
CRYPTO-ENFORCEMENT AROUND THE WORLD

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INTRODUCTION

The market for cryptoassets is burgeoning as distributed ledger technology transforms financial markets. With the extraordinary growth in the crypto-markets comes the need for regulation to promote efficiency, capital formation, and innovation while protecting investors. With the need for regulation comes enforcement. The blockchain revolution in capital and financial markets has already attracted the attention of enforcement agencies in many jurisdictions. In this Article, we elaborate on crypto-related enforcement and report on the results of the Enforcement Survey conducted by the Rutgers Center for Corporate Law and Governance Fintech and Blockchain Research Program.¹

We find that the United States Securities and Exchange Commission (“SEC” or “Commission”) brings more enforcement actions against digital-

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1. DOUGLAS S. EAKELEY & YULIYA GUSEVA, WITH LEO CHOI & KATARINA GONZALEZ, REPORT: CRYPTO-ENFORCEMENT AROUND THE WORLD, RUTGERS CENTER FOR CORPORATE LAW AND GOVERNANCE, FINTECH AND BLOCKCHAIN PROGRAM (2020) (unpublished manuscript) (on file with authors) [hereinafter CORPORATE LAW CENTER’S REPORT].

asset issuers, broker-dealers, exchanges, and other crypto-market participants than any other major crypto-jurisdiction. By the same token, its enforcement entails more serious penalties. In addition to reviewing the international data, we provide detailed comparisons of the crypto-enforcement actions of the United States Commodity Futures Trading Commission (“CFTC”) and the crypto-enforcement program of the SEC. Whereas SEC enforcement has been relatively stable, CFTC cases have been trending up. By contrast, enforcement in foreign jurisdictions seems to be subsiding. Our data raise theoretical questions on regulation via enforcement, its effect on financial innovation, and regulatory competition.

In Part I, we start with discussing the pros and cons of regulation by enforcement, as well as its consequences for innovation and a possible outflow of capital. Part II describes the methodology of the research. Part III presents the main findings. Parts IV and V discuss SEC and CFTC enforcement data, respectively, while Part VI compares the enforcement actions of the two regulators.

I. REGULATION BY ENFORCEMENT IN GLOBAL FINANCIAL MARKETS

The United States does not have a regulatory framework designed for crypto-markets, which effectively creates a pure regulation via enforcement environment.² This regulatory approach has been the subject of a long-standing scholarly debate that dates back several decades.³ One of the germane concerns is that regulation by enforcement, rather than substantive rulemaking in accordance with the Administrative Procedure Act,⁴ *assumes* that the pre-crypto rules are appropriate for complex technological innovations. Moreover, the regulators are spared the need to engage in a notice of rulemaking, comments, and a cost-benefit analysis to determine rule suitability—or the need for a different regulatory regime.

The second relevant dynamic is that, to the extent that the U.S. regulators pursue actions not only against domestic companies but also foreign parties that raise only part of their capital from United States

2. See generally Yuliya Guseva, *The Leviathan of Securities Law in Cryptoasset Markets: A Cost-Benefit Analysis* (2020) (unpublished manuscript) https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3694709 [<https://perma.cc/K8X5-WVB5>].

3. *Id.* (providing relevant arguments and summarizing the debate); see also Yuliya Guseva, *The SEC, Digital Assets, and Game Theory*, J. CORP. L. (forthcoming 2021) [hereinafter Guseva, *Game Theory*]. On the relationship between financial innovations and enforcement, see, for example, Jill E. Fisch, *Top Cop or Regulatory Flop? The SEC at 75*, 95 VA. L. REV. 785 (2009); Steven M. Davidoff & David Zaring, *Regulation by Deal: The Government's Response to the Financial Crisis*, 61 ADMIN. L. REV. 463, 469, 538 (2009).

4. 5 U.S.C. § 500 et seq.

investors or deal predominantly with foreign parties, their actions affect the global cryptoasset market. Consider also that national enforcers may refer cases to their foreign homologues and rely on international soft law and the expanding framework of Memoranda of Understanding (“MOUs”), the Multilateral MOU among securities regulators, and other cooperative arrangements.⁵ The data examined in this Article indicate, however, that national crypto-related enforcement seems to be a typical practice in the United States. Put differently, it is U.S.-centric.

This is despite the panoply of factors that are thought to limit national enforcement activity. To name several relevant arguments, regulators may be risk averse, exhibit behavioral biases,⁶ have bureaucratic processes for initiating enforcement actions,⁷ face resource constraints, can pursue only actions that have a high policy signaling and programmatic value,⁸ do not have the resources to prosecute all possible violations, and must economize by carefully selecting cases.⁹ Despite these realities, as this Article demonstrates, U.S. crypto-enforcement is singularly robust.

In that respect, our findings also confirm the previous comparative studies that suggests—particularly in regard to the SEC—that the United States has very active securities and financial law enforcement agencies.¹⁰

5. See, e.g., *SEC's Cooperative Arrangements with Foreign Regulators*, SEC. & EXCHANGE COMMISSION, https://www.sec.gov/about/offices/oia/oia_cooparrangements.shtml [<https://perma.cc/YV P9-LKWL>]; *Memorandum from the CFTC on International MOUs*, CFTC <https://www.cftc.gov/International/MemorandaofUnderstanding/index.htm> [<https://perma.cc/2LNA-G55S>]. See generally Howell E. Jackson, *The Impact of Enforcement: A Reflection*, 156 U. PA. L. REV. PENNUMBRA 400, 408–409 (2008); Pierre-Hugues Verdier, *The Political Economy of International Financial Regulation*, 88 IND. L.J. 1405 (2013); Roger Silvers, *Cross-Border Cooperation Between Securities Regulators*, 69 J. ACCT. & ECON. 1 (2020); Roger Silvers, *The Effects of Cross-Border Cooperation on Enforcement and Earnings Attributes* (Oct. 4, 2017) (unpublished manuscript) <https://ssrn.com/abstract=3047913> [<https://perma.cc/Q5EY-K4KV>]; Roger Silvers, *The Influence of Cross-Border Cooperation on Market Liquidity* 5–6 (Nov. 19, 2017) (unpublished manuscript) <https://ssrn.com/abstract=3073831> [<https://perma.cc/GT J2-4B6Y>].

6. See, e.g., Amanda M. Rose, *The Multienforcer Approach to Securities Fraud Deterrence: A Critical Analysis*, 158 U. PA. L. REV. 2173, 2216–18 (2010).

7. See, e.g., James J. Park, *Rules, Principles, and the Competition to Enforce the Securities Laws*, 100 CALIF. L. REV. 115 (2012).

8. See, e.g., Eric J. Pan, *Understanding Financial Regulation*, 2012 UTAH L. REV. 1897 (2012); Jonathan R. Macey, *The Distorting Incentives Facing the U.S. Securities and Exchange Commission*, 33 HARV. J.L. & PUB. POL'Y 639, 645 (2010); Stephen J. Choi & A.C. Pritchard, *The SEC's Shift to Administrative Proceedings: An Empirical Assessment*, 34 YALE J. ON REG. 1 (2017); Guseva, *Game Theory*, *supra* note 3; James J. Park & Howard H. Park, *Regulation by Selective Enforcement: The SEC and Initial Coin Offerings*, 61 WASH. U. J.L. & POL'Y 99 (2020).

9. See generally Harvey L. Pitt & Karen L. Shapiro, *Securities Regulation by Enforcement: A Look Ahead at the Next Decade*, 7 YALE J. ON REG. 149 (1990); see also COMMODITY FUTURES TRADING COMM'N, DIV. OF ENF'T., ENFORCEMENT MANUAL (2020).

10. Rafael La Porta, Florencio Lopez-de-Silanes & Andrei Schleifer, *What Works in Securities Laws?*, 61 J. FIN. 1, 11–13 (2006); see also PIERRE-HUGUES VERDIER, *GLOBAL BANKS ON TRIAL* 7 (2020).

For instance, in 2006, La Porta, Lopez-de-Silanes, and Shleifer (“LLS”) constructed the public enforcement index measuring enforcement intensity.¹¹ The United States was at the head of the pack. In 2009, Jackson and Roe, using LLS’s index, established a correlation between public enforcement and stock market development.¹² They also observed that “securities markets that have been most successful in attracting new listings in recent decades—the United Kingdom, Hong Kong, Luxembourg, and, until recently, the United States—dedicate high levels of resources to securities enforcement.”¹³

Professor Jackson, comparing enforcement in the United States, including actions brought by the SEC, other federal regulators, and state agencies, found that the intensity of enforcement in the United States was significantly higher than in several other main financial centers.¹⁴ Professor Coffee, assessing Jackson’s data, discussed the differences between the softer approach of the United Kingdom Financial Services Authority (which was the main securities regulator in the United Kingdom at the time his article was written) and the SEC. According to Coffee, “intensity of enforcement may be the factor that best distinguishes the United States from other international market centers”¹⁵ The SEC, “with its very different emphasis on litigation, deterrence, and high penalties, appears to stand apart” among its peer-regulators.¹⁶ Our data are in accord with these conclusions.

In the evolving world of technology, the data call for additional research on the *efficiency* of regulation via enforcement and the possible effect of regulation by enforcement on *financial innovations*. In capital markets, the multifaceted statutory objectives of the SEC, which is simultaneously charged with protecting investors and supporting efficient, innovative, and competitive markets, put the Commission in a tricky situation.¹⁷

On the one hand, investors need to be protected from the animal spirits of infinitely ingenious financial entrepreneurs, including crypto-firms. Enforcement may produce positive outcomes such as taming fraud and channeling an unruly fast-evolving market towards a more orderly

11. La Porta et al., *supra* note 10.

12. Howell E. Jackson & Mark J. Roe, *Public and Private Enforcement of Securities Laws: Resource-Based Evidence*, 93 J. FIN. ECON. 207 (2009).

13. *Id.* at 234.

14. Howell E. Jackson, *Variation in the Intensity of Financial Regulation: Preliminary Evidence and Potential Implications*, 24 YALE J. ON REG. 253 (2007).

15. John C. Coffee, Jr., *Law and the Market: The Impact of Enforcement*, 156 U. PA. L. REV. 229, 242 (2007).

16. *Id.* at 281.

17. *See, e.g.*, Chris Brummer & Yesha Yadav, *Fintech and the Innovation Trilemma*, 107 GEO. L.J. 235, 249–64 (2019).

infrastructure.¹⁸ On the other hand, regulation and enforcement may stifle innovations or drive capital to other jurisdictions.¹⁹ A pertinent example of these reactions is the restrictions imposed on U.S. investors' access to a major global exchange.²⁰ The potential pitfalls of the SEC's crypto-regulation by enforcement are also illustrated by recent cases such as *SEC v. Telegram Group, Inc.*²¹ Following the decision, Telegram was forced to discontinue its promising innovative project.²²

We cannot rule out the possibility that the SEC and the CFTC have become active enforcers because of the sheer size of the United States financial markets. Yet, this explanation is incomplete. For instance, Singapore had a sizeable share of Initial Coin Offerings ("ICOs"),²³ which were the focus of the SEC enforcement efforts in 2017–2020. However, Singapore does not seem to have a similarly intensive enforcement program.²⁴

We would like to avoid drawing unnecessarily far-reaching conclusions or providing a normative assessment of U.S. policies in this paper. Instead, our findings suggest that crypto-markets represent an important case study that merits further research on regulation via enforcement, innovation, and regulatory competition.

18. See, e.g., Frank Partnoy, *The Right Way to Regulate from Behind*, 18 N.C. BANKING INST. 113, 118 (2013).

19. See, e.g., Chris Brummer, *How International Financial Law Works (and How It Doesn't)*, 99 GEO. L.J. 257, 267 (2011); Yesha Yadav, *Fintech and International Financial Regulation*, 53 VAND. J. TRANSNAT'L L. 1109, 1142 (2020) (discussing regulatory competition in the Asia-Pacific region); Hester M. Peirce, Comm'r, U.S. Sec. & Exch. Comm'n, *Running on Empty: A Proposal to Fill the Gap Between Regulation and Decentralization* (Feb. 6, 2020), <https://www.sec.gov/news/speech/peirce-remarks-blockress-2020-02-06> [<https://perma.cc/9DF7-Z3UH>]; Carol R. Goforth, *Regulation of Crypto: Who is the SEC Protecting?*, AM. BUS. L.J. (forthcoming 2021) (manuscript at 4) https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3801177 [<https://perma.cc/9LA8-PXK8>]. For global ICO data, see ICOBENCH, *ICO MARKET MONTHLY ANALYSIS NOVEMBER 2019 21* (2019) https://icobench.com/reports/ICObench_ICO_Market_Analysis_November_2019.pdf [<https://perma.cc/N2LV-2XSM>]; *Top Countries and ICOs*, ICOBENCH, <https://icobench.com/stats> [<https://perma.cc/TZ96-6KXQ>].

20. Brand Voice, *Binance Finally Blocks United States Users*, YAHOO! FIN. (Nov. 17, 2020), <https://finance.yahoo.com/news/binance-finally-blocks-united-states-115803718.html> [<https://perma.cc/NMP2-33WS>]; Yogita Khatri, *Binance Has Begun to Block U.S. Users from Accessing its Exchange Platform*, THE BLOCK (Nov. 9, 2020, 2:18 PM), <https://www.theblockcrypto.com/post/84020/binance-blocking-us-users-exchange-email-2> [<https://perma.cc/9F4W-56BX>].

21. *SEC v. Telegram Grp. Inc.*, No. 19-cv-9439, 2020 U.S. Dist. LEXIS 53846 (S.D.N.Y. Mar. 24, 2020).

22. Nikhilesh De, *Telegram Abandons TON Blockchain Project After Court Fight With SEC*, COINDESK (May 12, 2020, 10:03 AM), <https://www.coindesk.com/telegram-abandons-ton-blockchain-project-after-court-fight-with-sec> [<https://perma.cc/L9WX-UKTU>].

23. For sources on ICO data, see *supra* note 19.

24. For a detailed discussion of the foreign jurisdictions in the sample, see CORPORATE LAW CENTER'S REPORT, *supra* note 1.

II. RESEARCH METHODOLOGY AND DATA COLLECTION

A. OVERVIEW

As Jackson's analysis demonstrates, comparative work is inherently complex. For one, "[t]he means by which regulators enforce legal requirements may well differ materially around the world."²⁵ Comparative empirical studies are also fraught with the risk of miscoding and inaccuracies in comparing regulatory practices.²⁶ We have encountered precisely these issues in the course of our survey.

We have attempted to overcome comparative and methodological discrepancies by using a granular categorization of various types of actions. Our data segregate court actions, warnings, blacklisting, and other types of enforcement into separate categories. Many agencies presented their reports and data in different formats, which made it challenging to analyze the data and run point-by-point comparisons.

Another main challenge for our study was that, as is common for U.S. enforcement, the SEC and the CFTC often file charges against multiple defendants/respondents in one sweeping action. This practice is rational and enables the agencies to economize on their resources and maximize efficiency: the same staff members would work on a specific case and use the same evidence to implicate not only the firms involved but also the individuals orchestrating the schemes.

Foreign regulators in our sample have mainly provided warnings or blacklisting notifications to *specific* individuals and companies. Only 16 non-U.S. actions named multiple defendants or respondents, which comprised 5% of all non-U.S. actions. By contrast, 52% of the U.S. cases were brought against multiple defendants or respondents.

Since we used the blacklisted and/or warned firms and individuals as the unit of analysis, these raw data could not be directly juxtaposed and compared with the U.S. data because the results would either understate or overstate enforcement intensity in the United States. Namely, having the data for the United States sorted by multi-defendant actions could lead to an

25. Jackson, *supra* note 5, at 407.

26. Holger Spamann was among the first scholars who unearthed multiple problems with quantitative cross-country studies. See, e.g., Holger Spamann, *Large Sample, Quantitative Research Designs for Comparative Law?*, 57 AM. J. COMP. L. 797 (2009); Holger Spamann, *On the Insignificance and/or Endogeneity of La Porta et al.'s 'Anti-Director Rights Index' Under Consistent Coding*, Harvard Law Sch. John M. Olin Ctr., Discussion Paper No. 7 (Apr. 4, 2006), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=894301 [<https://perma.cc/8EZ5-LDWF>], Holger Spamann, *'Law and Finance' Revisited*, Harvard Law Sch. John M. Olin Ctr., Discussion Paper No. 12 (July 30, 2009), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1095526 [<https://perma.cc/Q3CG-KX4A>].

understating of the overall enforcement activity in the United States. The opposite could be true as well: counting every defendant and/or respondent in SEC and CFTC actions could possibly overstate U.S. enforcement activity because it would ignore the above-mentioned cost savings and economies in multi-defendant actions.

To resolve this dilemma, we have done the following: The unit of analysis for non-U.S. agencies is entities and individuals. To avoid overstating or understating our results for the United States, we provide two sets of data grouped by: (1) the count for the defendants/respondents; and (2) the count for the number of actions. Both are then compared with non-U.S. enforcement. This dichotomous approach allows us to compare the disparity between U.S. regulators and non-U.S. regulators using substantially similar units of analysis.

Regardless of the approach, it is undisputable that the United States agencies, particularly the SEC, are the leaders in terms of the number of actions and the seriousness of enforcement penalties. Our results illustrate how the U.S. agencies regulate the crypto-market via enforcement.

B. DATA COLLECTION

1. Jurisdictions, Regulators, and Keywords

The timeframe of our research was from mid-July 2017 through April 30, 2020. Our sample included 23 jurisdictions²⁷ selected based on the strength of their cryptoasset markets, including ICO activity, and public statements made by their national crypto-related regulators. The first step in identifying enforcement actions was to search for the financial or securities regulators in the jurisdictions in our sample. Most international jurisdictions have at least one regulator, which can be found searching the Library of Congress' survey on cryptocurrency regulation around the world.²⁸ Once on their website, if the regulator had a search bar, the following keywords were used to search for crypto-related enforcement actions and warnings issued:

- Crypto
- Cryptocurrencies
- Blockchain

27. The targeted jurisdictions researched included: United States, Australia, Bermuda, China/Hong Kong, Dubai, India, South Korea, Luxembourg, Malta, Netherlands, Singapore, Switzerland, United Arab Emirates ("UAE"), United Kingdom, Russia, France, South Africa, Kenya, Canada, Argentina, Russia, Mexico, and Cayman Islands.

28. *Regulation of Cryptocurrency Around the World*, LIBR. OF CONGRESS, <https://www.loc.gov/law/help/cryptocurrency/world-survey.php> [<https://perma.cc/2YJB-3WB3>].

- Token
- Digital Asset
- Coin
- Digital Coin
- Initial Coin Offering | ICO
- Security Token Offering | STO
- Initial Exchange Offering | IEO
- Simple Agreement for Future Tokens | SAFT
- Bitcoin

Bloomberg Law was also used for its ICO Tracker feature. However, the Tracker did not include more recent actions. If the search results did not yield any enforcement actions or warnings issued, the next course of action was to manually browse enforcement publications by year. The only jurisdiction that had a separate category for crypto-related entities was France’s Autorité des Marchés Financiers (“AMF”).

To identify SEC actions, we used the same keywords and reviewed all enforcement actions brought by the SEC against cryptoasset issuers, “crypto-gatekeepers” (that is, crypto-exchanges, attorneys, broker-dealers, and rating agencies), and investment funds operating in digital-asset markets between mid-July 2017 and April 30, 2020. The starting point was the Cyber Enforcement Actions reported on the SEC’s website. Dockets were manually searched for additional data. We reviewed all complaints and final decisions.²⁹

To find CFTC actions against crypto-related entities, we reviewed the CFTC Enforcement Actions³⁰ and searched Bloomberg Law. We entered the data for the SEC and the CFTC based on the dates of their respective press releases, which mainly coincided with the dates when the respective actions were brought in federal courts, the dates of settlements, or the dates of trading suspensions.

2. *Data Collection Obstacles*

This research involved multiple international sources from jurisdictions publishing data not only in English but also in foreign languages. The

29. The detailed results on SEC enforcement are presented in Guseva, *Game Theory*, *supra* note 3.

30. *Enforcement Actions*, COMMODITY FUTURES TRADING COMMISSION, <https://www.cftc.gov/LawRegulation/Enforcement/EnforcementActions/index.htm> [<https://perma.cc/7Y7M-TZQY>].

relevant pain point was the quality of translation in some cases. Without being able to search in native languages, it is possible that the meaning and reasons for some regulatory actions may have been lost.

Additionally, the search function on many regulatory agencies' websites did not function as anticipated. This Article includes the data primarily from regulators that provided sufficient search capabilities. Unfortunately, some regulators, such as China's Securities Regulatory Commission, did not yield any results after searching with our selected keywords. At the same time, China has an active criminal enforcement program involving money laundering in crypto-related cases.³¹ This suggests that China may be using different methods of enforcement compared with the securities and commodities regulators covered in this Article.

France's AMF was a standout regulator in terms of search functionalities. The AMF website has a separate category within its advanced search bar for crypto-related entities. It is likely that we have been able to find more activity from the AMF compared to other regulators because of this search function.

Another major obstacle was the insufficiently detailed information provided by the regulators. For example, the Australian Transaction Report and Analysis Center kept the details of the actions anonymous, while Switzerland's Financial Market Supervisory Authority ("FINMA") did not provide dates when entities were added to its warning list. Although France and the United Kingdom had robust lists of blacklisted and warning-listed entities, they did not provide adequate details as to why those entities and individuals had been added.

The parties listed on the blacklists and warning lists often did not have live websites. This made it difficult to search for the reasons as to why they were included on the blacklists and warning lists. In some cases, a "scam website" was able to be identified through third-party review websites that provided some information on these blacklisted entities. Unlike the SEC and the CFTC, there were not many non-U.S. press releases related to administrative or judicial actions against crypto-related entities, which made it difficult to trace the activities of the entities.

C. DEFINITIONS USED IN THIS ARTICLE

Throughout this Article, the term "enforcement action" means a regulatory action against a crypto-related entity that resulted in some formal

31. See Wolfie Zhao, *How a Money Laundering Crackdown in China is Ensnaring Crypto OTC Trading*, THE BLOCK (Nov. 19, 2020, 12:03 PM), <https://www.theblockcrypto.com/daily/85186/money-laundering-crackdown-china-crypto-otc> [https://perma.cc/6FQC-EM2V].

proceeding. An enforcement action may or may not have entailed a monetary fine, penalty, or disgorgement. The other commonly-used terms are as follows:

“Blacklist” is not defined by the regulators, and, therefore, we are unable to clarify the regulators’ intentions in labeling such action as a blacklist.

“Investigation” means there was a formal investigation commenced. It does not mean that the investigation has concluded or resulted in penalties.

“Other” has multiple meanings, and we hope it is clear by context. “Other” may mean “unknown” because of the lack of data about an entity. This occurred mostly in the warning lists provided by the United Kingdom, France, and Switzerland. “Other” may also mean a crypto-related company that is not a broker-dealer, crypto-exchange, or an ICO Issuer. Generally, “Other” crypto-related companies were private funds and wallet service providers.

“Pending” means there is an ongoing investigation or proceeding.

“Settlement” means that after an initial or several proceedings, the entity settled with the regulator and may or may not have been subject to fines, other penalties, and/or disgorgement.

“Warning” means an official warning from a regulator against a crypto-related entity. Generally, warnings were directed to the investing public and not to the entities themselves for cases of non-compliance.

“Cryptoassets” and “digital assets” include tokens and coins that are classified as digital-asset securities, digital-asset commodities, and/or payment-related assets that fall within the jurisdiction of financial, securities, and commodity regulators.

III. MAJOR EMPIRICAL FINDINGS

Out of the 23 financial market jurisdictions³² researched, only 14 countries have either commenced enforcement actions or issued official warnings. Except for the United States, many countries have pursued a lenient enforcement approach in crypto despite the media attention and press releases stating their intentions to harshly pursue any violations of law.³³

32. See *supra* note 27.

33. See, e.g., *SFC Warns of Cryptocurrency Risks*, SEC. & FUTURES COMM’N (H.K.) (Feb. 9, 2018), <https://www.sfc.hk/edistributionWeb/gateway/EN/news-and-announcements/news/doc?refNo=18PR13> [<https://perma.cc/G9D8-B6G4>]; *Swiss Regulator Cracks Down on Fraudulent Crypto Activities*, FINMA (SWITZ.) (Apr. 2, 2020, 3:28 PM), https://www.swissinfo.ch/eng/finma-annual-report_swiss-regulator-cracks-down-on-fraudulent-crypto-

Tables 1 and 1.1 present a general overview of our results. The Tables cover all enforcement actions brought in-house (that is, in administrative proceedings), complaints filed in courts, warnings, and blacklists. The distinction between court cases and administrative enforcement proceedings (“Enforcement Action” in the Tables) is mainly applicable to the U.S. agencies and Canadian agencies.

The Tables demonstrate that the CFTC and the SEC have brought the highest number of enforcement actions and court cases, which is in line with the previous studies on the comparative intensity of capital market enforcement.³⁴ Table 1 provides the data using the actions as units of analysis. Table 1.1 gives a more detailed look into multi-defendant actions by providing the number of defendants/respondents. In most multidefendant cases, either several affiliated entities were charged or the officers and directors of crypto-firms were charged together with the firms.

activities/45663186 [https://perma.cc/M79V-2DVQ]; HM Treasury & Home Office, *Criminals to Face Fresh Crackdown in Fight Against Dirty Money*, GOV.UK (July 12, 2019), <https://www.gov.uk/government/news/criminals-to-face-fresh-crackdown-in-fight-against-dirty-money> [https://perma.cc/2UV4-R95J].

34. See La Porta et al., *supra* note 10; Jackson & Roe, *supra* note 12

TABLE 1. Type of Action per Jurisdiction (By Action)

Countries/ Agency	Types of Action per Jurisdictions (actions as units of analysis)										
	Court	Enforcement Action	Warning/ Blacklisted	ICO Halted	Pending	Investigation	Registration Cancelled	Registration Refused	Trading Suspension		
SEC	25	25	...	...	...	...	...	...	16
CFTC	3	4	...	...	8	...	...	...	...
Australia	...	5	...	7	...	...	4	3	...
Canada	1	2	28	...	4	...	...	...	...
Cayman Islands	...	...	2	...	...	...	...	...	...
France	...	...	149	...	...	...	...	...	...
HK / China	...	...	14	1	...	...	...	...	...
Kenya	...	...	...	...	...	1	...	...	...
Luxembourg	...	...	3	...	...	...	...	...	...
Malta	...	...	12	...	...	...	...	...	...
Singapore	...	...	2	9	...	...	...	...	...
South Korea	...	...	...	...	...	7	...	...	...
Switzerland	...	2	34	...	...	1	...	...	...
UAE	...	...	3	...	...	...	...	...	...
United Kingdom	...	...	40	...	1	...	...	...	...
Grand Total	29	38	287	17	13	9	4	3	16		

TABLE 1.1. Type of Action per Jurisdiction (By Defendants/Respondents)

Countries/ Agency	Types of Action per Jurisdictions (defendants/respondents as units of analysis)										
	Court	Enforcement Action	Warning/ Blacklisted	ICO Halted	Pending	Investigation	Registration Cancelled	Registration Refused	Trading Suspension		
SEC	73	45	...	...	...	...	...	...	22
CFTC	6	9	...	...	24	...	...	...	...
Australia	...	5	...	7	...	...	4	3	...
Canada	1	2	29	...	4	...	...	...	...
Cayman Islands	...	...	2	...	...	...	...	...	...
France	...	...	153	...	...	...	...	...	...
HK / China	...	...	14	1	...	...	...	...	...
Kenya	...	...	...	...	...	1	...	...	...
Luxembourg	...	...	3	...	...	...	...	...	...
Malta	...	...	17	...	...	...	...	...	...
Singapore	...	...	2	9	...	...	...	...	...
South Korea	...	...	...	...	...	7	...	...	...
Switzerland	...	5	34	...	...	1	...	...	...
UAE	...	...	3	...	...	...	...	...	...
United Kingdom	...	...	50	...	1	...	...	...	...
Grand Total	80	66	307	17	29	9	4	3	22		

Tables 2 and 2.1 track all enforcement actions by year and demonstrate that the peak of SEC enforcement was in 2018–2019, which mainly represented ICO-related cases.³⁵ By contrast, the number of CFTC actions increased sharply in 2019–2020.

France seems to stand apart. However, cross-checking of the data in Tables 1 and 1.1 and Tables 2 and 2.1 demonstrates that France mainly issued warnings and backlisted certain entities. As discussed in more detail below, the U.S. agencies imposed substantial fines and brought more cases in court and in-house administrative proceedings.

35. ICOs acquired an unsavory reputation despite the validity of many ICO-funded projects. *See, e.g.,* SATIS GROUP, CRYPTOASSET MARKET COVERAGE INITIATION: NETWORK CREATION 25–26 (2018), https://research.bloomberg.com/pub/res/d28giW28tf6G7T_Wr77aU0gDgFQ [https://perma.cc/P6T6-VPQJ]; Dirk A. Zetzsche, Ross P. Buckley, Douglas W. Arner & Linus Föhr, *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).

TABLE 2. Actions by Year per Jurisdiction (By Action)

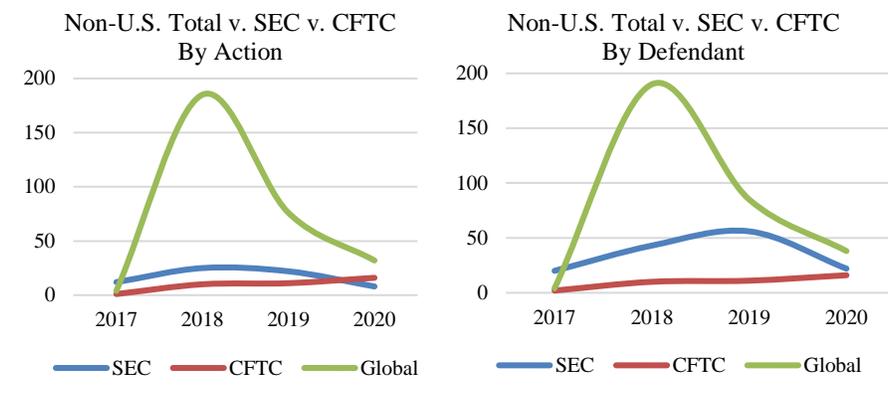
<i>Country/ Agency</i>	<i>Actions by Year per Jurisdiction (actions as units of analysis)</i>					<i>Grand Total</i>
	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>	<i>N/A</i>	
SEC	11	25	22	8	...	66
CFTC	1	5	5	4	...	15
Australia	...	7	11	1	...	19
Canada	1	11	14	9	...	35
France	1	117	22	9	...	149
HK / China	...	15	...	...	...	15
Kenya	...	...	1	...	...	1
Luxembourg	...	1	2	...	...	3
Malta	1	3	8	...	...	12
Singapore	...	10	1	...	...	11
South Korea	...	7	...	...	...	7
Switzerland	...	1	...	1	35	37
UAE	...	...	...	...	3	3
United Kingdom	1	14	14	12	...	41
Cayman Islands	...	...	2	...	...	2
Grand Total	16	216	102	44	38	416

TABLE 2.1. Actions by Year per Jurisdiction (By Defendants/Respondents)

<i>Country/ Agency</i>	<i>Actions by Year per Jurisdiction (defendants/respondents as units of analysis)</i>					<i>Grand Total</i>
	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>	<i>N/A</i>	
SEC	19	43	56	22	...	140
CFTC	2	10	11	16	...	39
Australia	...	7	11	1	...	19
Canada	1	12	14	9	...	36
France	1	117	22	13	...	153
HK / China	...	15	...	...	...	15
Kenya	...	...	1	...	...	1
Luxembourg	...	1	2	...	...	3
Malta	1	3	13	...	...	17
Singapore	...	10	1	...	...	11
South Korea	...	7	...	...	...	7
Switzerland	...	1	...	1	38	40
UAE	...	...	...	...	3	3
United Kingdom	1	18	18	14	...	51
Cayman Islands	...	...	2	...	...	2
Grand Total	25	244	151	76	41	537

Figure 1 illustrates that most enforcement actions across the world, including light-touch warnings, clustered around 2018 and have subsided since. 2018 was a very active year for regulators. The only rising trend line in the first months of 2020 denotes CFTC enforcement.

FIGURE 1. Total Actions by Year

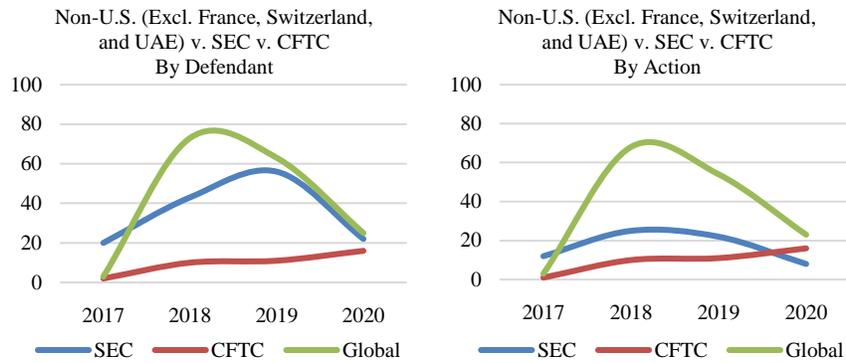


We have identified two issues that may have disproportionately affected the global trend line in Figure 1. First, Switzerland and the UAE did not provide the dates when various entities were added to their warning lists. This omission may have distorted the 2018–2019 data. Second, France’s warnings list skews the trend line toward 2018 because AMF released a large set of warnings in 2018.³⁶ Because we could not be entirely sure if our data on these three jurisdictions were properly assigned to the corresponding years, Figure 2 presents the global trend lines without the enforcement data from France, Switzerland, and the UAE.

Figure 2 demonstrates that the global actions were falling at a steeper rate than the number of SEC actions, whereas CFTC actions were slowly rising. Together, the SEC and the CFTC exhibited strong enforcement activity as of April 30, 2020. Only the CFTC, however, demonstrated increasing enforcement intensity. This may be explained by the fact that SEC enforcement in 2017–2019 was already strong. If SEC enforcement is the baseline, the CFTC, which is the smaller agency of the two, is “catching up.”

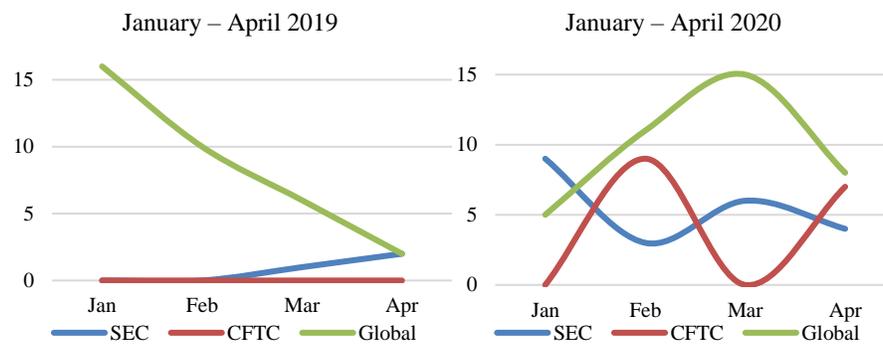
36. France’s AMF has a search function that allows a user to search for only crypto-related information, which produced more relevant results for France.

FIGURE 2. Total Actions by Year (Excl. France, Switzerland, and UAE)



Our dataset covers enforcement actions between 2017 and the end of April 2020. It is hard to make predictions as to the future enforcement activity or compare annual trends. The Covid-19 epidemic has been an important exogenous shock that possibly affected enforcement. In an attempt to draw parallels and find enforcement patterns, we provide comparisons of the following time periods: January through April 2019 and January through April 2020. The trend lines in Figure 3 suggest that the CFTC had a slow start in commencing enforcement actions but has demonstrated more activity in 2020. The global and SEC data illustrate a slowdown or a lull in enforcement.

FIGURE 3. Parallel Trends in the First Quarter of 2019 and of 2020



IV. THE SECURITIES & EXCHANGE COMMISSION

This Part demonstrates that the SEC has positioned itself as an exceptionally active enforcer in the digital-asset market. Its actions span the complete spectrum of crypto-market participants: from issuers and individuals to various gatekeepers.³⁷ In crypto-enforcement the Commission relies on a mixture of principles-based doctrines, such as the investment contract definition, and on prescriptive rules on capital market institutions, registration rules, and exemptions.

The SEC has been relying on the pre-crypto regulations in its digital-asset enforcement actions. In mid-2017, it published the first pronouncement on cryptoassets in the form of a section 21(a) report of investigation, commonly known as “the DAO Report.”³⁸ A slew of enforcement actions ensued.³⁹ The cases were large and small, with several actions against issuers in multimillion-dollar international offerings.⁴⁰

In enforcing pre-crypto securities law against crypto-firms, the SEC relies on the broad interpretation of the definition of “security” as reflected in the Supreme Court *Howey* test.⁴¹ The Commission has explained the application of the 1946 *Howey* case to cryptoassets in more recently developed guidelines, such as the 2019 *Framework for “Investment Contract” Analysis of Digital Assets*.⁴² Venues trading crypto-securities and institutions offering securities advice and related services, including ratings, are also within the SEC’s bailiwick.⁴³

37. This Part elaborates on the results reported and examined in Guseva, *Game Theory*, *supra* note 3. The dataset in Guseva, *Game Theory*, covers the period from mid-July 2017 through December 31, 2020.

38. REPORT OF INVESTIGATION PURSUANT TO SECTION 21(A) OF THE SECURITIES EXCHANGE ACT OF 1934: THE DAO, EXCHANGE ACT RELEASE NO. 81,207, 2017 SEC LEXIS 2194 (July 25, 2017).

39. For a review of crypto-enforcement actions, see, for example, Guseva, *Game Theory*, *supra* note 3.

40. *E.g.*, SEC v. Telegram Grp. Inc., No. 19-cv-9439, 2020 U.S. Dist. LEXIS 53846 (S.D.N.Y. Mar. 24, 2020); Complaint, SEC v. KIK Interactive Inc., No. 19 Civ. 5244, 2020 U.S. Dist. LEXIS 181087 (S.D.N.Y. Sept. 30, 2020).

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

42. THE STRATEGIC HUB FOR INNOVATION & FIN. TECH., U.S. SEC. & EXCH. COMM’N, FRAMEWORK FOR “INVESTMENT CONTRACT” ANALYSIS OF DIGITAL ASSETS (2019), <https://www.sec.gov/files/dlt-framework.pdf> [<https://perma.cc/EBE9-PDEW>] [hereinafter THE FRAMEWORK].

43. *See, e.g.*, DIV. OF CORP. FIN., DIV. OF INV. MGMT. & DIV. OF TRADING & MKTS., U.S. SEC. & EXCH. COMM., STATEMENT ON DIGITAL ASSET SECURITIES ISSUANCE AND TRADING (2018), <https://www.sec.gov/news/public-statement/digital-asset-securites-issuance-and-trading> [<https://perma.cc/SK73-9UY5>]; ICO Rating, Exchange Act Release No. 10,673, 2019 SEC LEXIS 2134 (Aug. 20, 2019). As this Article was going to print, the SEC issued a new Risk Alert for securities exchanges, investment advisers, broker-dealers, and transfer agents. *The Division of Examinations’ Continued Focus on Digital Asset Securities*, SEC DIVISION OF EXAMINATIONS: RISK ALERT (Feb. 26, 2021),

Table 3 outlines the results. First, the SEC initiated more crypto-related cases in federal district courts than in administrative actions. Charges for the violations of the antifraud provisions of the securities statutes⁴⁴ were more often brought in courts than in “in-house” administrative proceedings⁴⁵

Second, an important distinctive feature of crypto-enforcement is that the SEC often brings cases not only against entities operating in the cryptoasset markets but also against the individuals behind these firms, including directors, officers, and founders. The figures in parentheses in Table 3 indicate the number of insiders charged in administrative and court cases.

TABLE 3. SEC Cases: Federal Courts and Administrative Proceedings

<i>Violations</i>	<i>Administrative Proceedings</i>	<i>Complaints Filed in Federal Courts</i>
Standalone Antifraud Cases (§10(b), SEA; Rule 10b-5; §17, SA)	5 (1)	2 (2)
Cases Combining Fraud and Other Violations	3 (3)	22 (19)
Standalone Registration Violations (§5, SA)	10	2
Securities and Exchange Acts Registration Violations (§5, SA; §5 SEA, §15 SEA)	4 (2)	3 (2)
Total	22 (6)	29 (23)

Note: “SA” stands for the Securities Act of 1933; “SEA” stands for the Securities Exchange Act of 1934.

<https://www.sec.gov/files/digital-assets-risk-alert.pdf> [https://perma.cc/E24K-S8G3].

44. 15 U.S.C. §§ 77q, 78j; 17 C.F.R. § 240.10b-5.

45. The dataset also includes registration violations involving mainly 15 U.S.C. §§ 77e, 78e & 78o.

The penalties and disgorgement sought by the SEC were considerable, with the higher amounts received in the cases filed in federal district courts.⁴⁶

TABLE 4. Penalties and Disgorgement in SEC Cases

<i>Total Fines, Disgorgement and Prejudgment Interest</i>	<i>Administrative Proceedings</i>	<i>District Court Cases</i>	<i>Total</i>
2017	. . .	\$6,911,613	\$6,911,613
2018	\$2,504,430	\$4,470,975	\$6,975,405
2019	\$24,910,552	\$1,314,348,527	\$1,339,259,078
2020	\$830,449	\$0	\$830,449
Grand Total	\$28,245,431	\$1,325,731,114	\$1,353,976,545

These sums are skewed because of the \$1,224,000,000 disgorgement and the \$18,500,000 civil penalty against Telegram.⁴⁷ However, even without this case, the total civil penalties and disgorgement of ill-gotten gains obtained in court were almost three times higher than those in administrative proceedings.

This finding is consistent with previous research on SEC enforcement. For example, Choi and Pritchard find that “administrative proceedings following Dodd-Frank tended to be weaker (*i.e.*, less likely to prevail) and less salient (*i.e.*, less likely to garner media attention).”⁴⁸ The difference in our dataset is that, except for the 15 cases that were pending as of the time of this writing, the Commission was successful in all cases regardless of the venues, *i.e.*, it is impossible to conclude that the administrative cases were markedly “weaker” than the court cases. At the same time, in-house enforcement did involve lower amounts of fines and disgorgement paid by the respondents.

The businesses of the defendants and respondents varied. Following the ICO boom of 2017–2018, the majority of the cases in our dataset concerned ICO issuers. Many enforcement actions against digital-asset issuers and their

⁴⁶ For additional analysis of the total penalties and disgorgement based on the violations, the types of defendants and respondents, as well as their domiciles, see Guseva, *Game Theory*, *supra* note 3 (Tables 1 & 3).

⁴⁷ *Telegram to Return \$1.2 Billion to Investors and Pay \$18.5 Million Penalty to Settle SEC Charges*, U.S. SEC. & EXCHANGE COMMISSION (June 26, 2020), <https://www.sec.gov/news/press-release/2020-146> [<https://perma.cc/NBY6-93W3>].

⁴⁸ Choi & Pritchard, *supra* note 8, at 4.

insiders focused on failure to either register securities under Securities Act Section 5⁴⁹ or comply with an exemption from registration. The majority of charges, however, also involved violations of the antifraud provisions of the Exchange Act and the Securities Act, that is, Sections 10(b) and Rule 10b-5 and Section 17, respectively.⁵⁰

The SEC also paid close attention to the crypto-market infrastructure and its gatekeepers.⁵¹ One notable target was broker-dealers which were not registered with the SEC and/or violated other regulations, including investment suitability requirements under federal and state law.⁵² There were three cases against online trading platforms commonly known as “crypto-exchanges” and/or their insiders. While one case involved a simple violation of the exchange registration requirements of the Securities Exchange Act,⁵³ in the other two instances, the SEC also charged the crypto-exchanges with fraud under the Securities Exchange Act⁵⁴ and the Securities Act,⁵⁵ as well as violations of the registrations provisions of the Securities Act.⁵⁶

As many as six cases were filed against various investment funds issuing securities related to crypto-investments and/or their insiders. In five cases,⁵⁷ the charges were serious and concerned violations of the antifraud provisions of the Securities Act and Securities Exchange Act,⁵⁸ as well as

49. 15 U.S.C. § 77e.

50. 15 U.S.C. §§ 77q, 78j; 17 C.F.R. § 240.10b-5. For additional data, see Guseva, *Game Theory*, *supra* note 3 (Tables 1 & 3).

51. See, e.g., Guseva, *Game Theory*, *supra* note 3 (Tables 1 & 2). For a discussion on the role of gatekeepers, see Elisabeth de Fontenay, *Private Equity Firms as Gatekeepers*, 33 REV. BANKING & FIN. L. 115, 136 (2013) (citing Reinier H. Kraakman, *Gatekeepers: The Anatomy of a Third-Party Enforcement Strategy*, 2 J.L. ECON. & ORG. 53, 54 (1986)); John C. Coffee, Jr., *Gatekeeper Failure and Reform: The Challenge of Fashioning Relevant Reforms*, 84 B.U. L. REV. 301, 308–12 (2004) (outlining the types of gatekeepers).

52. See, e.g., Levine, Exchange Act Release No. 86,962, SEC LEXIS 2793 (Sept. 13, 2019); TokenLot, LLC, Securities Act Release No. 10,543, 2018 SEC LEXIS 2240 (Sept. 11, 2018); Maxwell, Investment Advisers Act Release No. 5,211, 2019 SEC LEXIS 610 (Mar. 25, 2019); 1Pool Ltd., Litigation Release No. 24,330, 2018 SEC LEXIS 3046 (Nov. 1, 2018); XBT Corp. SARL, Securities Act Release No. 10,723, 2019 SEC LEXIS 4307 (Oct. 31, 2019); Complaint, SEC v. Willner, No. 17-cv-6305 (E.D.N.Y. Oct. 30, 2017).

53. 15 U.S.C. 78(e); see also Coburn, Exchange Act Release No. 84,553, 2018 SEC LEXIS 3131 (Nov. 8, 2018) (Coburn is the founder of EtherDelta).

54. 15 U.S.C. § 78j; 17 C.F.R. § 240.10b-5.

55. 15 U.S.C. § 77q.

56. 15 U.S.C. § 77e; see Complaint, SEC v. Montroll, No. 18-cv-1582 (S.D.N.Y. Feb. 21, 2018); Complaint, SEC v. Bitqyck, Inc., No. 19-cv-02059 (N.D. Tex. Aug. 29, 2019).

57. Crypto Asset Mgmt., LP, Securities Act Release No. 10,544, 2018 SEC LEXIS 2241 (Sept. 11, 2018); NextBlock Glob. Ltd., Securities Act Release No. 10,638, 2019 SEC LEXIS 1107 (May 14, 2019); Mutual Coin Fund LLC, Securities Act Release No. 10,624, 2019 SEC LEXIS 682 (Apr. 1, 2019); Complaint, SEC v. Smith, No. 19-cv-17213 (D. N.J. Aug. 27, 2019); Complaint, SEC v. Ackerman, No. 20-cv-01181 (S.D.N.Y. Feb. 11, 2020).

58. 15 U.S.C. §§ 77q, 78j; 17 C.F.R. § 240.10b-5.

the Investment Advisers Act.⁵⁹ Only one out of the six cases did not involve fraud and was brought for violation of the registration provisions of the Securities Act.⁶⁰

Finally, the SEC has also been active in bringing actions against individual celebrities for promoting ICOs without disclosing that they were compensated for their efforts in violation of Section 17 of the Securities Act. In 2018, DJ Khaled and Floyd Mayweather were promoters for Centra Tech, Inc., which led to the SEC imposing fines and disgorgements as shown below. In 2020, the SEC charged actor Steven Seagal with unlawfully touting a digital-asset offering. These charges came after the SEC's statement on celebrity-backed ICOs, which had warned the investing public of celebrities and others using social media to encourage the public to purchase stocks and other investments in violation of the Securities Act.⁶¹

TABLE 5. SEC Cases Against Celebrities

<i>Celebrity</i>	<i>Fine / Penalties</i>	<i>Disgorgement</i>	<i>Other, Prejudgment Interest</i>
DJ Khaled	\$100,000	\$50,000	\$2,725.72
Floyd Mayweather	\$300,000	\$300,000	\$14,775.67
Steven Seagal	\$157,000	\$157,000	\$16,448.76
Grand Total	\$557,000	\$507,000	\$33,950

An important, and the second largest, category of actions targeted crypto-related firms. We classified firms as “crypto-related” when they either invested in crypto-assets, were involved in crypto-based schemes without engaging in ICOs, or made public statements about changing their business models to crypto, engaging in crypto-markets, or conducting ICOs. Many of those firms were smaller reporting issuers. As words such as “blockchain” and “DLT” became highly appealing to investors in 2017–

59. 15 U.S.C. § 80b-6.

60. CoinAlpha Advisors LLC, Securities Act Release No. 10,582, 2018 SEC LEXIS 3429 (Dec. 7, 2018).

61. SEC Statement Urging Caution Around Celebrity Backed ICOs, U.S. SEC. & EXCHANGE COMMISSION, (Nov. 1, 2017), <https://www.sec.gov/news/public-statement/statement-potentially-unlawful-promotion-icos> [<https://perma.cc/4VMH-4JLS>].

2018,⁶² some firms rushed to take advantage of that appeal. The SEC suspended trading in the securities of several of such firms and in one case revoked the registration of the issuer's securities.⁶³ We also identified three crypto-related firms that were involved in Ponzi schemes and/or acquired blockchain entities.⁶⁴

V. THE COMMODITY FUTURES TRADING COMMISSION

As an independent U.S. government agency, the CFTC⁶⁵ regulates the commodity futures and options markets, as well as crypto-financial instruments that are commodities.⁶⁶ In written testimony, CFTC Chairman J. Christopher Giancarlo noted, for instance, that “the CFTC does have both regulatory and enforcement jurisdiction under the [Commodity Exchange

62. See, e.g., Lisa Pham, *This Company Added the Word 'Blockchain' to Its Name and Saw Its Shares Surge 394%*, BLOOMBERG (Oct. 27, 2017, 5:29 AM), <https://www.bloomberg.com/news/articles/2017-10-27/what-s-in-a-name-u-k-stock-surges-394-on-blockchain-rebrand> [<https://perma.cc/9V84-LJ6M>].

63. See 15 U.S.C. §781(j)-(k); Exchange Act Release No. 81,639 (Sept. 18, 2017), <https://www.sec.gov/litigation/suspensions/2017/34-81639.pdf> [<https://perma.cc/2U2D-XNPF>]; Exchange Act Release No. 81,481 (Aug. 24, 2017), <https://www.sec.gov/litigation/suspensions/2017/34-81481.pdf> [<https://perma.cc/68T4-9RWB>]; Exchange Act Release No. 81,474 (Aug. 23, 2017), <https://www.sec.gov/litigation/suspensions/2017/34-81474.pdf> [<https://perma.cc/G4HA-NBQ8>]; Exchange Act Release No. 81,367 (Aug. 9, 2017), <https://www.sec.gov/litigation/suspensions/2017/34-81367.pdf> [<https://perma.cc/S7TE-VUAV>]; Strategic Global Investments, Inc., Exchange Act Release No. 81,314 (Aug. 3, 2017), <https://www.sec.gov/litigation/suspensions/2017/34-81314-o.pdf> [<https://perma.cc/DRY5-L2A5>]; Blockchain Solutions, Inc., Exchange Act Release No. 87,242 (Oct. 7, 2019), <https://www.sec.gov/litigation/admin/2019/34-87242.pdf> [<https://perma.cc/J3KA-4C4Q>]; Exchange Act Release No. 83,518 (June 25, 2018), <https://www.sec.gov/litigation/suspensions/2018/34-83518.pdf> [<https://perma.cc/ZJ85-GZQT>]; HD View 360 Inc., Exchange Act Release No. 82,800 (Mar. 1, 2018), <https://www.sec.gov/litigation/suspensions/2018/34-82800-o.pdf> [<https://perma.cc/7GJZ-VW39>]; PDX Partners, Inc., Exchange Act Release No. 82,725 (Feb. 15, 2018), <https://www.sec.gov/litigation/suspensions/2018/34-82725-o.pdf> [<https://perma.cc/8ABG-VKXL>]; Exchange Act Release Nos. 82,724; 82,725; 82,726 (Feb. 15, 2018), <https://www.sec.gov/litigation/suspensions/2018/34-82724.pdf> [<https://perma.cc/C597-E78W>]; Exchange Act Release No. 80,435 (Apr. 11, 2017), <https://www.sec.gov/litigation/suspensions/2017/34-80435.pdf> [<https://perma.cc/DP7Y-ABPL>]; Exchange Act Release No. 82,452 (Jan. 5, 2018), <https://www.sec.gov/litigation/suspensions/2018/34-82452.pdf> [<https://perma.cc/CBQ9-NKQS>]; Victura Construction Group, Inc., Exchange Act Release No. 82,726 (Feb. 15, 2018), <https://www.sec.gov/litigation/suspensions/2018/34-82726-o.pdf> [<https://perma.cc/VUR8-DU9J>].

64. Longfin Corp., Litigation Release No. 24,492, 2019 SEC LEXIS 1296 (June 5, 2019); Complaint, SEC v. Natural Diamonds Inv. Co., 2020 U.S. Dist. LEXIS 184231 (S.D. Fla. 2020) (No. 19-80633); Complaint, SEC v. Dalius, No. 18-cv-08497 (C.D. Cal. Oct. 3, 2018).

65. COMMODITY FUTURES TRADING COMMISSION, <https://www.cftc.gov> [<https://perma.cc/4SGV-QLT8>].

66. See, e.g., *CFTC Jurisdiction Over Cryptocurrency – Implications for Industry Participants*, WHITE & CASE (Nov. 11, 2019), <https://www.whitecase.com/publications/alert/cftc-jurisdiction-over-cryptocurrency-implications-industry> [<https://perma.cc/B763-NQ3V>]; IN CASE YOU MISSED IT: Chairman Tarbert Comments on Cryptocurrency Regulation at Yahoo! Finance All Markets Summit, COMMODITY FUTURES TRADING COMMISSION (Oct. 10, 2019), <https://www.cftc.gov/PressRoom/PressReleases/8051-19> [<https://perma.cc/BW8Z-B5TC>]; CFTC v. My Big Coin Pay, Inc., 334 F. Supp. 3d 492, 498 (D. Mass. 2018) (citing CFTC v. McDonnell, 287 F. Supp. 3d 213, 228 (E.D.N.Y. 2018)).

Act (“CEA”)]⁶⁷ over derivatives on virtual currencies traded in the United States.”⁶⁸ The CFTC and its staff have made numerous statements on crypto. The CFTC has also issued a final interpretive guideline on actual delivery of digital assets “colloquially known as ‘virtual currencies.’”⁶⁹ There is, however, no separate regulation on crypto at the moment.

Figures 1 through 3 demonstrate⁷⁰ a notable upward trend in CFTC crypto-related actions: the number of actions has been steadily rising since 2019. It is possible that this increased activity is related to the general changes in the enforcement strategies of the CFTC. Namely, on May 20, 2020, for the first time since 1994, the CFTC Division of Enforcement issued a new Civil Monetary Penalty Guidance.⁷¹

The Guidance renews the CFTC’s “strong commitment to transparency and to the CFTC’s enforcement mission.”⁷² It also explicates the CFTC’s “three pronged approach” focusing on “(1) the ‘gravity of the violation’; (2) ‘mitigating and aggravating circumstances’; and (3) ‘other considerations.’”⁷³ There is a clear temporal association between the rise of crypto-related actions, the Guidance, and a record number of total enforcement actions brought by the CFTC in 2020.⁷⁴

In crypto-enforcement in our sample, the CFTC relied on its authority

67. 7 U.S.C. § 1 et seq. (2018).

68. Written Testimony of Chairman J. Giancarlo Before the Senate Banking Committee, Washington, D.C., COMMODITY FUTURES TRADING COMMISSION (Feb. 6, 2018), <https://www.cftc.gov/PressRoom/SpeechesTestimony/opagiancarlo37> [<https://perma.cc/99UQ-EMT6>]; see also COMMODITY FUTURES TRADING COMM’N, BACKGROUNDER ON OVERSIGHT OF AND APPROACH TO VIRTUAL CURRENCY FUTURES MARKETS (2018), https://www.cftc.gov/sites/default/files/idc/groups/public/@newsroom/documents/file/backgrounder_virtualcurrency01.pdf [<https://perma.cc/JF9C-SUJK>] (detailing the CFTC’s authority regarding “federal oversight of and jurisdiction over virtual currencies”).

69. *CFTC Issues Final Interpretive Guidance on Actual Delivery for Digital Assets*, COMMODITY FUTURES TRADING COMMISSION (Mar. 24, 2020), <https://www.cftc.gov/PressRoom/PressReleases/8139-20> [<https://perma.cc/2HK7-5V2Q>]. The release should assist crypto-market participants to better understand the regulations on the delivery of digital assets. See, e.g., Andrew Cross, Kari Larsen, Conor O’Hanlon & Michael Selig, *CFTC Finalizes Guidance on Digital Assets in the Context of the Retail Commodity Transactions*, JDSUPRA (May 1, 2020), <https://www.jdsupra.com/legalnews/cftc-finalizes-guidance-on-digital-90663> [<https://perma.cc/H5H5-8ETM>] (“[T]he Guidance provides small accommodations that make it operationally possible for businesses to test the waters with margined purchases of virtual currency, while clarifying in no uncertain terms that these businesses are still not permitted to offer margin trading to retail customers more broadly off of a CFTC-registered exchange.”).

70. See *supra* Figures 1–3.

71. *CFTC Division of Enforcement Issues Civil Monetary Penalty Guidance*, COMMODITY FUTURES TRADING COMMISSION (May 20, 2020), <https://www.cftc.gov/PressRoom/PressReleases/8165-20> [<https://perma.cc/32K2-K35Q>].

72. *Id.*

73. *Id.*

74. *CFTC Division of Enforcement Issues Annual Report*, COMMODITY FUTURES TRADING COMMISSION (Dec. 1, 2020), <https://www.cftc.gov/PressRoom/PressReleases/8323-20> [<https://perma.cc/85AZ-83BC>].

under the CEA and the CFTC regulations.⁷⁵ The three main provisions that the CFTC has cited in its cases against crypto-entities were §6c(a), §9(1), and Rule 180.1.⁷⁶ We have reviewed all available data on CFTC enforcement from mid-2017 through April 2020.⁷⁷ Many actions were brought for violations of the fraud and misappropriation of client funds provisions of the regulations.⁷⁸

In terms of the penalties, the CFTC's standard toolbox consists of injunctions along with monetary penalties and disgorgement.⁷⁹ In all of the cases within the research timeframe, the CFTC requested permanent injunctions against defendants, restitution, and civil penalties. The largest penalty assessed against a crypto-firm was \$2.5 million. All of the cases were brought in court except for one settlement that resulted from a consent judgment with Joseph Kim. Kim settled for \$1,146,000 for having "misappropriated approximately 980 Litecoins and 339 Bitcoins from his employer to cover personal trading losses in his own personal virtual currency trading accounts."⁸⁰ The defendants' businesses mainly were cryptocurrency trading services and commodity pool operators, as well as an ICO issuer promising access to a proprietary exchange trading algorithm.

VI. THE SEC AND THE CFTC: A SIDE-BY-SIDE COMPARISON

The following Figures compare the enforcement actions of the SEC and the CFTC, as well as the total penalties (mainly including fines, disgorgement, and prejudgment interest), sought by the two Commissions. The comparison reveals important differences. The SEC penalties were much more significant, with disgorgement being noticeably higher.

The numbers can be interpreted in several ways to explain the differences in enforcement intensity. First, there may be more securities law violations associated with digital-asset securities (such as, for example, tokens issued via unregistered ICOs) than violations of the CEA involving virtual currencies within the jurisdiction of the CFTC. Second, the SEC may be extending its authority over some virtual-currency-commodities by relying on the broad principles of the *Howey* test.

75. 17 CFR § 1.2 et seq. (2020).

76. 7 U.S.C. §§ 6c, 9; 17 CFR § 180.1 (2020).

77. Our data collection followed the guidelines in Part II, *supra*.

78. *See, e.g.*, CFTC v. Gelfman Blueprint, Inc., No. 17-7181, 2018 U.S. Dist. LEXIS 205706 (S.D.N.Y. Oct. 16, 2018); CFTC v. Saffron, No. 19-cv-01697, 2019 U.S. Dist. LEXIS 177312 (D. Nev. Oct. 3, 2019); CFTC v. Kantor, No. 18-cv-2247, 2019 U.S. Dist. LEXIS 221126 (E.D.N.Y. 2019).

79. *See, e.g.*, Order for Final Judgement, CFTC v. Gelfman Blueprint, Inc., No. 17-7181, 2018 U.S. Dist. LEXIS 205706 (S.D.N.Y. Oct. 16, 2018); Order and Default Judgment, CFTC v. Dean, No. 18-cv-00345, 2018 U.S. Dist. LEXIS 165861 (E.D.N.Y. July 9, 2018).

80. *In re* Joseph Kim, CFTC No. 19-02, 2018 CFTC LEXIS 23 (Oct. 29, 2018).

The third possible alternative is that the SEC, as a larger agency, traditionally has taken a more aggressive enforcement stance. If this third explanation is correct, then the enforcement numbers show the path-dependent behavior of the Commissions.

Finally, cryptocurrencies-commodities may be less amenable to fraud than digital-asset securities because virtual currencies, their circulation, trading, and operation are more transparent, decentralized, and overall “independent” of the original developers.⁸¹ We believe that these open questions call for further research.

In the cumulative data presented *supra* in Table 4, we included disgorgement as part of the total penalties.⁸² Here, Figures 4 and 5 separate out disgorgement, as a form of equitable relief, from penalties. We underscore this distinction in light of the Supreme Court decisions in *Kokesh* and *Liu*.⁸³ Counting disgorgement as a separate category also enables us to underscore that this form of relief is a “weapon of choice” of the SEC.

These Figures exclude the *Telegram* case that resulted in a \$1.224 billion disgorgement order.⁸⁴ The sheer magnitude of the settlement makes this case an outlier. Even without *Telegram*, the results illustrate the strong preference of the SEC for penal policies vis-à-vis that of the CFTC. All data are grouped based on the years when the respective actions were filed.

81. On the autonomous nature of cryptoassets, *see, e.g.*, Patrick Murck, *Who Controls the Blockchain?*, HARV. BUS. REV. (April 19, 2017), <https://hbr.org/2017/04/who-controls-the-blockchain> [<https://perma.cc/VL63-MG7P>]; Carla L. Reyes, *(Un)Corporate Crypto-Governance*, 88 FORDHAM L. REV. 1875 (2020); Carla L. Reyes, *If Rockefeller Were a Coder*, 87 GEO. WASH. L. REV. 373 (2019).

82. *Supra* Table 4.

83. *Kokesh v. SEC*, 137 S. Ct. 1635 (2017); *Liu v. SEC*, 140 S. Ct. 1936 (2020).

84. *Telegram to Return \$1.2 Billion to Investors*, *supra* note 47.

FIGURE 4. SEC v. CFTC Total

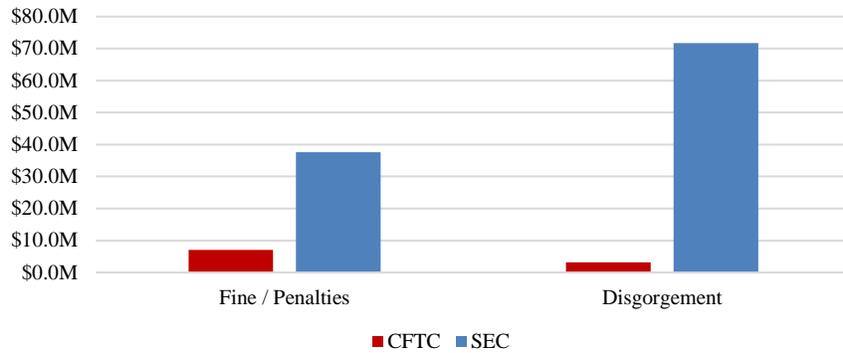
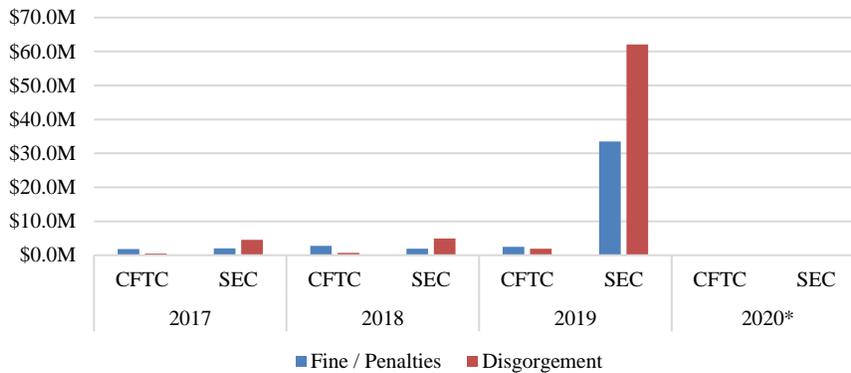


FIGURE 5. SEC v. CFTC, Annual Comparison



*Note: In our dataset for January-April 2020, the SEC had collected \$157,000 in fines and disgorgement, but no other data were available.

Another distinction is that, despite the recent rise in CFTC crypto-enforcement, the CFTC has brought fewer actions than the SEC. Table 6 compares the annual numbers of the actions for each Commission and highlights the different levels of enforcement intensity. The difference is particularly strong in terms of the number of individual defendants and respondents. The SEC’s grand total was 141, while the CFTC’s total was only 39.

TABLE 6. A Comparison of the Crypto-Related Actions: The CFTC and the SEC

<i>Country / Agency</i>	<i>Actions by Year per Jurisdiction (by count of defendant/respondent)</i>			
	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>
SEC	19	43	56	22
CFTC	2	10	11	16

CONCLUSION

Our data unequivocally demonstrate that the U.S. regulators, the SEC and the CFTC, have been singularly active in commencing enforcement actions against a variety of crypto-firms. The long-term effects of this enforcement activity on capital formation, financial innovation, and regulatory competition are not yet clear. It is, however, indisputable that the magnitude of U.S. enforcement may profoundly affect regulatory choices of foreign jurisdictions and corporate decisions of crypto-firms. Overall, our data and analysis call for more research on the impact of regulation by enforcement on crypto-capital and crypto-commodity markets.