clients in structuring offerings of products sharing significant key issues with securities offerings, but claim that they do not represent securities products. Second, he refers to the “‘it depends’ equivocal advice” on the qualification of specific products as securities, instead of “counseling their clients that the product they are promoting likely is a security.”¹⁷⁴ For all these situations, Chairman Clayton required “the SEC staff to be on high alert for approaches to ICOs that may be contrary to the spirit of our securities laws and the professional obligations of the U.S. securities bar.”¹⁷⁵

A complementary step is the position of the SEC regarding the endorsement of ICOs by celebrities.¹⁷⁶ As the SEC explained, ICO endorsements by celebrities and other social media users “may be unlawful if they do not disclose the nature, source, and amount of any compensation paid, directly or indirectly, by the company in exchange for the endorsement,” since although they may appear unbiased, celebrity endorsement may be part of a paid promotion.¹⁷⁷ In addition, the SEC clarified that “investment decisions should not be based solely on an endorsement by a promoter or

172. *Id.*

173. Clayton, *supra* note 122.

174. *Id.*

175. *Id.*

176. *See, e.g., Two Celebrities Charged With Unlawfully Touting Coin Offerings*, U.S. SEC. & EXCH. COMM’N (Nov. 29, 2018), <https://www.sec.gov/news/press-release/2018-268>.

177. *SEC Statement Urging Caution Around Celebrity Backed ICOs*, U.S. SEC. & EXCH. COMM’N (Nov. 1, 2017), <https://www.sec.gov/news/public-statement/statement-potentially-unlawful-promotion-icos>.

other individual,” and “[c]elebrities . . . often do not have sufficient expertise to ensure that the investment is appropriate and in compliance with federal securities laws.”¹⁷⁸

5. Fourth Stage: Infrastructures Supporting ICOs, Tokens, and Cryptocurrencies, Including Broker-Dealers and Digital Asset Hedge Funds

After providing an extensive interpretation of the notion of “security,” a further consequential step towards a full enforcement approach by the SEC consists of extending the application of the federal securities law to those activities related to the securities, in particular online platforms for trading digital assets and exchanges, as well as broker-dealers and digital asset hedge fund managers. Regarding the former, in March 2018, the SEC considered that a vast majority of these platforms provide “a mechanism for trading assets that meet the definition of a ‘security’ under the federal securities laws.”¹⁷⁹ The SEC concerns are mostly due to the appearance of online trading platforms as “SEC-registered and regulated marketplaces” that are not registered or regulated by the SEC, including those referring to themselves as “exchanges.”¹⁸⁰

The consequence of a non-registration of these platforms with the SEC as securities exchanges is that the agency and self-regulatory organizations such as FINRA do not review any standards mentioned by the platforms when claiming that they “use strict standards to pick only high-quality digital assets to trade.”¹⁸¹ Similarly, in these circumstances the SEC has not reviewed any trading protocol implemented by the platforms: such protocols play a key function in determining the way orders interact and execute, as well as regulating access to a platform’s trading services, which “may not be the same for all users.”¹⁸²

The SEC warned market participants operating online trading platforms that platforms trading securities and operating as an “exchange,” in accordance with the definition provided by the Securities Exchange Act of 1934 (“1934 Act”), must be registered as a national securities exchange or operate under an exemption from registration, such as the exemption provided for Alternative Trading Systems (“ATs”) under SEC Regulation ATS.¹⁸³ However, even ATs—as well as online trading platforms that may not meet the definition of an exchange under the federal securities laws—that

178. *Id.*

179. *Statement on Potentially Unlawful Online Platforms for Trading Digital Asset*, U.S. SEC. & EXCH. COMM’N (Mar. 7, 2017), <https://www.sec.gov/news/public-statement/enforcement-tm-statement-potentially-unlawful-online-platforms-trading>.

180. *Id.*

181. *Id.*

182. *Id.*

183. *Id.*

directly or indirectly offer trading or other services related to digital assets that are securities are subject to specific regulatory requirements.¹⁸⁴

In November 2018, the SEC charged EtherDelta, “an online platform that allows buyers and sellers to trade certain digital assets – Ether and “ERC20 tokens’ – with secondary market trading.”¹⁸⁵ As the SEC noted, “From July 12, 2016 to December 15, 2017 . . . more than 3.6 million buy and sell orders in ERC20 tokens that included securities as defined by Section 3(a)(10) of the Exchange Act were traded on EtherDelta, of which approximately 92% (3.3 million) were traded during the period following the DAO Report.”¹⁸⁶ For this reason, the SEC considered that EtherDelta met the criteria of an “exchange” as defined by Section 3(a)(1)¹⁸⁷ of the Securities Exchange Act of 1934 and Rule 3b-16¹⁸⁸ and was not excluded under Rule 3b-16(b).¹⁸⁹ In fact, EtherDelta matched “the orders of multiple buyers and sellers in tokens that included securities as defined by Section 3(a)(10) of the Exchange Act. The purchasers of such digital tokens invested money with a reasonable expectation of profits, including through the increased value of their investments in secondary trading, based on the managerial efforts of others.”¹⁹⁰ An important takeaway is that even a decentralized plat-

184. *Id.*

185. Coburn, Release No. 84553, 2018 WL 5840155, at *1 (Nov. 8, 2018) [hereinafter Coburn Release] (order initiating cease-and-desist proceedings) .

186. *Id.* at *2.

187. 15 U.S.C. § 78c(a)(1) (2018) (“[E]xchange’ means any organization, association, or group of persons, whether incorporated or unincorporated, which constitutes, maintains, or provides a market place or facilities for bringing together purchasers and sellers of securities or for otherwise performing with respect to securities the functions commonly performed by a stock exchange as that term is generally understood, and includes the market place and the market facilities maintained by such exchange.”).

188. Rule 3b-16 provides,

An organization, association, or group of persons shall be considered to constitute, maintain, or provide “a market place or facilities for bringing together purchasers and sellers of securities or for otherwise performing with respect to securities the functions commonly performed by a stock exchange,” as those terms are used in section 3(a)(1) of the Act, (15 U.S.C. 78c(a)(1) (2012)), if such organization, association, or group of persons: **(1)** Brings together the orders for securities of multiple buyers and sellers; and **(2)** Uses established, non-discretionary methods (whether by providing a trading facility or by setting rules) under which such orders interact with each other, and the buyers and sellers entering such orders agree to the terms of a trade

17 C.F.R. § 240.3b-16(a) (2019). As the SEC explains, this rules “provides a functional test to assess whether a trading system meets the definition of exchange under Section 3(a)(1) of the Exchange Act.” Coburn Release, *supra* note 185, at *5.

189. 17 C.F.R. § 240.3b-16(b) (2019).

190. Coburn Release, *supra* note 185, at *6.

form operating without a central infrastructure falls within the functional definition of the Securities Exchange Act.¹⁹¹

Consistent with this approach, in September 2018, the SEC charged TokenLot LLC and its owners for acting as unregistered broker-dealers in relation to the sale of digital tokens.¹⁹² TokenLot was charged with soliciting investors. The platform “actively and broadly solicited the general public to use the platform to purchase digital tokens,” and advertised digital tokens available on the platform through a broad range of channels (social media, forums, emailed newsletters).¹⁹³ Furthermore, TokenLot had received payment from digital token issuers for promoting the sale of the issuers’ tokens. In addition to solicitation, TokenLot facilitated initial securities offerings and transactions in secondary trading, acting as “brokers or dealers in handling investor purchase orders.”¹⁹⁴

The same approach led the SEC to charge a hedge fund manager for failure to register an investment vehicle as an investment company, the basis of its investments in digital assets.¹⁹⁵ Crypto Asset Management LLP (“CAM”) engaged in an “unregistered non-exempt public offering and invest[ed] more than 40 percent of the fund’s assets in digital asset securities.”¹⁹⁶ Therefore CAM caused the fund (Crypto Asset Fund, CAF) to not comply with the Investment Company Act. Section 3(a)(1)(C) of the Investment Company Act defines an “investment company” as any issuer which “is engaged or proposes to engage in the business of investing, reinvesting, owning, holding or trading in securities, and owns or proposes to acquire investment securities having a value exceeding 40 per centum of the value of such issuer’s total assets (exclusive of Government securities and cash items) on an unconsolidated basis.”¹⁹⁷ As a consequence of the contacts

191. Dario de Martino et al., *First SEC Enforcement Action Against Unregistered Digital Token Exchange*, MORRISON & FOERSTER (2018), https://www.mofo.com/resources/publications/181109-first-sec-enforcement-token-exchange.html?utm_source=publications&utm_medium=email#_ftn12.

192. *SEC Charges ICO Superstore and Owners With Operating As Unregistered Broker-Dealers*, U.S. SEC. & EXCH. COMM’N (Sept. 11, 2018), <https://www.sec.gov/news/press-release/2018-185>.

193. TokenLot et al., Exchange Act Release No. 84075, 2018 WL 4329662, *2 (Sept. 11, 2018).

194. *Id.* at *3.

195. *SEC Charges Digital Asset Hedge Fund Manager with Misrepresentations and Registration Failures*, U.S. SEC. & EXCH. COMM’N (Sept. 11, 2018), <https://www.sec.gov/news/press-release/2018-186>.

196. Crypto Asset Mgmt., LP et al., Securities Act Release No. 10544, 2018 WL 4329663 at *2 (Sept. 11, 2018).

197. *Id.* (quoting 15 U.S.C. § 80a-3(a)(1)(C) (2018)). In addition to the violation of Section 3(a)(1)(C) of the Investment Company Act, the SEC contested the violation of Sections 5(a), 5(c), and 17(a)(2) of the Securities Act, Section 206(4) of the Advisers Act and Rule 206(4)-8, and Section 7(a) of the Investment Company Act.

with the SEC, CAM agreed to cease its public offering, offered buy backs to affected investors, and was ordered to pay a fine of \$200,000.¹⁹⁸

6. Additional Initiatives by Other Authorities

Token sales have also triggered the attention of other regulatory agencies. Among these are the Department of Justice, the Financial Crimes Enforcement Network (“FinCEN”), the Federal Trade Commission, the Financial Industry Regulatory Authority (“FINRA”), and the Internal Revenue Service (“IRS”). FinCEN noted that they may trigger the regulation provided for money services business. When issuing an interpretative guide in 2011, FinCEN stated that “[t]he definition of a money transmitter does not differentiate between real currencies and convertible virtual currencies. Accepting and transmitting anything of value that substitutes for currency makes a person a money transmitter under the regulations implementing the Bank Secrecy Act.”¹⁹⁹ More recently, FinCEN has confirmed that “[a] developer that sells convertible virtual currency, including in the form of ICO coins or tokens, in exchange for another type of value that substitutes for currency is a money transmitter and must comply.”²⁰⁰ On this basis, token issuers may need to comply with anti-money laundering (“AML”) and know-your customer (“KYC”) rules. In addition, state money transmitter laws govern all activities related to “money transmission.”²⁰¹ In the United States, each state has the authority to interpret its own money transmission laws and any state could take the position that the activity involving virtual currency is subject to regulation, especially if the services also involve the handling of fiat currency. In this respect, widely divergent positions may emerge.²⁰²

Virtual currencies may also raise concern as to their tax treatment. In a notice describing how existing general tax principles apply to transactions using virtual currency, the IRS treated virtual currency as property for fed-

198. *Id.* at *4.

199. U.S. DEP’T TREASURY FIN. CRIMES NETWORK, FIN-2013-G001, APPLICATION OF FINCEN’S REGULATIONS TO PERSONS ADMINISTERING, EXCHANGING, OR USING VIRTUAL CURRENCIES (2013), <https://www.fincen.gov/resources/statutes-regulations/guidance/application-fincens-regulations-persons-administering>.

200. U.S. DEP’T TREASURY FIN. CRIMES NETWORK, LETTER TO THE HONORABLE RON WYDEN (Feb. 13, 2018), <https://coincenter.org/files/2018-03/fincen-ico-letter-march-2018-coin-center.pdf>.

201. Wistar Wilson, *A Call to Clarify the Regulatory Scope of Money Transmitter Laws*, THE REGULATORY REVIEW (June 19, 2013), <https://www.theregview.org/2013/06/19/a-call-to-clarify-the-regulatory-scope-of-money-transmitter-laws>. The author notes that in Maryland the applicable state law specifically covers the reception of any money for transmission “by any means, including electronically or through the Internet.”

202. Jennifer L. Moffitt, *The Fifty U.S. States and Cryptocurrency Regulations*, COIN ATM RADAR (July 27, 2018), <https://coinatmradar.com/blog/the-fifty-u-s-states-and-cryptocurrency-regulations/#ftn2>.

eral tax purposes, and therefore transactions using virtual currency are subject to general tax principles applicable to property transactions.²⁰³

Courts have also noted the importance of overlapping regulatory regimes. Judge Jack B. Weinstein of the Eastern District of New York upheld the CFTC's determination that virtual currencies (including those with respect to which no futures contract is offered) are indeed commodities under the CEA. More importantly, Judge Weinstein confirmed that "[f]ederal agencies may have concurrent or overlapping jurisdiction over a particular issue."²⁰⁴ Multiple legal treatments result from regulators' efforts to apply the existing regulatory framework to new products, and do not lead to unreasonable overlaps. The multiple legal treatments derive from ICOs' multiple characteristics, and trigger different regulations corresponding to different kinds of protection and regulatory answers.

III. POLICY CONSIDERATIONS OF SEC ENFORCEMENT

A. *The Positive Consequences of SEC Enforcement Strategies*

In Part I, this Article highlighted two main issues that regulators have to consider with regard to new technology. First, regulators must consider the applicability of the existing legal framework to the new technology (as advocated by Frank H. Easterbrook)²⁰⁵ and the possibility of enacting new regulation (as opined by Lawrence Lessig).²⁰⁶ Second, regulators should not frustrate innovation.

Considering the applicability of the existing legal framework to ICOs implies the possibility of extending the federal securities law framework to ICOs. This would occur through the hermeneutic step of including ICOs within the definition of "security" provided by the Securities Act (and the Securities Exchange Act). Although some construe this extension as a way to frustrate innovation, others argue that it may be a way to create a healthy environment by providing stability and predictability in the market. This may have the positive effect of enhancing investor confidence (attracting long-term investors)²⁰⁷ and in fact fostering innovation.

ICOs and cryptocurrencies represent the most popular application of blockchain technology. Therefore, a safe regulatory environment is important not only for the direct relevance in these specific contexts, but more

203. I.R.S. Notice 2014-21.

204. *Commodity Futures Trading Comm'n v. McDonnell*, 287 F. Supp. 3d 213, 228 (E.D.N.Y. 2018).

205. See generally Easterbrook, *supra* note 4.

206. See generally Lessig, *supra* note 4.

207. See Panos Mourdoukoutas, *SEC Won't Kill ICOs*, FORBES (July 30, 2017), <https://www.forbes.com/sites/panosmourdoukoutas/2017/07/30/sec-wont-kill-icos/#abc9aa43d2eb>.

broadly to foster societal confidence towards the blockchain technology and its application in daily life. In October 2016, the Federal Reserve emphasized the need for “complex demonstrations in real-world situations before these technologies can be safely deployed in today’s highly interconnected, synchronized and far-reaching financial markets.”²⁰⁸ Understandably, such skepticism was mostly caused by uncertainty regarding blockchain technology and has not been entirely disproven.

The full enforcement implemented by the SEC in the context of ICOs has led to the creation of a more certain environment, beneficial for non-sophisticated investors as well as for bona fide entrepreneurs who considered ICOs a legitimate and efficient way to finance their entrepreneurial activity in the blockchain space. By extending the federal securities law to ICOs, the SEC pursued two complementary institutional objectives, namely, investor protection and preservation of capital formation. Reg S-1 and Reg D filings related to ICOs have increased,²⁰⁹ with the first Reg S-1 ICO filed March 2018.²¹⁰ This is also consistent with the approval of the first Reg A+ offering by Blockstack, which will be able to sell its digital tokens to anyone (not only to accredited investors as in the case of Reg D).²¹¹ Even the numerical decline of ICOs during 2018²¹² is not necessarily a negative data-point and may be consistent with the abovementioned data. This holds true especially considering that the vast majority of them were “scam-like pro-

208. Lael Brainard, Member, Board of Governors of the Federal Reserve System, Remarks at the Institute of International Finance Annual Meeting Panel on Blockchain Washington, D.C. (Oct. 7, 2016), (transcript available at <https://www.federalreserve.gov/newsevents/speech/brainard20161007a.pdf>).

209. A search on the SEC EDGAR Database shows seventeen ICO S-1 filings in 2018 (counting the relevant ones associated with the words “ICO,” “Initial Coin Offerings” and “Token”). 2018 ICO S-1 Filings, EDGAR, https://searchwww.sec.gov/EDGARFSCClient/jsp/EDGAR_MainAccess.jsp (click “Advanced Search Page,” set Form Type to “S-1,” and set date range to 01/01/2018-12/31/2018 and search for terms previously listed, ignoring irrelevant results).

There were seventy-five Reg D filings in relation to ICOs in 2018. 2018 ICO Reg D Filings, EDGAR, https://searchwww.sec.gov/EDGARFSCClient/jsp/EDGAR_MainAccess.jsp (click “Advanced Search Page,” set Form Type to “D,” and set date range to 01/01/2018-12/31/2018 and search for terms “ICOs,” “Initial Coin Offerings,” and “Token,” subtracting the common projects). Enlarging the spectrum to blockchain-related projects, the same source reveals that there were sixty-three Reg D filings containing the word “blockchain” in 2018 (in 2017, there were twenty) and forty-four Reg S filings containing the word “blockchain” (in 2017, there were fifteen). *Id.* This data is from November 1, 2018.

210. See Praetorian Group, Registration Statement (Form S-1) (Mar. 6, 2018).

211. See Blockstack PBC, Offering Circular (Form 1-A) (July 11, 2019), <https://www.stackstoken.com/static/offering-circular-20190711.pdf>.

212. See *Funds Raised in 2018*, ICODATA, <https://www.icodata.io/stats/2018> (last visited Feb. 5, 2020).

jects.”²¹³ This may imply that the SEC protected investors while preserving capital formation.

Indeed, while the role of the SEC is to protect investors as well as preserve capital formation, these two institutional goals may be pursued at a given time with different intensities. The SEC may favour one of the two under certain circumstances. However, this is not what happened here. In fact, the SEC has induced a structural transformation of ICOs with rigorous enforcement of securities laws. The increased Reg S-1 and Reg D filings prove that ICOs systematically target private wealthy accredited investors and institutional investors.²¹⁴ In doing this, the SEC reduced the exposure of unsophisticated investors to scams and preserved adequate levels of liquidity in the market.

Although justified by the need to have a fuller understanding of the new technology, the period preceding the issuance of the DAO Report was characterized by significant inertia, affecting both investors (especially the unsophisticated ones), exposed to the speculative frenzy that characterized the market starting from the early beginning of 2017, and entrepreneurs, who could not safely consider this new tool of capital formation.

From a theoretical perspective, certainty is connected to the concepts of “legal definitions” (especially in normative legal systems) and “legal order.” Normatively, legal definitions are significant in both the common law and civil law systems (especially in the context of securities law, which often implements a “rule-based” approach), specifically with respect to the creation of a “*legal order*.”²¹⁵ The concept of “order” implies the regularity and predictability of actions: those entering the market know that their actions and the actions of others are governed by rules, and therefore that behaviors are predictable within the perimeter of the rules. In this way order reduces uncertainty and improves forecasting capacity, because people are confident in the actions of others. Therefore, both the society and the market benefit from this order.²¹⁶

Financial innovation and disruptive technological innovation conflict with predictability and forecasting. This generates a high degree of com-

213. See *ICO Market Research Q3 2018*, ICO RATING (2018), <https://icorating.com/report/ico-market-research-q3-2018>.

214. See Justina Lee, *ICOs Are Turning Exclusive as Wealthy Investors Snatch Up Deals*, BLOOMBERG (Aug. 7, 2018, 8:01 PM), <https://www.bloomberg.com/news/articles/2018-08-08/token-sales-turn-exclusive-as-private-investors-snatch-up-deals>.

215. See NATALINO IRTI, *L'ORDINE GIURIDICO DEL MERCATO* 3-11 (2003).

216. See *id.* at 4-5. According to this conception, both the market and society are “*loci artificiali*,” as opposed to “*loci naturali*.” See *id.* at 11. On this topic, see generally FRIDERICH VON HAYEK, *THE CONFUSION OF LANGUAGE IN POLITICAL THOUGHT* (1968), <https://iea.org.uk/wp-content/uploads/2016/07/upldbook508.pdf>.

plexity²¹⁷ that regulators may not be able to fully understand and confront. As a consequence, regulators may be tempted to capture such complexity by issuing a new regulatory framework. The risk of new regulatory frameworks following technology is that they will produce a sort of “emergency regulation,” wherein the general categories and principles are more fragmented and difficult to identify and implement. The SEC wisely made efforts to qualify the new technological developments under the umbrella of federal securities law, applying a well-known test like *Howey*, to qualify the moving and evolving target of ICO tokens as “securities” under the Securities Exchange Act. The definition of “security” is valuable and does not require any specific implementation to adapt to financial innovation and absorb market evolution in this context. This fosters order, stability, and legal certainty. As already mentioned, the *Howey* test is still the best tool in such a context, due to its incorporation of “a flexible rather than a static principle, one that is capable of adaptation to meet the countless and variable schemes devised by those who seek the use of the money of others on the promise of profits.”²¹⁸

A factual evaluation of ICOs as a tool for capital formation leads to the conclusion that a vast majority of ICOs trigger the application of securities laws. At the same time, Director Hinman’s suggestion that an ICO token may not always be characterized as a security is not inconsistent with an extensive interpretation of securities laws and a rigorous application of their main definitions. Rather, it confirms the relevance of securities laws as the starting point when evaluating the treatment of specific instruments as “securities.” A reasonable application of the tests developed by the courts does not require a blind qualification of any instrument as a “security.” This is especially so when the implementation of securities law would not work to correct the asymmetries for which it is intended. In this way, the SEC legitimizes securities regulation and the definition of “security” as the parameter for evaluating any innovative financial instrument. This leads to an improved “legal order” with significant benefits for the entire legal system.

Furthermore, the hermeneutic step of treating ICOs and similar mechanisms as “securities” creates an opportunity to extend securities regulation to other activities involving ICOs and cryptoassets. The extension of the federal securities laws to trading platforms (exchanges, ATS, and residual categories) as well as to hedge fund managers trading in cryptoassets is a logical consequential implementation of securities regulation pursuing investor protection. The vast majority of trading platforms have proven susceptible to significant malfunctions. For instance, the leading platform

217. On the regulatory challenges of complexity, see generally Dan Awrey, *Complexity, Innovation and the Regulation of Modern Financial Markets* 2 HARV. BUS. L. REV. 235 (2012).

218. SEC v. W. J. Howey Co., 328 U.S. 293, 299 (1946).

Coinbase, often proved unstable and unreliable. As a result, the company openly admitted to “downtime which can impact on the ability to trade,” in a blog post in December 2017.²¹⁹ In an environment with high volatility, where timely execution of orders is essential for investor protection, this certainly was a critical issue for the platform. If one of the major platforms is subject to such problems (for reasons that may likely be due to technological and/or liquidity issues), it is clear that the rest of the less established (and not registered) trading platforms may be affected by a wide array of problems.

By the same token, a more rigorous application of securities law would offer more protection from the growing number of market manipulation practices occurring on cryptocurrency exchanges in the form of “pump-and-dump” schemes,²²⁰ which are illegal in the majority of public stock markets, including the London and New York Stock Exchanges. Market manipulation is significant in cryptocurrencies, with an average of two pump-and-dump scams every day, generating about \$6 million worth of trading volume a month.²²¹ A recent case was Paragon, which rose 9,650% in 24 hours, from \$ 0.1 to above \$ 10 and came back to \$ 0.3.²²² As a Business Insider investigation noted, “pumpers” (crypto traders) implement a specific scheme, coordinating their action via Telegram and Discord, “inflate the price of a cryptocurrency by coordinating a few buyers to act at specific times,” then, using social media and online forums, attract new investors who buy when the price goes up.²²³ The pumpers then sell the coins, before the crash, at the expense of the “second wave of investors.”²²⁴ Together with

219. Brian Armstrong, *Please Invest Responsibly – An Important Message from the Coinbase Team*, COINBASE (Dec. 8, 2017), <https://blog.coinbase.com/please-invest-responsibly-an-important-message-from-the-coinbase-team-bf7f13a4b0b1>. One of the most relevant paragraphs of the blog post states: “Despite the sizable and ongoing increases in our technical infrastructure and engineering staff, we wanted to remind customers that access to Coinbase services may become degraded or unavailable during times of significant volatility or volume. This could result in the inability to buy or sell for periods of time. Despite ongoing increases in our support capacity, our customer support response times may be delayed, especially for requests that do not involve immediate risks to customer account security.”

220. See *Pump and Dump Schemes*, *supra* note 87.

221. See Jiahua Xu & Benjamin Livshits, *The Anatomy of a Cryptocurrency Pump-and-Dump Scheme*, 28TH USENIX SECURITY SYMPOSIUM 1609, 1609 (Aug. 17, 2019), https://www.usenix.org/system/files/sec19-xu-jiahua_0.pdf.

222. Arnab Shome, *Paragon Spikes 9,650% in 24 Hours in Apparent Pump and Dump*, FINANCE MAGNATES (Jan. 2, 2019), <https://www.financemagnates.com/cryptocurrency/trading/paragon-spikes-9650-in-24-hours-in-apparent-pump-and-dump>.

223. Oscar Williams-Grut, “Market Manipulation 101”: “Wolf of Wall Street”-Style “Pump and Dump” Scams Plague Cryptocurrency Markets, BUS. INSIDER (Nov. 14, 2017, 2:00 AM), <https://www.businessinsider.com/ico-cryptocurrency-pump-and-dump-telegram-2017-11>; see also Shawn Gordon, *Anatomy of an ICO Pump and Dump*, MEDIUM (Nov. 6, 2017), <https://medium.com/@ProgRockRec/anatomy-of-an-ico-pump-and-dump-325c735d5f19>.

224. *Id.*; Williams-Grut, *supra* note 223.

a Russian exchange, Yobit, the American-based exchange Bittrex (a Las Vegas-based exchange) attracted a vast community of “pumpers.”²²⁵ As Xu and Livsits explain, these exchanges are themselves directly associated with pump-and-dump, due to specific benefits that exchanges may extract from this illegal practice. In fact, exchanges “can profit by dumping [cryptocurrencies] at a higher, pumped price; . . . [can] also earn[] higher transaction fees due to increased trading volume driven by a pump-and-dump; . . . [and can] utilize their first access to users’ order information for front-running during a frenzied pump-and-dump.”²²⁶

Another manipulative practice involves so-called “bots,” automated trading programs that may be used legitimately or illegitimately.²²⁷ Recently, the office of New York Attorney General Barbara D. Underwood expressed concern for this manipulative risk in crypto-exchanges.²²⁸ Traditional exchanges, such as the New York Stock Exchange, are engaged in monitoring for illegal trading and punishing rule breakers.²²⁹ In contrast, crypto-exchanges lack structured oversight and are more exposed to abusive practices that may become systematic, absent increased oversight.²³⁰ Due to the significant losses that they can generate for investors and the underlying relevance for market integrity, the SEC’s concerns towards market infrastructure are legitimate. Therefore, rigorous enforcement actions in this direction play an essential part in pursuing investor protection.

Furthermore, the risk related to market manipulation is one of the main reasons for rejecting multiple applications by cryptocurrency ETFs.²³¹ As Chairman Clayton clarified: “What investors expect is that trading in the commodity that underlies that ETF makes sense and is free from the risk of manipulation . . . [however] [t]hose kinds of safeguards do not exist currently in all of the exchange venues where digital currencies trade.”²³² Although SEC Commissioner Robert Jackson’s statements on ETFs could be inter-

225. See Williams-Grut, *supra* note 223.

226. See Xu & Livshits, *supra* note 221, at 1610.

227. See Paul Vigna & Alexander Osipovich, *Bots Are Manipulating Price of Bitcoin in “Wild West of Crypto”*, WALL ST. J. (Oct. 2, 2018, 8:00 AM), <https://www.wsj.com/articles/the-bots-manipulating-bitcoins-price-1538481600>.

228. N.Y. OFFICE OF ATT’Y GEN., VIRTUAL MARKET INTEGRITY INITIATIVE REPORT (Sept. 18, 2018) at 9, https://ag.ny.gov/sites/default/files/vmii_report.pdf?mod=article_inline.

229. See *id.* at 4.

230. See *id.* at 5.

231. Kate Rooney and Bob Pisani, *Winklevoss Twins Bitcoin ETF Rejected by SEC*, CNBC (July 27, 2018, 7:53 AM), <https://www.cnbc.com/2018/07/26/winklevoss-twins-bitcoin-etf-rejected-by-sec.html>.

232. See Kate Rooney, *SEC’s Clayton Needs to See Key Upgrades in Cryptocurrency Markets Before Approving a Bitcoin ETF*, CNBC (Nov. 27, 2018, 6:25 PM), <https://www.cnbc.com/2018/11/27/sec-wants-key-upgrades-in-crypto-markets-before-approving-bitcoin-etf.html>.

preted optimistically,²³³ recent developments suggest that the SEC has not changed its approach towards cryptocurrency ETFs. Reality Shares ETF Trusts, belonging to Blockforce Capital, opted for withdrawing an ETF proposal due to exposure to bitcoin futures.²³⁴

The SEC's complementary strategy of emphasizing the role of market professionals, especially gatekeepers, and legal advisors is an important enforcement tool. Legal advisors who provide "it depends" equivocal advice play a key role in spreading uncertainty (and consequential disorder) in the context of ICOs. In a transitional era, legal advisors who pursue a conservative approach are beneficial for both their clients and indirectly for potential investors who may be exposed to significant regulatory risks. Equally relevant is the limitation on endorsements expressed by celebrities, due to their ability to significantly amplify the speculative frenzy among "street investors," making them even more exposed and vulnerable to speculation and, in the worst scenarios, to scams and frauds. Both the SEC statements and potential enforcement actions on legal advisors and celebrities contribute in different ways to promote and strengthen investor protection.

The systematic implementation of a certain framework of rules produces a further beneficial consequence: it may potentially generate private initiatives and improved standards that create and foster a healthy environment. The evolution of ICOs towards STOs is an important step, as well as the creation of so-called ERC-20 tokens, a specific type of token developed on the Ethereum platform, implementing a specific list of six mandatory standards, and three optional ones.²³⁵ Further, in an effort to reduce the risks connected to ICOs, Coinbase created a framework enabling the listing of the token on its platform in full compliance with local regulations "by satisfying listing requests in a jurisdiction-by-jurisdiction manner,"²³⁶ with the possibility that new assets may be listed on platforms available only to customers in select jurisdictions for a period of time.²³⁷

From the same perspective, the decision to ban ICO advertisement has been remarkable. It certainly increased the credibility of such platforms while avoiding potential sanctions issued by the SEC and other federal agencies. In addition, it operated as a sort of circuit-breaker (to adopt termi-

233. See William Suberg, *SEC Commissioner Jackson Thinks Regulator Will Approve BTC ETF, Leaked Interview Shows*, COINTELEGRAPH (Feb. 8, 2018), <https://cointelegraph.com/news/sec-commissioner-jackson-thinks-regulator-will-approve-btc-etf-leaked-interview-shows>.

234. Nikhilesh De, *ETF Tied to Bitcoin Futures Withdrawn After SEC Staff Request*, COINDESK (Feb. 13, 2019, 7:58 PM), <https://www.coindesk.com/etf-tied-to-bitcoin-futures-withdrawn-after-sec-staff-request>.

235. See Maxwell William, *ERC-20 Tokens, Explained*, COINTELEGRAPH (May 12, 2018), <https://cointelegraph.com/explained/erc-20-tokens-explained>.

236. COINBASE, COINBASE'S NEW ASSET LISTING PROCESS (Sept. 25, 2018), <https://blog.coinbase.com/new-asset-listing-process-a83ef296a0f3>.

237. *Id.*

nology belonging to securities regulation) with regard to the speculative spiral, characterizing the sector. The result is further protection for social media users, most of whom are unsophisticated investors, from potential irresponsible decisions. Facebook was the first social media platform that opted for such a measure,²³⁸ clearly stating as its goal that “people continue to discover and learn about new products and services through Facebook ads without fear of scams or deception.”²³⁹ As Facebook further explained, it intentionally opted for a broad policy and is continuing to work “to better detect deceptive and misleading advertising practices, and enforcement will begin to ramp up across our platforms including Facebook, Audience Network and Instagram.”²⁴⁰ This decision triggered a homogeneous reaction of other “Big Techs,” in particular Google and Twitter. Similarly, Google’s new Financial Services Policy (implemented in June 2018) bans “cryptocurrency and related content (including but not limited to initial coin offerings, cryptocurrency exchanges, cryptocurrency wallets, and cryptocurrency trading advice).”²⁴¹ This new policy will be extended to Google search, Google-owned platforms (including YouTube), and display-advertising on third-party sites.²⁴² Google further implemented the decision by “pulling cryptocurrency mining extensions” from the Chrome Web Store on April 2, 2018 (and delisted in June) after “90%” failed to comply²⁴³ with its rules.²⁴⁴

From a broader perspective, a certain and safe regulatory environment has the advantage of making the United States more competitive in the international arena. Although the United States has always been perceived as the most developed and sophisticated regulatory environment for corporations and securities, blockchain and ICOs led to the emergence of important competitors, such as Switzerland and Singapore. In both these countries, the governments as well as their respective financial authorities (FINMA and

238. Stephen O’Neal, *Big Tech Are Banning Crypto And ICO Ads - Is There A Reason to Panic?*, COINTELEGRAPH (Apr. 5, 2018), <https://cointelegraph.com/news/big-tech-are-banning-crypto-and-ico-ads-is-there-a-reason-to-panic>; see also Rob Leathern, *New Ads Policy: Improving Integrity and Security of Financial Product and Services Ads*, FACEBOOK FOR BUSINESS (Jan. 30, 2018), <https://www.facebook.com/business/news/new-ads-policy-improving-integrity-and-security-of-financial-product-and-services-ads>.

239. Leathern, *supra* note 238.

240. *Id.*

241. *Financial Services: New restricted financial products policy (June 2018)*, GOOGLE, https://support.google.com/adwordspolicy/answer/7648803?hl=en&ref_topic=29265.

242. O’Neal, *supra* note 238; see also Molly Jane Zukerman, *Google to Ban All Crypto-Related Ads Starting June 2018*, COINTELEGRAPH (Mar. 14, 2018), <https://cointelegraph.com/news/google-to-ban-all-crypto-related-ads-starting-june-2018>.

243. See James Wagner, *Protecting Users from Extension Cryptojacking*, CHROMIUM BLOG (Apr. 2, 2018), <https://blog.chromium.org/2018/04/protecting-users-from-extension-cryptojacking.html>.

244. William Suberg, *Google Bans Crypto Mining Extensions From Web Store After “90%” Disregard Policies*, COINTELEGRAPH (Apr. 3, 2018), <https://cointelegraph.com/news/google-bans-crypto-mining-extensions-from-web-store-after-90-disregard-policies>.

MAS, respectively) implemented clear and efficient rules. Consistent with a “do no harm” approach, the Swiss legislation adopted a principle-based regulation for financial markets, and implemented a principle of “*technology neutrality*.”²⁴⁵ In Singapore, MAS has been one of the first movers when considering a regulation for blockchain; with regard to ICOs, it took the position that digital tokens offered in Singapore shall be regulated by the MAS “if the digital tokens constitute products regulated under the Securities and Futures Act” and confirmed the decision not to regulate virtual currencies.²⁴⁶

From this perspective, the creation of the FinHub and the possibility of adhering to a “path to compliance” as in the two recent cases *In re Carriereq Inc., d/b/a AirFox*, and *In re Paragon Coin Inc.* may be beneficial for the competitiveness of the U.S. market. These initiatives prove that the SEC is not hostile to new technologies (including blockchain). The SEC seems rather to pursue the opposite interest of proactively creating a collaborative environment, where market participants can benefit from ex-ante guidance provided by the FinHub and ex-post opportunities of compliance with the securities laws, even after a breach. This is the expression of a general trend of “eagerness in regulatory agencies to understand the promise of the new technology,”²⁴⁷ with the CFTC organizing FinTech forums²⁴⁸ and the Consumer Financial Protection Bureau (“CFPB”) opening an Office of Innovation.²⁴⁹

B. Potentially Negative Effects to Be Addressed

Notwithstanding the benefits emerging from the application of the securities laws to ICOs, this strategy may also have negative effects.

An obvious objection to the extension of the federal securities regulation to ICOs relates to the increased costs of compliance, particularly relevant in the world of blockchain, which is entirely dominated by highly innovative start-ups. Clearly, a trade-off between compliance costs and

245. *Financial Technology and Digitalisation*, FINMA (2016), <https://www.finma.ch/en/documentation/dossier/dossier-fintech/finanztechnologie-und-digitalisierung-2016>; *MAS Clarifies Regulatory Position on the Offer of Digital Tokens in Singapore*, MONETARY AUTHORITY SING. (Aug. 1, 2017), www.mas.gov.sg/News-and-Publications/Media-Releases/2017/MAS-clarifies-regulatory-position-on-the-offer-of-digital-tokens-in-Singapore.aspx.

246. *Id.*

247. Hester M. Peirce, Commissioner, Sec. & Exch. Comm’n, Lasting Impressions: Remarks Before the CV Summit—Crypto Valley (Nov. 7, 2018), <https://www.sec.gov/news/speech/peirce-lasting-impressions-crypto-valley-summit>.

248. U.S. COMMODITY FUTURES TRADING COMM’N, CFTC ANNOUNCES AGENDA FOR FINTECH FORWARD 2018 CONFERENCE (Sept. 28, 2018), <https://www.cftc.gov/PressRoom/PressReleases/7810-18>.

249. *CFPB Office of Innovation Proposes “Disclosure Sandbox” for Companies to Test New Ways to Inform Consumers*, CONSUMER FIN. PROTECTION BUREAU (Sept. 13, 2018), <https://www.consumerfinance.gov/about-us/blog/bcfp-office-innovation-proposes-disclosure-sandbox-fintech-companies-test-new-ways-inform-consumers>.

innovation exists: by increasing compliance costs, rules may reduce possibilities for new actors to disrupt the market. The so-called Simple Agreement for Tokens (“SAFT”), modeled after Simple Agreement for Equity (“SAFE”), emerged as a way to avoid the qualification of ICOs as securities, and consequentially reduce costs. With a similar intent, so-called airdrops spread in the blockchain start-ups space as an alternative to “more traditional” ICOs.²⁵⁰

The same incentives that push individual entrepreneurs to identify alternatives to the application of the federal securities regulators may be observed at a higher level, when taking into account regulatory initiatives to regulate blockchain, smart-contracts, and ICOs at the state level. The implementation of a rigid federal regulatory enforcement may favor state level initiatives, aimed at attracting new entrepreneurial initiatives, by creating safe-harbors to the federal securities laws. The most significant example is the state of Wyoming, which implemented an aggressive strategy aimed at attracting blockchain-oriented business developments.²⁵¹ The state of Wyoming recently adopted five bills on a broad range of issues related to blockchain. In particular, the Wyoming House Bill 70 - Open blockchain tokens-exemptions²⁵² (HB 70) tries to “carve out” an exemption for “utility tokens” by “laying down the law at the state level.”²⁵³ In relation to so-called “utility tokens,” HB 70 creates an exemption from specified securities and money transmission laws for persons “who develop, sell or facilitate the exchange of an open blockchain token”²⁵⁴ A recent bill²⁵⁵ provides for enhanced clarity on digital assets, identifying three different categories: digital securities, digital assets, and cryptocurrencies.²⁵⁶

The way states issued “ad-hoc” regulations may be viewed as an unusual and radical way to force the SEC to reconsider its extensive approach of securities laws towards ICOs to bring about a more flexible regime. One of the reasons why the SEC adopted such an “expansive approach” may relate

250. Brady Dale, *So Long ICOs, Hello Airdrops: The Free Token Giveaway Craze Is Here*, COINDESK (Mar. 16, 2018, 8:00 AM), <https://www.coindesk.com/long-icos-hello-airdrops-free-token-giveaway-craze>.

251. Mathew De Silva, *Wyoming Legislature Goes All In On Blockchain, Cryptocurrency Bills*, ETH NEWS (Mar. 8, 2018), <https://www.ethnews.com/wyoming-legislature-goes-all-in-on-blockchain-cryptocurrency-bills>.

252. H.R. 0070, 64th Leg., 2018 Budget Sess. (Wyo. 2018).

253. Rachel Wolfson, *U.S. State Of Wyoming Defines Cryptocurrency “Utility Tokens” As New Asset Class*, FORBES (Mar. 13, 2018), <https://www.forbes.com/sites/rachelwolfson/2018/03/13/u-s-state-of-wyoming-defines-cryptocurrency-utility-tokens-as-new-asset-class/#499e23d04816>.

254. H.R. 0070, 64th Leg., 2018 Budget Sess. (Wyo. 2018).

255. S. SF0125, 2019 Leg., 2019 Sess. (Wyo. 2019).

256. Darryn Pollock, *Wyoming Introduces Bill Offering Cryptocurrencies Legal Clarity to Attract Blockchain Business*, FORBES (Jan. 18, 2019, 3:40 PM), <https://www.forbes.com/sites/darrynpollock/2019/01/18/wyoming-introduces-bill-offering-cryptocurrencies-legal-clarity-to-attract-blockchain-business/#7937c96c46d5>.

to the structure of American federal agencies. The case of ICOs and cryptocurrencies is emblematic: by leading to a system with significant overlaps and concurrent jurisdiction, such structure may be an incentive for the SEC to establish itself as the main regulator in the space.

Significant negative consequences may arise from such state-level regulation of ICO tokens. First, it may lead to the creation of friction and conflicts of law in the short to medium term. Second, such regulatory fragmentation significantly increases uncertainty, with negative consequences for the international competitiveness of the United States, when compared to the above-mentioned international competitors (Switzerland and Singapore). Third, regulatory-state initiatives may trigger systematic competition between states: different from corporate law where Delaware law²⁵⁷ “won” the competition,²⁵⁸ effective securities regulation required the creation of a federal framework. In the present context, the risk of a “race to the bottom” rather than a “race to the top” is very real, due to a lack of established standards existing within the industry. Particularly relevant is the definition of “blockchain” and “smart contracts” that many different States have adopted.²⁵⁹ For this reason the Chamber of Digital Commerce, which emerged as one of the most important blockchain industry representatives in the United States, advocates the application of the existing federal regulatory framework, discouraging the individual states from developing independent definitions and regulations.²⁶⁰

In addition to the coordination of regulatory agencies and states, coordination of divisions and offices internal to the SEC and of the regulatory

257. American scholars have analyzed this topic for a long time. *See, e.g.*, Curtis Alva, *Delaware and the Market for Corporate Charters: History and Agency*, 15 DEL. J. CORP. L. 885 (1990); Catherine Barnard, *Social Dumping Revisited: Some Lessons from Delaware?*, ARCHIVE EUR. INTEGRATION (1999); William L. Cary, *Federalism and Corporate Law: Reflections upon Delaware*, 83 YALE L.J. 663 (1974); Jonathan R. Macey & Geoffrey P. Miller, *Toward an Interest-Group Theory of Delaware Corporate Law*, 65 TEX. L. REV. 469 (1987); Roberta Romano, *Law as a Product: Some Pieces of the Incorporation Puzzle*, 1 J.L. ECON. & ORG. 225 (1985). For the effects of the choice of Delaware on the value of the company, see, e.g., Lucian Arye Bebchuk, *Federalism and the Corporation: The Desirable Limits on State Competition in Corporate Law*, 105 HARV. L. REV. 1435 (1992); Reinhardt H. Schmidt & Gerald Spindler, *Path Dependence, Complementarity and Corporate Governance*, in CONVERGENCE AND PERSISTENCE IN CORPORATE GOVERNANCE 114 (Jeffrey N. Gordon & Mark J. Roe eds., 2004); Guhan Subramanian, *The Disappearing Delaware Effect*, 20 J.L. ECON. & ORG. 32 (2004); Robert Daines, *Does Delaware Law Improve Firm Value?* (Columbia Law Sch. Ctr. for Studies in Law & Econ., Working Paper No. 159, 2001).

258. *See* Marcel Kahan and Ehud Kamar, *The Myth of State Competition in Corporate Law*, 55 STAN. L. REV. 679 (2002).

259. *See* Marco Dell’Erba, *Do Smart Contracts Require a New Legal Framework? Regulatory Fragmentation, Self-Regulation, Public Regulation*, 5 U. PA. J.L. & PUB. AFF. (forthcoming 2020), <https://ssrn.com/abstract=3228445>.

260. *Joint Statement in Response to State “Smart Contracts” Legislation*, CHAMBER OF DIGITAL COMMERCE (Apr. 2018), <https://digitalchamber.org/wp-content/uploads/2018/04/Joint-Ltr-State-Smart-Contracts-Legislation.pdf>.

agencies involved in cryptocurrencies and ICOs is also important. From the perspective of the SEC's internal governance, the Commission recognized the need to coordinate internal efforts "across all SEC Divisions and Offices regarding the application of U.S. securities laws to emerging digital asset technologies and innovations, including Initial Coin Offerings and cryptocurrencies,"²⁶¹ and appointed an ad-hoc Associate Director in the Division of Corporate Finance.²⁶² As for coordination among authorities, in February 2018 SEC Chairman Jay Clayton and the CFTC Chairman Christopher Giancarlo jointly signed a note on the how important it is to "work together to bring transparency and integrity to these markets and, importantly, to deter and prosecute fraud and abuse . . . to be nimble and forward-looking; coordinated with our state, federal and international colleagues; and engaged with important stakeholders, including Congress."²⁶³ However, the reality led to different developments in key areas. For example, while the CFTC allowed crypto-derivatives markets to develop, the SEC adopted a more conservative approach, and did not approve "any application[s] to list an exchange-traded product based on cryptocurrencies or crypto-derivatives trade on U.S. exchanges."²⁶⁴ As the SEC Commissioner Pierce underlined, this conservative approach is a result of "a discomfort with the underlying markets in which cryptocurrencies trade, a skepticism of the ability of markets to develop organically outside of a traditionally regulated context, and a lack of appreciation for the investor interest in gaining exposure to digital assets as part of a balanced investment portfolio."²⁶⁵ This remark is helpful to analyze a last broader issue.

Critical to evaluating the SEC's enforcement strategy is recognizing that the SEC did not adequately emphasize the importance of self-regulation. A rigid and rigorous strategy of enforcement may contradict the systematic promotion of self-regulatory initiatives. In contrast, the CFTC, through Commissioner Brian Quintenz, recently promoted self-regulatory initiatives with regard to cryptocurrencies.²⁶⁶

While recommended as an important tool by the International Organization of Securities Commissions ("IOSCO"),²⁶⁷ self-regulation has often been criticized after the financial crisis of 2008. Starting from the assumption that

261. SEC Names Valerie A. Szczepanik Senior Advisor for Digital Assets and Innovation, U.S. SEC. & EXCH. COMM'N (June 4, 2018), <https://www.sec.gov/news/press-release/2018-102>.

262. *Id.*

263. Clayton & Giancarlo, *supra* note 5.

264. Peirce, *supra* note 247.

265. *Id.*

266. Brian Quintenz, Commissioner, Sec. & Exch. Comm'n, Keynote Address by Commissioner Brian Quintenz Before the DC Blockchain Summit (Mar. 7, 2018), <https://www.cftc.gov/PressRoom/SpeechesTestimony/opaquintenz8>.

267. See Int'l Org. of Sec. Comm'ns [IOSCO], *Objectives and Principles Of Securities Regulation* 5 (May 2017), <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD561.pdf>.

self-regulatory organizations (“SROs”) mainly operate in the interest of their members, they have traditionally raised concerns over inadequate incentives for the enforcement of a set of rules whose purpose may be effective protection of the interests of the community.²⁶⁸ Although the expansion of private regulation is often perceived “either as an expression of privatization or as a tool intended to re-regulate liberalized or deregulated fields in a more regulated-friendly environment,” private actors do not systematically opt for implementing deregulation or a lower degree of regulation.²⁶⁹

The American system has historically been very familiar with self-regulatory initiatives, and in particular the SEC and the CFTC have often delegated to SROs (securities industry organizations that are owned and operated by their members) a significant part of their regulatory powers.²⁷⁰ In general, the role of SROs consists of promoting professionalism of participants through examinations and licensing, designing rules governing their members’ practices, as well as enforcing their own rules and the federal securities laws, while conducting disciplinary proceedings and imposing sanctions on members for violations.²⁷¹ By promoting the creation of SROs for ICOs, the SEC would further normalize the regulatory debate in this sphere, while identifying adequate regulatory solutions and benefiting from specialized industry representatives who are committed to developing adequate regulatory standards beneficial for both the industry and investors.²⁷²

In Switzerland, FINMA successfully created an efficient self-regulatory framework. Consistent with an established tradition recognizing the importance of self-regulation as a tool beneficial for the markets,²⁷³ FINMA allowed the Crypto Valley Association to create independent policies. This regulatory approach contributed to the emergence of Zug’s Crypto Valley as

268. For an economic analysis see generally DAVID P. MCCAFFREY & DAVID W. HART, *WALL STREET POLICES ITSELF: HOW SECURITIES FIRMS MANAGE THE LEGAL HAZARDS OF COMPETITIVE PRESSURES* (1998); HEDVAH L. SHUCHMAN, *SELF-REGULATION IN THE PROFESSIONS: ACCOUNTING, LAW, MEDICINE* (1981).

269. Fabrizio Cafaggi, *Rethinking Private Regulation in the European Regulatory Space, Reframing Self-Regulation* 4 (Eur. Univ. Inst., Working Paper No. 2006/13, 2006), <http://cadmus.eui.eu/bitstream/handle/1814/4369/LAW2006.13.PDF;jsessionid=C75C897F5D17F4052CCC2500F282B83D?sequence=1>.

270. SROs are securities industry organizations that are owned and operated by their members. Examples of SROs are the National Association of Securities Dealers (“NASD”), the New York Stock Exchange (“NYSE”), the Chicago Board Options Exchange, and regional stock and option exchanges.

271. Peter De Marzo et al., *Contracting and Enforcement with a Self-Regulatory Organization*, at 1 (Aug. 2001), <http://ssrn.com/abstract=297302>; see also Peter M. DeMarzo et al., *Self-Regulation and Government Oversight*, 72 *REV. EC. ST.* 687 (2005).

272. For an analysis of self-regulation, see generally Julia Black, *Constitutionalising Self-Regulation*, 59 *MOD. L. REV.* 25 (1996); Julia Black *Decentering Regulation: Understanding the Role of Regulation and Self-Regulation in a ‘Post-Regulatory’ World*, 54 *CURRENT LEGAL PROBS.* 113 (2001).

273. *Self-Regulation In Swiss Financial Market Law*, SWITZ. FINANCIAL MARKET SUPERVISORY AUTHORITY, <https://www.finma.ch/en/documentation/self-regulation>.

one of the global blockchain hubs.²⁷⁴ In Hong Kong, the Fintech Association of Hong Kong identified a certain number of best practices for token sales since December 2017.²⁷⁵ A similar initiative took place in the United Kingdom, with the establishment of CryptoUK.²⁷⁶ Furthermore, the Japanese Financial Services Agency authorized the Japan Virtual Currency Exchange Association (JVCEA) as a self-regulatory body in Japan.²⁷⁷

In the United States, some private organizations have emerged in the last years or months: the Wall-Street Blockchain Alliance, the Chamber of Digital Commerce, the Brooklyn Project by Consensus, Messari (aspiring to be the “open source” SEC’s Edgar homologue in the crypto space),²⁷⁸ the Crypto Community Watch, and more recently the Stablecoin Foundation (mainly focused on stablecoins) and the Virtual Commodity Association (“VCA”). The VCA was proposed in March 2018 and launched in August 2018, and similar to the JVCEA focuses on cryptoexchanges and custodians.²⁷⁹ It is the industry’s first (and only) self-regulatory organization.²⁸⁰

C. Current Developments

1. Token Taxonomy Act

The newly proposed Token Taxonomy Act,²⁸¹ a bipartisan initiative promoted by Congressmen Warren Davidson and Darren Soto, polarized the political debate at the end of 2018 and may be a key issue in the coming months. First introduced in December 2018, it was reintroduced in April 2019, with Congressmen Josh Gottheimer, Tedd Budd, Scott Perry,

274. Komfie Manalo, *Blockchain’s Way Forward Is Self-Regulation*, *Swiss Crypto Executive Says*, CRYPTOVEST (Jul. 26, 2018), <https://cryptovest.com/news/blockchains-way-forward-is-self-regulation-swiss-crypto-executive-says>.

275. Best Practices for Token Sales, FINTECH ASS’N OF H.K. (Oct. 2018), <https://ftahk.org/publication/updated-ftahk-best-practices-token-sales-version-20-october-2018-document>.

276. See Code of Conduct, CRYPTOUK, <https://www.cryptocurrenciesuk.info/code-of-conducts> (last visited Feb. 2, 2020).

277. Omar Faridi, *Japan’s Virtual Currency Exchange Association (JVCEA) Now Authorized as Self-Regulatory Body*, CRYPTOLOBE (Oct. 24, 2018), <https://www.cryptoglobe.com/latest/2018/10/japan-s-virtual-currency-exchange-association-jvcea-now-authorized-as-self-regulatory-body>.

278. TwoBitIdiot, *Introducing Messari: An Open-Source EDGAR Database for Cryptoassets*, MESSARI (Oct. 26, 2017), <https://medium.com/tbis-weekly-bits/introducing-messari-an-open-source-edgar-database-for-cryptoassets-46fec1b402f6>.

279. See Aaron Stanley, *Just In Time? Winklevoss-Backed Crypto Self-Regulatory Effort Picks Up Steam*, FORBES (Aug. 20, 2018, 6:04 PM), <https://www.forbes.com/sites/astanley/2018/08/20/just-in-time-winklevoss-backed-crypto-self-regulatory-group-has-liftoff/#4a2cc0902ea5>.

280. See Paul Vigna, *Winklevoss Effort to Self-Regulate Cryptocurrency Gets Members*, WALL ST. J. (Aug. 20, 2018), <https://www.wsj.com/articles/winklevoss-effort-to-self-regulate-cryptocurrency-gets-members-1534804308>.

281. Token Taxonomy Act of 2019, H.R. 2144, 116th Cong. (2019).

and Tulsi Gabbard cosponsoring the new version of the bill.²⁸² The Token Taxonomy Act is a further direct consequence of the SEC's enforcement strategy. In a context with no clear statutory direction, the SEC was forced to refer to the *Howey* test as a "lodestar,"²⁸³ and apply the securities laws as the only way to pursue its statutory missions. The SEC's clear approach of defining digital tokens as "securities" has led to the proposal of the Token Taxonomy Act that proposes to amend the Securities Act and Exchange Act's definition of "security" and to add definitions for "digital tokens"²⁸⁴ and "digital units."²⁸⁵ Congressman Davidson emphasized the importance of certainty (together with no over-regulation) in the early days of the Internet as a key for America's innovation²⁸⁶ and a critical element to successfully compete with Switzerland and Singapore as a hub for cryptoeconomics,²⁸⁷ while pursuing investor protections.²⁸⁸ The Token Taxonomy Act achieves these goals by implementing the bottom-line philosophy that the existence of a functional network should exclude the applicability of securities laws.²⁸⁹

The Token Taxonomy Act excludes digital tokens from the definition of "security" and exempts "transactions involving the development, offer, or sale of a digital unit" under specific conditions from the Securities Act.²⁹⁰ In this way, the Token Taxonomy Act implements the view that digital tokens do represent an alternative asset class, and provides a definition of "digital token" based on four main elements: how the digital token is created, how

282. See Nikhilesh De, *Lawmakers Reintroduce Bill to Exempt Crypto Tokens From US Securities Laws*, COINDESK (Apr. 9, 2019, 7:01 PM), <https://www.coindesk.com/lawmakers-reintroduce-bill-to-exempt-tokens-from-us-securities-laws>.

283. Stephen Crimmins & Matthew Comstock, *How Congress Could Change The Game for Digital Tokens*, LAW360 (Jan. 10, 2019, 2:45 PM), <https://www.law360.com/articles/1116952/how-congress-could-change-the-game-for-digital-tokens>.

284. Art. 2 of the Token Taxonomy Act defines "digital token" as "a digital unit that (A) is created (i) in response to the verification or collection of proposed transactions; (ii) pursuant to rules for the digital unit's creation and supply that cannot be altered by a single person or group of persons under common control; or (iii) as an initial allocation of digital units that will otherwise be created in accordance with clause (i) or (ii); (B) has a transaction history that (i) is recorded in a distributed, digital ledger or digital data structure in which consensus is achieved through a mathematically verifiable process; and (ii) after consensus is reached, resists modification or tampering by a single person or group of persons under common control; (C) that is capable of being traded or transferred between persons without an intermediate custodian; and (D) that is not a representation of a financial interest in a company, including an ownership interest or revenue share." Token Taxonomy Act of 2019, H.R. 2144, 116th Cong. § 2(a)(20) (2019).

285. *Id.* § 2(a). In the Act, a digital unit is defined as "a representation of economic, proprietary, or access rights that is stored in a computer-readable format." *Id.*

286. See Press Release, Congressmen Warren Davidson, Darren Soto Introduce ICO Fix for Businesses, Consumers (Dec. 20, 2018), <https://davidson.house.gov/media-center/press-releases/congressmen-warren-davidson-darren-soto-introduce-ico-fix-businesses>.

287. *Id.*

288. See Crimmins & Comstock, *supra* note 283.

289. *Id.*

290. *Id.*

the underlying ledger operates, how transactions are executed, and what the token represents. Furthermore, the proposed Section 4(a)(8), amending the Securities Act, creates a “transactional exemption”²⁹¹ from registration requirements if the “person developing, offering, or selling the digital unit has a reasonable and good faith belief that the digital unit is a digital token.”²⁹² In this case, individuals have ninety days following a written notification from the Commission that the digital unit counts as a security to post public notice of such notification and take reasonable efforts to terminate all sales and return all proceeds originating from the sale, except for funds reasonably spent on the development of technology associated with the digital unit.²⁹³ This is consistent with the two recent SEC decisions leading to a “path to compliance,” *In re Carriereq Inc., d/b/a AirFox* and *In re Paragon Coin Inc.*²⁹⁴ In addition to the definitional changes applying to the Securities Act, further amendments were proposed for the Exchange Act. A “digital token” is defined under the same definition proposed for the Securities Act, but is excluded from the definition of “security.” As a consequence, non-registered broker-dealers do not infringe federal securities laws if they transact in digital tokens.²⁹⁵

If approved, the Token Taxonomy Act would reduce or even stop the regulatory competition (and the potential regulatory arbitrage) that emerged at the state level. Furthermore, it may contribute to a harmonized approach to ICOs and digital tokens, avoiding any risk of regulatory fragmentation, and benefitting the United States as a major blockchain/ICO hub. This is the way the European Union is currently structuring its regulatory action on crypto-assets and ICOs. The European Banking Authority (“EBA”)²⁹⁶ and the European Securities and Market Authority (“ESMA”)²⁹⁷ advocated for a common framework to pursue investor protection and safeguard investments, and the Committee on Economic and Monetary Affairs of the European Parliament has proposed to regulate ICOs in the context of the crowd-funding activities.²⁹⁸ Although the United States is the country with the

291. *Id.*

292. Token Taxonomy Act, H.R. 2144, 116th Cong. § 2 (c)(8)(A)(2019).

293. *Id.* § 2(c)(8)(B).

294. *See supra* Part II(B)(3).

295. *See* H.R. 2144 §§ 3(b)-(c).

296. *See Report with Advice for the European Commission by European Banking Authority*, at 7-9 (Jan. 9, 2019), <https://eba.europa.eu/documents/10180/2545547/EBA+Report+on+crypto+assets.pdf>.

297. *See Advice Initial Coin Offering and Crypto-Assets by European Securities and Markets Authority*, ESMA50-157-1391, at 4-7, 21 (Jan. 9, 2019), <https://www.esma.europa.eu/file/49978/download?token=56LqdNMN>.

298. Report on the Proposal for a Regulation of the European Parliament and of the Council on European Crowdfunding Service Providers (ECSP) for Business, EUR. PARL. DOC. A8-0364 (2018), https://www.europarl.europa.eu/doceo/document/A-8-2018-0364_EN.pdf?redirect.

highest number of ICO projects,²⁹⁹ Europe has emerged as the world's dominant "crypto region" in 2018, with a value of "token sales" reaching 4.1 billion U.S. dollars, against \$2.6 billion in the United States and \$2.3 billion in Asia, with important initiatives in France, Switzerland, and the United Kingdom.³⁰⁰ Europe also leads in the overall amount of investments in Fintech for 2018.³⁰¹

In addition to the Token Taxonomy Act, the SEC is opening the possibility of further interpretation of the existing framework. SEC Commissioner Hester M. Pierce's recent speech suggests that token offerings do not always fall perfectly within the scheme of securities offerings, and the decentralized nature of token offerings may imply that a company does not truly own or control the capital raised through token sales. Furthermore, Commissioner Pierce notes that decentralization affects the traditional functions of "issuers" or "promoters" that may "be performed by a number of unaffiliated people, or by no one at all."³⁰² As these words seem to suggest, a different approach may depend on the way decentralization will be interpreted. While a re-assessment of the *Howey* test³⁰³ or the formalization of a new test related to "decentralization" may be possible, this concept requires a more in-depth analysis by regulators and academics, and at the moment it would be difficult to make any consideration or prediction in this regard.

2. Stablecoins

Stablecoins represent an important market development.³⁰⁴ Stablecoins are cryptocurrencies maintaining a stable value against a target price, generally the U.S. dollar.³⁰⁵ Stablecoins combine liquid collateral (such as gold or the U.S. dollar)³⁰⁶ or algorithmic mechanisms of stabilization with the man-

299. *ICO Statistics - By Country*, ICO Watch List, (last visited Feb. 5, 2020), <https://icowatchlist.com/statistics/geo>.

300. Trista Kelley, *Europe is Killing it in Crypto*, BUS. INSIDER (Oct. 16, 2018), <https://www.businessinsider.com/value-crypto-ico-europe-us-asia-2018-10>; Hannah Murphy & David Keohane, *France Plans Rules to Lure Cryptocurrency Business*, FIN. TIMES (Mar. 22, 2018), <https://www.ft.com/content/2e7b2778-2d22-11e8-9b4b-bc4b9f08f381>.

301. See KPMG, *THE PULSE OF FINTECH 2018 31* (Jul. 31, 2018), <https://assets.kpmg/content/dam/kpmg/xx/pdf/2018/07/h1-2018-pulse-of-fintech.pdf>.

302. Peirce, *supra* note 95.

303. See Todd Henderson & Max Raskin, *A Regulatory Classification of Digital Assets: Towards an Operational Howey Test for Cryptocurrencies, ICOs, and Other Digital Assets* 2019 COLUM. BUS. L. REV. 443, 549 (2019).

304. For a broad analysis, see generally Marco Dell'Erba, *Stablecoins in Cryptoeconomics: From Initial Coin Offerings (ICOs) to Central Bank Digital Currencies (CBDCs)*, N.Y.U. J. LEGIS. & PUB. POL'Y 1, 5 (2019).

305. Nathan Sexer, *State of Stablecoins*, CONSENSYS MEDIA (July 24, 2018), <https://media.consensys.net/the-state-of-stablecoins-2018-79ccb9988e63>.

306. Sherman Lee, *Explaining Stable Coins, The Holy Grail Of Cryptocurrency*, FORBES (Mar. 12, 2018), <https://www.forbes.com/sites/shermanlee/2018/03/12/explaining-stable-coins-the-holy-grail-of-cryptocurrency/#4db76f8f4fc6>.

agement of the supply “to incentivize the market to trade the coin for no more or less than \$1.”³⁰⁷ A collateral of high quality (those that are extremely liquid, such as the U.S. dollar or gold) should in principle lead to the dual effect of making the stablecoin both stable and liquid. A new wave of stablecoins implement models that use other digital assets as collateral or are not collateralized at all, opting for riskier algorithmic mechanisms of price stabilization.³⁰⁸

Stablecoins experienced an exponential growth in the last two years. Their market value marked an impressive growth of 700% in 2018³⁰⁹ and gained further momentum in 2019.³¹⁰ Stablecoins emerged as a global phenomenon, with projects in North America, Europe, Asia, the Middle East, and Oceania. Stablecoins are also attracting important global market players, such as banks (in particular J.P. Morgan³¹¹) and technology players (including Facebook, Amazon, Paypal). These stakeholders may have different interests in stablecoins. While J.P. Morgan intended to develop a framework for efficiently managing internal operations with JP Coin, the Libra Foundation (regrouping Facebook, Amazon, and other prominent giant techs) conceives Libra Coin as a global payment system, open in principle to a very broad audience.³¹²

Stablecoins are interesting for several reasons. Their hybrid characteristics may lead to an interplay between different regulatory authorities (such as the SEC and CFTC), who may have jurisdiction over this new product. As a consequence, stablecoins will be useful in testing the interpretation of the securities³¹³ and commodities regulations with regard to tokens and cryptocurrencies. Furthermore, they will serve to verify whether enhanced coordination at the national as well as at the international level (IMF, World

307. *What is a Stable Coin?*, CRYPTOCURRENCY FACTS (last visited Feb. 5, 2020), <https://cryptocurrencyfacts.com/what-is-a-stable-coin>.

308. See Kirill Bryanov, *Breaking the Peg: Every Stablecoin Has Its Points of Failure*, COINTELEGRAPH (Nov. 18, 2018), <https://cointelegraph.com/news/breaking-the-peg-every-stablecoin-has-its-points-of-failure>.

309. See Fan Wen, *Stablecoin—“Bad” Idea, “Good” Investment*, MEDIUM (Sep. 30, 2018), <https://medium.com/coinmonks/stablecoin-bad-idea-good-investment-f35b79b21016>.

310. See Rachel Wolfson, *Stablecoins Could Unleash Wall Street Adoption Of Blockchain Technology*, FORBES (Feb. 20, 2019, 8:00 AM), <https://www.forbes.com/sites/rachelwolfson/2019/02/20/stablecoins-could-unleash-wall-street-adoption-of-blockchain-technology/#a40ae14453c9>.

311. Hugh Son, *JP Morgan is Rolling out the First US Bank-Backed Cryptocurrency to Transform Payments Business*, CNBC (Feb. 13, 2019, 7:13 PM), <https://www.cnbc.com/2019/02/13/jp-morgan-is-rolling-out-the-first-us-bank-backed-cryptocurrency-to-transform-payments-.html>.

312. See LIBRA, WHITE PAPER (2019), .

313. The U.S. Congress has discussed the possibility of a “Stablecoins Are Securities Act of 2019,” referring to “managed stablecoins.” See Jason Brett, *“Stablecoins Are The New Bitcoin” In Congress*, FORBES (Oct. 26, 2019, 11:24 PM), <https://www.forbes.com/sites/jasonbrett/2019/10/26/stablecoins-are-the-new-bitcoin-in-congress/#35920ba35bc4>.

Bank, Financial Stability Forum, G20) can be achieved in the context of cryptocurrencies. Finally, from a purely monetary policy perspective, stablecoins triggered an unprecedented debate on the legitimacy of similar initiatives that could potentially undermine the role of “public” central bankers. Therefore, stablecoins may be a catalyst for public initiatives leading to the creation of public stablecoins, with potential disruptive consequences for the existing market and banking structure.

CONCLUSION

The SEC’s decision to fully enforce the securities laws in the ICO context should be considered a positive, and it certainly contributes to the creation of a safer (and healthier) environment for ICOs, with positive consequences for the development of the entire blockchain industry and its so-called “second generation applications” based on smart-contracts. The recent creation of the FinHub and the possibility to adhere to a “path to compliance” as in the two recent cases *In re Carriereq, Inc., d/b/a AirFox* and *In re Paragon Coin Inc.* may have opened an era of enhanced collaboration between the Commission and market participants. In this environment, market participants can benefit from prior guidance provided by FinHub and opportunities to comply with the securities laws after a breach. An essential precondition is a “well-established and well-functioning federal securities law framework, to be applied when dealing with securities law framework regardless of whether the securities are issued in certificated form or using new technologies, such as blockchain.”³¹⁴

After the shift towards a phase characterized by more systematic securities law enforcement, data on ICOs demonstrates that such an approach has not irreversibly damaged the industry. The United States holds primacy in terms of number of projects worldwide (15.94%),³¹⁵ and U.S. investments in the first half of 2018 have overcome 2017’s total,³¹⁶ as reported by KPMG.³¹⁷ In addition, the growing number of Reg D and Reg S-1 filings related to ICOs (and more generally to blockchain) indicate that ICOs have reached a new phase in which entrepreneurs, developers, and issuers more appropriately target accredited and institutional investors (in principle, more expert and sophisticated investors), rather than non-sophisticated investors.

314. *Statement on Digital Asset Securities*, *supra* note 156.

315. *ICO Statistics - By Country*, *supra* note 299.

316. See Jay Derenthal, *2018 Blockchain and Initial Coin Offering Investment Already Exceeds 2017 Total*, NASDAQ (Sept. 5, 2018, 8:53 AM), <https://www.nasdaq.com/article/2018-blockchain-and-initial-coin-offering-investment-already-exceeds-2017-total-cm1017687>.

317. KPMG, *THE PULSE OF FINTECH 2018, BIENNIAL GLOBAL ANALYSIS OF INVESTMENT IN FINTECH 2* (July 31, 2018), <https://home.kpmg.com/content/dam/kpmg/us/pdf/2018/07/pof-1H-18-report.pdf>.

A prolonged phase of non-intervention would have increased uncertainty to the detriment of investors and entrepreneurs and put the United States at a disadvantage in the international arena. However, in the short to medium term, it will be important to address the potential fragmentation of the securities law framework, a risk emerging from the adoption of state-level regulation aimed at attracting new entrepreneurial initiatives. Similar risks may originate from a lack of coordination between the authorities involved in cryptocurrencies and ICOs, in particular the SEC and the CFTC. Further, the SEC should take steps to identify authoritative industry representatives, promoting the creation of SROs that may contribute to the development of reliable self-regulatory standards.

