

Department of Economics and Finance

Chair of Law and Economics (Business and Corporate Law; Antitrust and Regulation)

**PROSPECTIVE REGULATION OF DIGITAL  
ASSETS IN THE UNITED STATES**

Prof. Pierluigi Matera

---

SUPERVISOR

Marco Guglielmi

---

CANDIDATE

Academic Year 2021/2022

*Digital assets have rapidly grown in number and volume. New technologies have developed and have captured the attention of public investors.*

*An unhealthy environment has developed in the digital asset market, the lack of a clear regulatory framework is exacerbating this situation. This paper seeks to describe the technologies behind digital assets and then attempts to clarify the legal discussion on digital assets. Firstly, I will make an analysis of two SEC's interactions with digital assets. Secondly, I will evaluate the legal strategy that the SEC is adopting, regulation by enforcement. Thirdly, I will report the position that different U. S. States have taken in regards of digital assets.*

## Table of content

- I. Introduction
- II. Technological Background of Cryptocurrencies
  - a. What is distributed ledger technology?
  - b. What is blockchain technology?
  - c. What is cryptography
  - d. What is a crypto asset?
- III. Classification of Different Crypto Assets
  - a. Security or Commodity
- IV. The DAO investigation
  - a. What is the DAO
  - b. Legal Discussion
- V. The XRP Case
  - a. What is XRP
  - b. Legal Discussion
- VI. Congress Attempt to Regulate Crypto currencies
  - a. Cryptocurrency Act (Bill) 2020
  - b. Biden Order
- VII. Regulation by enforcement
  - a. Game Theory applied to the SEC vs Private issuers game
- VIII. Analysis on the interpretation by the Security and Exchange Commission on cryptocurrencies.
  - a. Howey For Digital Assets
    - i. Bahamas Test
    - ii. Substantial Two Step
- IX. State Law approach to regulate Cryptocurrencies
  - a. California
  - b. Delaware
  - c. Florida
  - d. Hawaii
  - e. Wyoming
  - f. New York
- X. Conclusion

## I. Introduction

In this paper I will start my discussion by meticulously describing the technological background of digital assets, in particular cryptocurrencies, and the innovations that these technologies may bring to society and to the capital market.

Different types of new technologies come into play for the development of cryptocurrencies. The latter are powered by the blockchain technology<sup>1</sup> an innovation in the technological world and in the financial markets. Blockchains are types of distributed ledgers<sup>2</sup> that use a decentralized network of nodes to autonomously power and automatically verify transactions. No one has an effective control over decentralized systems, and this is what makes blockchains admirable. The most popular cryptocurrency is Bitcoin that operates on the Bitcoin blockchain. For the creation of a new block some requisites must be met, and this leads us to the concept of mining. The innovative aspect that blockchains bring to the table is their extremely high difficulty to hack. A block in a chain doesn't contain only the code of that block, but also of the previous block and so does the one before it and so on, therefore in order to change one block an hacker must change every block in a blockchain and this is almost impossible due to the high number of blocks in blockchain.

In addition, a further technological element that is critical for the existence of cryptocurrencies is cryptography<sup>3</sup>. In theory cryptography is not a modern concept since it was already used in World War II, a famous cryptographic machine was Enigma. Germans used this machine to send encrypted messages to army officials. Nevertheless, the technology behind cryptography has evolved. Enigma used symmetrical cryptography therefore there existed a rule (algorithm) that a single or a group of letters corresponded to a code that would encrypt the message to make the message unreadable to anyone who got possession of it and only the recipient could decrypt the message since he knew the algorithm used to encrypt it. Instead in cryptocurrencies a development of cryptography is used, and it involves the use of a public and a private key. An agent can send a message/transaction to another agent by using

---

<sup>1</sup>Maryanne Murray, *Blockchain explained*, REUTERS GRAPHICS(June 15, 2018), <http://graphics.reuters.com/TECHNOLOGY-BLOCKCHAIN/010070P11GN/index.html>.

<sup>2</sup>Richard Brown, *Distributed Ledger Technology: beyond block chain*, UK GOVERNMENT OFFICE OF SCIENCE(2016),[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/492972/gs-16-1-distributed-ledgertechnology.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/492972/gs-16-1-distributed-ledgertechnology.pdf).

<sup>3</sup>Leonid Gringberg, *Introduction to Cryptography and RSA*, MIT OPENCOURSEWARE at 1 (spring 2011), [https://ocw.mit.edu/courses/electrical-engineering-and-computer-science/6-045j-automata-computability-and-complexity-spring-2011/lecture-notes/MIT6\\_045JS11\\_rsa.pdf](https://ocw.mit.edu/courses/electrical-engineering-and-computer-science/6-045j-automata-computability-and-complexity-spring-2011/lecture-notes/MIT6_045JS11_rsa.pdf)

the recipient's public key and that message will only be readable by using the recipient's private key therefore only he can open it.

Moreover, I will also investigate the diverse nature of these assets and the complications that may arise from such diversity<sup>4</sup>. A Digital asset is the broad set, and it contains many new technological systems that can be classified. In my study I will focus on Cryptocurrencies. The latter can be roughly divided into two main groups Coins and Tokens. Each group has many different variations, and it would be almost impossible to describe every single different cryptocurrency entity. For my study understanding the subtle difference between Coins and Tokens is of fundamental importance. Furthermore, I will tackle the issue of how such digital assets are classified and under what law they operate.

I will give a background on how the Securities and commodities Laws and Regulations have reacted and view digital assets<sup>5</sup>. There is a great hypocrisy around cryptocurrencies since Commissions have the intent to regulate them but fear that cryptocurrencies corporations if regulations become excessively tight will flee from America and incorporate on other soils and this would lead to a loss of control even if slight over the market of cryptocurrencies.

I will later discuss in the DAO investigation, the Security and Exchange Commission thoroughly analyzes the definition of investment contract to evaluate whether DAO Tokens could be classified as such and consequently be considered securities, following such investigation the Security and Exchange Commission reached the conclusion that DAO Tokens were securities and therefore must comply with U.S. Security Laws. Nevertheless, the DAO didn't register the offering to the Security and Exchange office and therefore under the Securities Exchange Act of 1934 those who participate in an unregistered offer and sale of securities not subject to a valid exemption are liable for violating Section 5. It therefore makes it unlawful to issue securities unless exemption if not registered following the U.S. registration. Nevertheless, as stated in the discussion: "The Commission has determined not to pursue an enforcement action in this matter based on the conduct and activities known to the Commission at this time."<sup>6</sup> Basically after evaluating that the DAO Token was a security even if it didn't comply with the registration the Commission decided not to pursue an enforcement action. As

---

<sup>4</sup>Etoro, *What is the difference Between Cryptocurrency Coins and Tokens*, ETORO, ( Dec. 15, 2020) ,[https://www.etoro.com/crypto/coins-vs-tokens/?gclid=Cj0KCQjw-LOEBhDCARIsABrC0TmvBjra-eCrsG0OrPXdk0aAqj\\_S-3GO6RGXMGJXbxXYU73bF0pLMVcaAq8vEALw\\_wcB](https://www.etoro.com/crypto/coins-vs-tokens/?gclid=Cj0KCQjw-LOEBhDCARIsABrC0TmvBjra-eCrsG0OrPXdk0aAqj_S-3GO6RGXMGJXbxXYU73bF0pLMVcaAq8vEALw_wcB).

<sup>5</sup>Jake Ryan, *Crypto Classification: Security vs. Commodity*, HACKERNOON(Aug. 2, 2018), <https://hackernoon.com/crypto-classification-security-vs-commodity-decf2d78c4a1>.

<sup>6</sup>U.S. Securities and Exchange Commission, *Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934: The DAO*, U.S. SECURITIES AND EXCHANGE COMMISSION AT 2, 3-8(Jul. 25, 2017),<https://www.sec.gov/litigation/investreport/34-81207.pdf>.

anticipated, I will analyze The DAO investigation to understand how the Security and Exchange Commission (SEC) evaluates an issue regarding a crypto token. I will start my analysis from initially describing what The DAO is, who are its founders, how DAO Tokens were promoted, its aim and how the founders of The DAO reacted to an attack to their funds. After studying the structure of DAO Tokens, I will deal with how the Security and Exchange Commission (SEC) tackles a cryptocurrency issue that didn't respect the registration requirements stated by the Section 21(a) of the Securities Exchange Act of 1934. It will start by determining what is a security and consequently state that every type of investment contracts are securities. The Commission will then quote the definition of an investment contract and evaluate if the DAO Token respects it to conclude whether to classify DAO Tokens as securities.

I will investigate a Cryptocurrency law case filed by Sec vs Ripple Labs Inc., I will tackle this case using the same structure adopted for the DAO investigation<sup>7</sup>. The presentation of this case will be fundamental for the analysis of how the SEC has been controversial, highly political on regulating the digital asset market. In the DAO case the SEC is evaluating whether to consider DAO Tokens as investment contracts to then classify them as Securities. After proving that DAO Tokens were securities it decided not to carry out an enforcement action since The DAO didn't comply with the registration requirements to sell or offer securities. Instead in the XRP case the SEC is trying to prove that XRP is an investment contract<sup>8</sup> to classify it as a security and consequently carry out an enforcement action against Ripple Labs Inc. It makes no sense since it is following the same procedural steps as the DAO investigation to then reach a controversial conclusion. Furthermore, the XRP ledger<sup>9</sup> has been launched on June 2012 and various exchange platforms have reached out to the SEC to understand whether they considered XRP a security and if it respected U.S. security laws, the SEC replied that it wasn't sure, and it was working on it<sup>10</sup>.

---

<sup>7</sup> U.S. Security and Exchange Commission, *SEC Charges Ripple and Two Executives with Conducting \$1.3 Billion Unregistered Securities Offering* (Dec. 22, 2020), U.S. SECURITY AND EXCHANGE COMMISSION, <https://www.sec.gov/news/press-release/2020-338>.

<sup>8</sup> Keith Lewis, *Ripple case seen as precedent for cryptocurrency regulation-SEC remained silent as the market for the digital coin developed*, ROLL CALL(May 4, 2021 7:00am), <https://www.rollcall.com/2021/05/04/ripple-case-seen-as-precedent-for-cryptocurrency-regulation/>.

<sup>9</sup> Dwyer, Gerald P., *The Economics of Bitcoin and Similar Private Digital Currencies* (July 8, 2014). Available at SSRN: <https://ssrn.com/abstract=2434628> or <http://dx.doi.org/10.2139/ssrn.2434628>

<sup>10</sup> Rick Steves, *Ripple Lawsuit Heats Up: SEC Takes Aim at Heart of Ripples's Legal Defence*, FINANCE FEEDS(Apr. 26, 2021 9:21am UTC), <https://financefeeds.com/ripple-lawsuit-heats-sec-takes-aim-heart-ripples-legal-defense/>.

There is without any doubt huge confusion on how to regulate the digital asset world and this has led to a contradictory approach by the major Commissions entitled to regulate such markets.

An intervention by congress would be necessary or some precise clarification must be made by the SEC, CFTC and all the other major Commissions entitled to regulate such market<sup>11</sup>. Some joint statements have been published but the effectiveness of the latter is limited. Federal intervention has been attempted with the Cryptocurrency Bill of 2020, never the less the content was vague, it merely listed under which agency jurisdiction should each different type of digital asset be classified but it didn't explain how to classify them and therefore many doubts rose and furthermore it was inappropriate to solve the legal issue on monitoring cryptocurrencies.<sup>12</sup> Recently the president of the United States issued an order for the implementation of various points regarding digital assets and the main focus of this order was to create a healthy environment for the assets to develop in . It included the introduction of a legal regulatory framework as also an urge to develop these new assets in the more sustainable way as possible since digital assets take up a large quantity of energy.

After analyzing the technologies behind digital assets, examples of legal interventions on digital assets, I will deeply evaluate the approach that the SEC is taking when attempting to regulate the digital assets market. The SEC is carrying out a regulation by enforcement policy that in my view is taking the industry in the right direction. In order for the latter policy to be implemented various conditions must hold. Firstly, that the regulatory requirements in place are adaptable to digital assets and secondly whether the tests use to categorize assets is enough elastic to be applied also to digital assets. I will firstly consider where the SEC's policy is likely to take the market, secondly whether the legal strategy that the SEC is adopting leads to the optimal result and finally I will analyse a different test, or better, an appendix to the existing tests such as the Howey test that could help regulators better classify digital assets.

I will then continue my study on how states regulated cryptocurrencies as being the main and (only) legal organs to have issued regulation frameworks or are preparing to implement them. It can be argued that many states merely faced the cryptocurrency issue by refraining or specifying how the Money Transmitting Laws (MTA) of each state applies to virtual currencies and whether the latter is regulated by the MTA. Hawaii and California have

---

<sup>11</sup> Laura Anthony, *The SEC, FinCEN and CFTC Issue A Joint Statement On Digital Assets*, LAW CAST CORPORATE FINANCE IN FOCUS (Nov. 05, 2019), <https://lawcast.com/2019/11/05/the-sec-fincen-and-cftc-issue-a-joint-statement-on-digital-assets/>

<sup>12</sup> H.R. 6154, 116th Congress (2020).

taken similar position on the subject they have created a working group to better understand how blockchain technologies work to then enact the best possible law to deal with such technologies in continuous evolution. Whereas Wyoming has taken a more rapid and impulsive approach to attract virtual currency businesses to its state.<sup>13</sup>

## II. Technological Background of Cryptocurrencies

To understand what a cryptocurrency is understanding of the different technologies that have led to such a creation. It is well known that a crypto currency is based on a blockchain technology, but my intent is to fully understand how this system works.

### a. What is a Distributed Ledger Technology.

It is important to state that a block chain is a particular type of distributed ledger. A distributed ledger is a database in which different type of assets can be stored and it is shared across a network of sites and any change in the inputs stored in the ledger will be reflected in all the copies of the ledger because this technology allows all participants to have an equal copy of the data base. The security of the information stored in the ledger is granted using cryptographic technology.<sup>14</sup>

### b. What is a blockchain.

A block chain is a database that is shared amongst a network of computers and once a record has been added to the chain it is very difficult to change. To safeguard the authenticity of the copies of the database the network makes constant checks. To create database records are bundled together into blocks and are added to the chain one after the other. An example of how a trade is recorded is that Mr. John sells ten of his coins to Mr. Jack, in the record there is the necessity of a digital signature from each party and the list of the details. The following step is that the record is then checked by the network, the computers in the latter called “nodes” check the details of the transaction to make sure that it is valid. Unlike traditional ledgers

---

<sup>13</sup> Matthew Kohen et al., *State Regulations on Virtual Currency and Blockchain Technologies (Updated March 2021)*, JDSUPRA (Apr. 19, 2021), <https://www.jdsupra.com/legalnews/state-regulations-on-virtual-currency-2160466/>.

<sup>14</sup>Brown, *supra* note 2

blockchain's database is a decentralized network so instead of having a centralized Hub in which the primary position is held by a central node in a decentralized network all the nodes can access the information and compete to be the next to add to the database. A decentralized network nevertheless can have some issues, the main issue is trust. A way to solve this problem might be to let in only people who you know but various block chains such as bitcoin they are open to anyone and there are no ways to know if they are trust worthy.<sup>15</sup> In order to solve this problem computers create tests for agents to join the block chain and an example is proof of work in order to add a block to the chain an agent must solve an extremely complicated computer puzzle in order to join the chain. In the case of bitcoin, we are talking about mining, and it gives you access to the block chain and create a block that awards you with 25 bitcoins. The following step is that after that a transaction is validated it is added to a block and Each block contains a unique code called a hash and a fundamental feature is that the new block has the hash of the previous block in the chain. Once that the transaction is added to the block the latter will be inserted into the block chain and the hash codes connect the blocks in a specific order. The creation and connection of the blocks in a block chain make it very difficult to change because once an hash code is created by a mathematical function that takes into account the digital information provided by the specific transaction it generates a string of numbers and letters so an attempt to modify an information in one of the blocks will lead to the automatic creation of a new hash but this will be rejected by the block chain because in this scenario there would be the necessity to change the hash of the following block because it still has the previous hash and this also with the next one and so on. Since the chains are extremely long hacking a block chain is extremely complicated.<sup>16</sup>

c. What is Cryptography.

A fundamental aspect of crypto currencies is their anonymous status due to the use of cryptography. The latter can be easily explained through a strait forward example. Lets think about the signals that the radio in our car gets they are open to everyone and therefore are not secret or crypto. Instead, a defense level communication must be secret and only the interested recipient can access that message. In an uncomplicated way cryptography is to send secure messages bet ween two or more parties. The sender encrypts the message using a key and an

---

<sup>15</sup> Jon Martindale, *What is a blockchain?*, DIGITAL TRENDS (last updated May 16, 2020), <https://www.digitaltrends.com/computing/what-is-a-blockchain/>.

<sup>16</sup>Murray, *supra* note 1



algorithm and the recipient will decrypt the message and it will be able to access the original message.<sup>17</sup> Encryption Keys are crucial for the understanding of how crypto transactions remain anonymous to the public. It is also important to state that anonymous doesn't mean that the other agents on the blockchain can't see the happening of the transaction the use of cryptography in cryptocurrencies is to keep the identity of the parties in transactions anonymous. There are various methods of Encryption. These methods can be narrowed down to two main techniques. The first one is Symmetric Encryption Cryptography it uses the same secret key to encrypt the raw message it transmits the encrypted message to the recipient and finally the message will be decrypted once it reaches the recipient. In this case the encryption follows an algorithm for example representing letters with numbers. The only way to decrypt the message is to know the algorithm. The second method is the Asymmetric Encryption Cryptography which uses two different key a public key and a private key. The public key is for example the address of the fund instead the private key is known only by the owner in this way an agent can send a message to a receiver's public key and only that person will be able to decrypt it using his private key. This method helps achieve the two important functions of authentication and encryption for cryptocurrency transactions. The former is achieved as the public key verifies the paired private key for the genuine sender of the message, while the later is accomplished as only the paired private key holder can successfully decrypt the encrypted message.<sup>18</sup>

d. What is a crypto asset.

To argue the reactions of the Security and Exchange commission and the Commodities Futures Trading Commission we need to highlight some key aspects that have led to difficulties in regulating the cryptocurrency market and such are the vast diversity in the cryptocurrency world. A main distinction can be made, there can be coins and tokens the difference is slight, but it is important to understand in order to grasp why the SEC and CFTC are struggling with regulating digital assets.<sup>19</sup>

Firstly, A cryptocurrency coin is one that is created in its very own blockchain. It is a cryptocurrency that can be used as a method of payment through transactions in its own blockchain. An example of a cryptocurrency coin is bitcoin of which it can be determined a

---

<sup>17</sup>Gringberg, *supra* note 3, at 2

<sup>18</sup> *Id.*

<sup>19</sup> Etoro, *supra* note 4

unit of value on its own ledger. There are different types of coins, bitcoin for example is limited in its quantity to 21 million and therefore its price is driven by market laws of supply and demand another example is lite coin which is considered the “digital silver” whereas bitcoin is considered as “digital Gold”. On the other hand, there are other types of coins for example XRP that are built to operate via their own block chain with a purpose. Ripple created XRP to create a more affordable and less time-consuming way to process cross-border payments and acting as a connection between fiat currencies and a unique form of liquidity. Crypto currencies coins have various purposes for example Bitcoin’s main objective is the store of value and offering an alternative to conventional banking and an abandonment of the need of a centralized ledger and has become a reliable source for storing value. Moreover, other coins such as Dash (previously Darkcoin) has the purpose to increase anonymity on its transactions. In conclusion despite the various types of cryptocurrencies coins the latter acts principally as a form of value.

20

Secondly, a crypto currency token is slightly different from a coin and the main difference is that a token generally has a functional use. A token can still act as a form of payment, but its objective is to be used in a blockchain and their function is to enable and boost user interaction and innovation within a network’s community<sup>21</sup>. Tokens can be distributed as a reward for joining an activity on the blockchain platform. The most common platform for cryptocurrency tokens is Ethereum, Ethereum tokens are called ERC20, and they have the function to enable the holder of the token to access and power decentralized applications such as games or on-demand services provided by the Ethereum blockchain network. There are other uses for tokens such as the powering of supercomputers for example Golem that is the first decentralized supercomputer, and it is powered by ERC20 (tokens that act on the Ethereum Blockchain).<sup>22</sup>

In addition, a clear distinction must be made between the two principal types of tokens. The first is a Utility token, the latter can be described as a token that will enable the agent to access a service provided by the creator of the token.<sup>23</sup> A practical example of how utility tokens are used in nowadays economy is for startups that are in the early stages of developing their products or services and want to create interest and attract demand using utility tokens. The second type of token is a security token that can be viewed as a crypto version of shares in

---

<sup>20</sup> Etoro, *supra* note 4

<sup>21</sup> *Id.*

<sup>22</sup> *Id.*

<sup>23</sup> *Id.*

a digital company. The value of a security token is influenced by the value attributed the asset to which the token is linked (very similar to shares). Following the creation of a cryptocurrency token the latter must be issued through an ICO initial coin offering it can be interpreted as very similar to an IPO initial public offering for a corporation when going public.<sup>24</sup>

### III. Classification of different Crypto Assets

Following the in-depth study of how cryptocurrencies come into existence and how they work a crucial discussion comes into play, whether cryptocurrencies or digital assets are regulated by Commodity Law or Security Law. To tackle this question, it is necessary to delineate the differences between a Commodity and a Security. A commodity is a good, property or asset that can be bought or sold on an exchange. They are typically raw materials or agricultural products. Commodities don't produce a return from a common enterprise. They are goods or property that get mined or grow, their value is intrinsic based on market supply and demand. On the other hand, to evaluate if an asset can be classified as a security a framework is used and it is called the Howey test. The latter refers to a court case between the SEC v. W.J. Howey Co. It consists of three questions: 1) Is an investment of money with the expectation of future profits? 2) Is the investment of money in a common enterprise? 3) Do any profits come from the efforts of a promoter or third party?<sup>25</sup> These questions in many cases are difficult to be answered since there is an enormous variety of cryptocurrencies with different functions. In most cases the expectation on future return is generated by the scarcity of supply and demand. In conclusion, it can be discussed that how a cryptocurrency comes into existence may play a key role in classifying it. If a crypto asset comes into existence via an initial coin offering or a token-generated event where the offering is a token for exchange for money, then it will probably be classified as a security and therefore it will have to follow security laws. On the other hand, if a cryptocurrency does not fall into this category, then it can be considered a commodity as Bitcoin and Ethereum have already been classified.<sup>26</sup>

Nevertheless, the task to classify digital assets continues to bring up issues that can't be dealt in a clear and direct manner. The technological set up of cryptocurrencies has led to a high density of money laundering due to the anonymity of the agents in a blockchain. On the

---

<sup>24</sup> Etoro, *supra* note 4

<sup>25</sup> Maume, Philipp and Fromberger, Mathias, *Regulation of Initial Coin Offerings: Reconciling US and EU Securities Laws* (June 15, 2018). CHICAGO JOURNAL OF INTERNATIONAL LAW, Vol. 19.2, at 16, 17-18 (2019), Available at SSRN: <https://ssrn.com/abstract=3200037> or <http://dx.doi.org/10.2139/ssrn.3200037>

<sup>26</sup> Anthony, *supra* note 11

11/10/2019 the leaders of the U.S. Commodity Futures Trading Commission, the Financial Crimes Enforcement Network, and the U.S. Securities and Exchange Commission have issued a joint statement to remember people involved in activities regarding digital assets their position on the question of money laundering and the application of the Bank Secrecy Act (BSA) also referred to as Anti-money Laundering (AML). I will discuss two extracts from the statement that are important for the understanding of the position that the major financial institutions take to categorize financial assets.<sup>27</sup>

“For the purpose of this joint statement, “digital assets” include instruments that may qualify under applicable U.S. laws as securities, commodities, and security- or commodity-based instruments such as futures or swaps. We are aware that market participants refer to digital assets using many different labels. The label or terminology used to describe a digital asset or a person engaging in or providing financial activities or services involving a digital asset, however, may not necessarily align with how that asset, activity or service is defined under the BSA, or under the laws and rules administered by the CFTC and the SEC..... As such, regardless of the label or terminology that market participants may use, or the level or type of technology employed, it is the facts and circumstances underlying an asset, activity or service, including its economic reality and use”<sup>28</sup>

In the first extract it is recognizable that the diversity of digital assets may lead to a distinct classification in order to evaluate which law a certain digital asset must comply with, furthermore it is stated that this classification may in many cases not be trivial and a interception between two different laws may occur. Moreover, in the second extract it is clearly stated a technique to classify the different types of digital assets in the setting of the use and the circumstances of that digital asset.<sup>29</sup>

In conclusion there is great confusion on how to classify digital assets and there is a lack of specificity when tackling the issue of classification.

---

<sup>27</sup> Anthony, *supra* note 11

<sup>28</sup> *Id.*

<sup>29</sup> Ryan, *supra* note 5

#### IV. The DAO Investigation

To fully understand how the major financial institutions, deal with digital asset issues I will examine a report that the Securities and Exchange Commission published on a Security Token.

On July 25, 2017, the Securities and Exchange Commission published a report on an investigation pursuant to section 21a) of the Securities Exchange Act: The Dao. The United States Securities and Exchange Commission has investigated whether The DAO an unincorporated organization and Slock.it (a German corporation) may have violated the federal securities laws. The SEC took the decision not to pursue an enforcement action based on the information gathered at that time. The main aim of the investigation was whether the DAO could be classified as a security and therefore the need for the application of federal security laws. At the end of the investigation the DAO token was considered a security under the Securities Act of 1933 and Securities Exchange Act of 1934. The commission considered this investigation opportune to remember all those who use DAO or other distributed ledger technologies such as blockchains to make sure to comply with all of the requirements set out by US federal securities laws. Every security offered must be appropriately registered with the commission unless the security qualifies for an exception for the registration requirements. This report highlights the fundamental principles of US securities laws and how these are applicable to new technology such as digital assets due to their flexible drafting and it stresses the obligation to comply with such requirements.<sup>30</sup>

##### a. What is the DAO

The idea of a DAO Entity is memorialized in a document (the “White Paper”), authored by Christoph Jentzsch, the Chief Technology Officer of Slock.it, a “Blockchain and IoT [(internet-of-things)] resolution company,” incorporated in Germany and co-founded by Christoph Jentzsch, Simon Jentzsch (Christoph Jentzsch’s brother), and Stephan Tual (“Tual”). The written report purports to explain “the 1st implementation of a [DAO Entity] code to change the structure of governance and set up a higher cognitive process.”<sup>31</sup>

---

<sup>30</sup>U.S. Security and Exchange Commission, *supra* note 6 at 3, 4-5

<sup>31</sup> Christoph Jentzsch, White Paper, slock.it(March 23, 2016), <https://download.slock.it/public/DAO/WhitePaper.pdf>.

The written report states that a DAO Entity “can be utilized by people collaborating outside of a conventional company form. In addition it can be utilized by a registered company entity to automate formal governance rules included in company bylaws or obligatory by law.”<sup>32</sup> The “White paper” presents and describes an entity—a DAO Entity—that would use smart contracts to aim to simplify or solve governance problems present in traditional corporations.<sup>33</sup> As delineate, a DAO Entity supposedly would substitute the existing of company governance and management with a blockchain in order to formalize and automate contracts through the use of blockchain software.<sup>34</sup>

The issuing of The DAO token was to collect funds to fund future projects. Christoph Jentzsch during an Ethereum meeting linked the financial aspect of The DAO tokens as to “buying shares in a company and getting ... dividends.”<sup>35</sup>

The DAO as being a cryptocurrency and using the Ethereum blockchain is structured via a decentralized ledger and it allows buyers to take part in the decision-making process when considering a particular project. The weight of an agent’s vote is directly proportional to it’s number of DAO tokens owned. Furthermore, project proposals were structured using smart contracts that it is a digital asset or vehicle that Ethereum blockchain offers.<sup>36</sup>

On April 29, 2016, Slock.it deployed The Dao code on the Ethereum blockchain. The code structures the way DAO functions. To promote the DAO Token, the founders of Slack.it introduced a link on their website to The DAO website. On the latter a message describing DAO’s purpose was exhibited: “To blaze a new path in business for the betterment of its members, existing simultaneously nowhere and everywhere and operating solely with the steadfast iron will of unstoppable code.” The DAO website further describes how the DAO token operates, it also included a link to buy DAO Tokens and it was also included a link to the White paper. Furthermore, in the DAO website a slack channel forum was created to promote daily discussions between 5,000 invited members on DAO issues. To strengthen consumer trust in acquiring DAO Tokens the DAO code was reviewed by one of the world’s

---

<sup>32</sup> *Id.*

<sup>33</sup> Maume, *supra* note 21, at 16, 18

<sup>34</sup> Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934: The DAO, Exchange Act Release No. 81,207, 2017 WL 7184670 (July 25, 2017). In this report, the SEC described an investigation of the DAO, a virtual organization, and its use of distributed ledger or blockchain technology to facilitate the offer and sale of DAO tokens to raise capital.

<sup>35</sup> *Id.*

<sup>36</sup> *Id.*

most important audit company. Slock.it's co-founders promoted The DAO Tokens were also using social media by posting almost daily updates on The DAO's status.<sup>37</sup>

On the 26th of April 2016 the offering started, it involved exchanges between DAO tokens and ETH the ratio was 1 up to 1.5 ETH, depending on the time during the offering period, for 100 DAO Tokens. DAO Token holders had voting rights over a series of decisions. When the founders of Slock.it and The DAO promoted rewards for the holders of DAO Tokens in the white paper it was clearly reported that following a profit from an investment then a voting would be held to decide what to do with the profits if to reinvest them in future projects or to redistribute them amongst DAO Token holders. There were no requirements or qualifications necessary for buying DAO Tokens and moreover there were also no limits for the quantity of DAO Tokens that one individual could buy. Investors' names would not be known publicly because the investments were made pseudonymously and the only "personal" details that could be known was the address of their Ethereum blockchain. An aspect that the founders of slock.it knew was crucial for the appeal of DAO Tokens was the possibility to sell them on secondary markets, initially the founders of slock.it directly asked a trading platform if it could exchange DAO Tokens but during and after the offering period numerous trading platforms started offering the service of selling/buying DAO Tokens and this was key for the increase of DAO Tokens value and popularity.<sup>38</sup>

Proposals played a key role in the purpose of DAO tokens since the main aim of raising ETH was for funding projects. For a project to receive funds from the DAO Ethereum blockchain address a proposal must be submitted. For submitting a proposal two requisites must be met: firstly, the individual or organization submitting the proposal must possess at least one DAO token, secondly a forfeit deposit of ETH must be made to the DAO entity. It was highly publicized that the first proposal would be submitted by the founders of slock.it. After that the first steps to submit a proposal were met the latter was to be reviewed by a group of people called "curators". The curators were people chosen by the founders of slock.it and had a crucial role in the security and which proposals were then submitted for voting. Curators had a lot of power on proposals since the founders of slock.it relied on them for the failsafe protection. More in depth a curator had two main tasks the first one was to check that the proposal arrived for an identifiable person or entity the second was to control that the smart

---

<sup>37</sup> Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934: The DAO, Exchange Act Release No. 81,207, 2017 WL 7184670 (July 25, 2017). In this report, the SEC described an investigation of the DAO, a virtual organization, and its use of distributed ledger or blockchain technology to facilitate the offer and sale of DAO tokens to raise capital.

<sup>38</sup> Maume, *supra* note 21, at 16, 17-18

contract respected the code that the curators had deployed on the Ethereum Blockchain. After that all the conditions were met the proposals were then subject to voting from the holders of DAO tokens, the weight of each DAO token holder was proportional to the amount of DAO tokens that they possessed, if a quorum was reached then ETH from the DAO address were sent to a contractor that would fund the proposal. The list of proposal that had to be voted for could be seen on the whitelist available on the DAO website.<sup>39</sup>

On the 26th of May some concerns started to arise about the security of the funds deposited on the DAO account on the Ethereum blockchain. The founders of Slock.it were starting to realize that the code was vulnerable. Therefore, a proposal was submitted named the “DAO Security Proposal” nevertheless on June 17th, 2016, an attack to the DAO funds happened and 1/3 of the ETH present on the DAO account were illegally transferred to a different account on the Ethereum Blockchain. The attacker was fortunately slow down by a defensive mechanism present on the DAO code therefore the attacker couldn’t transfer/nor exchange the ETH stolen for 27 days. The founders of Slock.it asked Ethereum if a hard fork could be applied that consisted in transferring all the ETH gathered during the offering to a recovery address and consequently any DAO Token holders could adopt the hard fork and avoid any losses.<sup>40</sup>

## b. Legal Discussion

After analyzing deeply how the DAO Tokens were created the structure behind it and its aim it is time to understand the legal discussion that the Commission carried out and the position that the latter took on the subject. It is important to state that the Security and Exchange Commission is aware of the technological development happening and the application of Distributed Ledger Technologies to create coins and tokens to raise capital for various aims. This action is viewed as an Initial Coin Offering (I.C.O) a Token Sales. As previously stated, the main aim of the Commission in the discussion on DAO Tokens is to remember how U.S. Security Laws apply to the various new technologies. The form of an organization is of little importance when tackling the issue of offerings of securities rather circumstances and facts are of superior importance. The offering or sale of securities without the “full and fair disclosure” granted by the registration statement that the S.E.C requires are prohibited. The rationale

---

<sup>39</sup> U.S. Security and Exchange Commission, *supra* note 6 at 2, 2-10

<sup>40</sup> U.S. Security and Exchange Commission, *supra* note 6 at 2, 10



behind the need to submit a registration statement is to provide investors with information about what they want to invest in and therefore enable them to make a full and informed decision. As reported in *SEC v. Aaron*, 605 F.2d 612, 618 (2d Cir. 1979) “The registration statement is designed to assure public access to material facts bearing on the value of publicly traded securities and is central to the Act’s comprehensive scheme for protecting public investors.”<sup>41</sup> The fact that a registration is necessary is backed up by Section 5 of the Securities Act as it provides “unless a registration statement is in effect as to a security, it is unlawful for any person, directly or indirectly, to engage in the offer or sale of securities in interstate commerce. Nevertheless, it must be remembered that violations of sections 5 of the Securities act of 1933 do not require scienter ”.<sup>42</sup> Scienter is a legal term that stands for the fact that there isn’t the requirement of criminal intent whatsoever. It is essential to reach a precise conclusion on whether a financial asset such as DAO Token is a security to then understand which law does DAO Tokens and similar technologies must follow. A foundational principle of the Securities Laws is that an investment contract is considered a security as stated under Section 2(a)(1) of the Securities Act and Section 3(a)(10) of the Exchange Act. An investment contract is “is an investment of money in a common enterprise with a reasonable expectation of profits to be derived from the entrepreneurial or managerial efforts of others”<sup>43</sup>. This concept that emerged following the case *SEC v. Howey* has a flexible nature. Three sections of this statements must be analyzed in order to fully understand the legal nature of distributed ledger technologies and their use to raise capital.<sup>44</sup> The first section that must be dealt with is the concept of money but as stated in *Useton v. Comm. Lovelace Motor Freight, Inc.*, 940 F.2d 564, 574 (10th Cir. 1991) in which the judge states: “In spite of Howey’s reference to an ‘investment of money,’ it is well established that cash is not the only form of contribution or investment that will create an investment contract.”<sup>45</sup> This statement clearly suits our case because in the DAO example investors didn’t buy DAO Tokens with money, they exchanged ETH, and therefore we can conclude that an investment of “money”, the use of the term money doesn’t restrict the form of investment only to cash but other types of investments for example goods and services. Secondly the statement emerged following the *Howey* case states that there

---

<sup>41</sup> *Aaron v. SEC*, 446 U.S. 680 (1980), U.S. Supreme Court, <https://supreme.justia.com/cases/federal/us/446/680/>.

<sup>42</sup> Securities and Exchange Act of 1934(as Amended through P.L. 112-158, Approved August 10,2012),<https://www.nyse.com/publicdocs/nyse/regulation/nyse/sea34.pdf>.

<sup>43</sup> *SEC v. Howey Co.*, 328 U.S. 293 (1946), U.S. Supreme Court, <https://supreme.justia.com/cases/federal/us/328/293/>.

<sup>44</sup>U.S. Security and Exchange Commission, *supra* note 6 at 10, 10-17

<sup>45</sup> *Useton v. Commercial Lovelace Motor Freight*, 940 F.2d 564 (10th Cir. 1991),<https://casetext.com/case/useton-v-commercial-lovelace-motor-freight>.

must be an investment on a common enterprise and with a reasonable return on such investment, this also fits our case because as strongly promoted by slock.it founders on their site and on the DAO website the main aim for the creation of DAO Tokens was to raise ETH in order to fund projects and if there was any profit from the project DAO Token holders could share the potential profits.<sup>46</sup> Finally the last section that must be evaluated in order to conclude that DAO Tokens can be considered as securities is that the investors profits depend on the managerial efforts and expertise of others. The Slock.it founders and creators of DAO created a website on which all of the necessary information regarding the DAO was disclosed, with the writing of the White Paper and the creation of a forum where many important questions and doubts regarding the DAO were addressed and the Slock.it founders and creators of DAO actively participated in answering the issues that mainly regarded the future of the DAO such as its aim and furthermore they explained and took care of the security of the DAO code. The Slock.it founders and creators of DAO sold themselves as experts of the Ethereum Blockchain and put together a team of curators based on their expertise and credentials. The Slock.it founders and creators of DAO never explicitly stated their intent of managing the enterprise, but their conduct gave without any doubt investors feelings that if they gained any profit from the DAO Token venture was due to the managerial efforts and expertise of others. The curators had a crucial role in managing the DAO, they had to monitor DAO operations, safeguard investor funds. A clear example of the latter is when the attack happened, due to their expertise of the Ethereum Blockchain and their drafting of the DAO code that they were able to repel the attack and safeguard investors funds. In addition, curators had also to determine and analyze which proposal to accept and send to the whitelist for voting. It can be argued that Slock.it founders, creators of DAO and the curators had significant power over the proposals submitted to voting. They could vet contractors, decide whether to submit a proposal to the whitelist for voting, order and determine the frequency of proposals and decide whether to half the quorum necessary to pass a proposal. Investors had limited voting power since they could only vote for a proposal once it was submitted to whitelist. Furthermore, the investors were widely dispersed and were limited in their ability to communicate. These arguments undermine the ability of DAO token holders to exercise control over the enterprise and therefore they relied on the managerial efforts and expertise of others.<sup>47</sup>

---

<sup>46</sup> U.S. Security and Exchange Commission, *supra* note 6 at 10, 10-17

<sup>47</sup> 9 Press Release, SEC, SEC Issues Investigative Report Concluding DAO Tokens, a Digital Asset, Were Securities (July 25, 2017), <https://www.sec.gov/news/press-release/2017-131>

It can be concluded that DAO Tokens satisfy and respect the contents of the definition of an investment contract and therefore they can be considered as securities.<sup>48</sup> In my view the discussion previously analyzed was key for my understanding of how the Security and Exchange Commission tackles legal questions on new developing technologies. As reported by the Security and Exchange Commission in the conclusion of their discussion: “Whether or not a particular transaction involves the offer and sale of a security regardless of the terminology used will depend on the facts and circumstances, including the economic realities of the transaction. Those who offer and sell securities in the United States must comply with the federal securities laws, including the requirement to register with the Commission or to qualify for an exemption from the registration requirements of the federal securities laws. The registration requirements are designed to provide investors with procedural protections and material information necessary to make informed investment decisions. These requirements apply to those who offer and sell securities in the United States, regardless of whether the issuing entity is a traditional company or a decentralized autonomous organization, regardless of whether those securities are purchased using U.S. dollars or virtual currencies, and regardless of whether they are distributed in certificated form or through distributed ledger technology. In addition, any entity or person engaging in the activities of an exchange, such as bringing together the orders for securities of multiple buyers and sellers using established nondiscretionary methods under which such orders interact with each other and buyers and sellers entering such orders agree upon the terms of the trade, must register as a national securities exchange or operate pursuant to an exemption from such registration.”<sup>49</sup> It is fundamental to state that all of the various rules and sections of the Security Act of 1933, the legal principles that emerged following the various cases on Distributed Ledger Technologies are flexible and not rigid therefore open to adaptations to new technologies. The Security and Exchange Commission firstly stated the general principle of law and the definition of an investment contract and then it discussed how every section of the definition applied to the DAO case and finally concluding that the DAO Tokens are securities and are regulated by the U.S. Security Laws. Moreover, the Security and Exchange Commission concludes the discussion by refreshing the fact that those who participate in an unregistered offer and sale of securities not subject to a valid exemption are liable for violating Section 5. It therefore makes

---

<sup>48</sup> U.S. Security and Exchange Commission, *supra* note 6 at 10, 15

<sup>49</sup> U.S. Security and Exchange Commission, *supra* note 6 at 17,17-18

it unlawful to issue securities unless exemption if not registered following the U.S. registration regulations.<sup>50</sup>

## V. The XRP Case.

On the 22nd of December 2020 the last day in office of former Chairman Jay Clayton a lawsuit against Ripple Labs was struck. The Lawsuit has not ended, and I decided to examine this case because it could be as Stuart Alderoty the general council at Ripple labs Inc. stated “This is much bigger than Ripple. It’s about the future of digital assets in the U.S.”<sup>51</sup>

### a. What is XRP

An important distinction must be made between Ripple and XRP, these two terms are usually exchanged for one another, but it is an error. Ripple short for Ripple Labs Inc. is the corporation for which XRPs were created it describes itself as “a global payment network”<sup>52</sup>, the latter is the currency used for Ripple Labs Inc. products. XRP is a cryptocurrency it was the third in market capitalization after Bitcoin and Ethereum. XRP is used as a vehicle to facilitate quick conversions between different currencies. It operates on the Ripple Labs network where it is used as medium of exchange<sup>53</sup>. XRP’s blockchain operates in a slightly different way from the main cryptocurrencies such as Bitcoin and Ethereum which grant access to their ledger to anyone who can solve complex equations quickly (mining). Bitcoin and Ethereum are minted at a gradual rate on an ongoing process. The fundamental distinction between Bitcoin and Ethereum with XRP is that the previous two operate on a fully decentralized ledger, instead Larsen created 100bln XRPs for Ripple Labs in one time in 2012. Nevertheless, the large quantity of the XRP stored at Ripple are to be sold in scheduled allotments furthermore, Ripple reports that it has no control on the XRP reserves to “tap them as they wish”<sup>54</sup>. XRP uses a unique distributed consensus mechanism to validate transactions. In which participating nodes verify the authenticity of the transaction by carrying out a poll.

---

<sup>50</sup> U.S. Security and Exchange Commission, *supra* note 6 at 17,17-18

<sup>51</sup> Lewis, *supra* note 8

<sup>52</sup> Nathan Reiff reviewed by Sommer Anderson, Bitcoin vs. Ripple: What’s the Difference?, INVESTOPEDIA(Apr. 26, 2021), <https://www.investopedia.com/tech/whats-difference-between-bitcoin-and-ripple/>.

<sup>53</sup> Lewis, *supra* note 8

<sup>54</sup> Jeff John Roberts, Ripple says it will be sued by the SEC, in what the company calls a parting shot at the crypto industry, FORTUNE (Dec 22, 2020, 2:01 am gmt + 1 ), <https://fortune.com/2020/12/21/ripple-to-be-sued-by-sec-cryptocurrency-xrp/>

This method makes the validation process much faster and consumes little energy. The advantages are that transactions verification are extremely fast, it takes four to five seconds, instead the cons may be that with this new type of blockchain the latter loses its feature of being decentralized that is one of the key reasons that cryptocurrencies have become popular.<sup>55</sup>

## b. Legal Discussion

After analyzing how XRP works we can start shifting our discussion to the SEC v. Ripple Labs Inc. lawsuit. As previously stated, the SEC has charged Ripple for raising over 1.3\$ billion through an unregistered, ongoing digital asset offering<sup>56</sup>. Cryptocurrency experts are overlooking the XRP closely since it might create a legal precedent in the digital asset world and regulate the latter.<sup>57</sup> The law case hasn't ended, the Ripple lawyers attempted to ask the court to dismiss the lawsuit due to a lack of notification by the SEC before filing a lawsuit. The SEC is legally required to inform Ripple Labs Inc. that there was an ongoing infringement of the U.S. security laws before filing a lawsuit. This defense is unlikely to succeed nevertheless Ripple has obtained a "victory" in the preliminary rulings since its lawyers gained access to SEC's internal documents and shielding Ripple's executive's bank records from discovery<sup>58</sup>. Following the legal complaint filed by the SEC<sup>59</sup> Ripple responded submitting a written response. The four main defense strategies adopted by Ripple's legal team put out the strong position in which XRP is fortified. The first statement is "XRP does not qualify as an investment contract", Ripple Labs never entered in a contract with XRP holders and since it is a virtual asset is not under SEC jurisdiction.<sup>60</sup> Furthermore, XRP holder are not entitled to Ripple Labs profits. Secondly "The SEC is out of step domestically and globally" no regulator ever mentioned that a virtual currency such as XRP, must be registered as a security before the complaint, thus failing from providing legal clarity themselves.<sup>61</sup> Thirdly "the SEC is picking winner and losers" since the SEC stated that "the sales of ETH and BTC are not securities

---

<sup>55</sup> David Rodeck & John Schmidt, *Meet Ripple & XRP, Cryptocurrencies for Banks*, FORBES ADVISOR(May 6, 2021, 9:59pm), <https://www.forbes.com/advisor/investing/what-is-ripple-xrp/>.

<sup>56</sup> U.S. Security and Exchange Commission, *supra* note 7

<sup>57</sup> Margaret A Dale et al., *Cryptocurrencies and Other Digital Assets: A New Regime*, 11 NAT'L L. REV 1, 1 (2021)

<sup>58</sup> Steves, *supra* note 10

<sup>59</sup> Complaint, SEC v. Ripple Labs, Inc., No. 1:20-cv-10832 (S.D.N.Y. Dec. 22, 2020) [hereinafter Ripple Complaint].

<sup>60</sup> CNBC TV18, *SEC vs Ripple: Case Explained, Cryptocurrency News*, CNBC TV18 (Apr 5, 2022, 4:35pm), <https://www.cnbctv18.com/cryptocurrency/sec-vs-ripple-case-explained-13054042.htm>.

<sup>61</sup> *Id.*

transactions “ which means that XRP can’t be discriminated against. <sup>62</sup> Fourthly “The SEC has distorted the facts” as they have interpreted and presented statements out of context. Garlinghouse himself wrote that he would prove the SEC’s allegations as false in due course of time.<sup>63</sup> Ripple’s first move was to file FOIA to access the internal documents and letters sent while evaluating whether BTC and ETH were not securities, understand the criteria used and consequently shield itself from the SEC’s lawsuit. The main legal strategy that the SEC is trying to implement is to prove the applicability of the Howey test to XRP to classify it as an investment contract and consequently as a security. Furthermore, the SEC stated that Larsen and Garlinghouse sold XRPs to make a personal profit and when the XRPs were first created a large quantity was taken by Ripple’s executives and then sold for personal profits. On the other hand, Ripple’s attorneys argued that The Ethereum Foundation granted itself 12 million Ether during the fundraising event, and Consensus currently holds an undisclosed amount.<sup>64</sup> If the SEC will be able to apply the Howey test to XRP, probably Ripple Labs could be liable for not following U.S. security Laws.<sup>65</sup>

The case is far from over but in my view the XRP is a clear example of the hypocrisy that has flooded the legal systems over cryptocurrency litigation. Putting aside political aspects that are not of our interest, there are various elements that point out my attention. First is the fact that Ripple lawyers are trying to gain access to the SEC documents on how they classified Bitcoin and Ethereum not as Securities and therefore are not liable under security laws. Under my view XRP and Bitcoin are two very different types of cryptocurrencies due to the difference in the technological mechanisms that power their blockchains, the extremely different path to carry out transactions and unlocking new blocks and finally their difference in their function. It is possible that XRP could be considered as a security, but this is not the focus of my argument. My main point is that there is a unreasonable confusion about firstly the classification under what law of digital assets and secondly the application of those laws. In the XRP case the main objective of the SEC is to prove that XRP is a security to then carry out an enforcement action against Ripple Labs Inc.<sup>66</sup> This legal strategy may provoke some confusion since as previously meticulously studied and analyzed following the DAO investigation the SEC came to a conclusion that the DAO Tokens could be considered as

---

<sup>62</sup> *Id.*

<sup>63</sup> *Id.*

<sup>64</sup> Matt Stankiewicz, *Ripple Responds to the SEC’s Enforcement Action* , JDSUPRA (Feb 3, 2021), <https://www.jdsupra.com/legalnews/ripple-responds-to-the-sec-s-8692649/>

<sup>65</sup> U.S. Security and Exchange Commission, *supra* note 7

<sup>66</sup> U.S. Security and Exchange Commission, *supra* note 7

securities, nevertheless no enforcement action followed, nor an explicit statement saying that the DAO Tokens were exempted from the registration requirements following the Securities and Exchange Act of 1934.<sup>67</sup> Furthermore as stated by Yuliya Guseva, the DAO report was the first practical piece of evidence where the SEC highly stresses the fact that Crypto Assets must comply with the Securities and Exchange Laws, therefore it can be argued that Ripple had developed its project in 2012–2013 and begun asset distribution several years before the SEC outlined its position on crypto assets. Consequently, it could not have moved to “cooperate” beforehand.<sup>68</sup>

In conclusion the legal strategies adopted by the SEC may provoke some confusion due to the different measure of judgement. In my view there has been an ongoing confusion on the regulations that have to be applied to cryptocurrencies and now the SEC can’t sue the first cryptocurrency that comes to their desk. It makes no sense since there are a huge number of cryptocurrencies in the financial markets that haven’t registered following the U.S. Security Laws and could be easily classified as securities. In my view congress must deal with the digital asset issue and not postpone this critical decision. Digital assets are starting to be more and more popular in our present and will certainly occupy a key role in our future and regulating them is a crucial step for enabling a sustainable growth of the digital asset market and protecting investors from unlawful acts carried out using digital assets.

## VI. Congress attempt to regulate Crypto currencies

### a. Cryptocurrency Act (Bill) 2020

In the second section of the dissertation, I focused on how the SEC is tackling the issue of regulating cryptocurrencies. The SEC is not taking a precise position on the regulation of crypto currencies, and furthermore different agencies are sending different messages.<sup>69</sup> As I concluded the need for the enactment of regulations of cryptocurrencies is necessary. There have been many attempts to regulate the digital asset market such as the Cryptocurrency Bill of 2020 that failed.

---

<sup>67</sup> U.S. Securities and Exchange Commission, *supra* note 6

<sup>68</sup> Yuliya Guseva, *The SEC, Digital Assets, and Game Theory*, 46:3 J. CORP. LAW 630, 669-671 (2021).

<sup>69</sup> Commentators describe federal government’s attempt to regulate blockchain technology as “a mess”. See Michele B. Neitz, *How to Regulate Blockchain’s Real-Life Applications: Lessons from the California Blockchain Working Group* (December 11, 2020), in JURIMETRICS: THE JOURNAL OF LAW, SCIENCE AND TECHNOLOGY at \*17, \*18 (forthcoming January 2021), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3747231](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3747231).

The Bill gives three definitions: Crypto-commodity, Crypto-currency, Crypto-security.<sup>70</sup> The Bill then listed in Section 3 the primary regulatory oversight for digital assets<sup>71</sup> and in Section 4 the Bill regulated the exchanges that traded a particular type of crypto asset.<sup>72</sup> The Bill had various issues, the primary one was the lack of regulatory flexibility and this was because it didn't consider the right balance between protecting the public and promoting innovation.<sup>73</sup> Due to this missing flexibility many doubts may rise.<sup>74</sup> The reason for the need of such a flexible regulation is that digital assets are evolving rapidly therefore the legislator needs to create a regulation such that it can deal with this continuous evolution of digital assets. A further issue with the Bill was that the government wanted to trace crypto transactions and consequently cryptocurrencies would lose their pseudonymity that is one of the key and innovative features that crypto assets are built up by. The Crypto Currency Act of 2020 was too vague and broad not drafted in a way that could regulate such a quick developing market. As stated by professor "The optimum way to regulate the industry would be for the agencies to come up with a robust set of rules."<sup>75</sup> This quote helps us conclude that the Cryptocurrency Act simply defined in a more precise way the players in the game instead a winning strategy in order to regulate the cryptocurrencies would be a scenario in which all the agencies listed in the act would work together to create cohesive framework.<sup>76</sup>

The main reason to justify why the SEC is maintaining a general position on regulating digital assets is because if a too restrictive regulation would be implemented there is a high risk that many corporations or businesses that operate with crypto assets would flee from the U.S. and the latter would lose the little control that they currently have. Since federal intervention has been little and vague the analysis of how different state legislatures reacted to the development of digital assets is key to understand what actual regulations are in action. In this paper I will analyze how four states implemented regulations and are attempting to attract crypto businesses to carry out their business in their state and also how a single state will benefit from the presence of digital assets businesses in their state.

---

<sup>70</sup>H.R. 6154, 116th Congress (2020).

<sup>71</sup>*Id.*

<sup>72</sup>*Id.*

<sup>73</sup>Neitz, *supra* note 69, at \*24, \*26-27

<sup>74</sup>Neitz, *supra* note 69, at \*24, \*25

<sup>75</sup> . Blockchain businesses will move for regulatory reasons. See Daniel Kuhn, The Cryptocurrency Act of 2020 Is 'Dead on Arrival,' Washington Tells Sponsors, COINDESK (Mar. 11, 2020, 1:19 P.M.), <https://www.coindesk.com/the-cryptocurrency-act-of-2020-is-dead-on-arrivalwashington-dc-tells-sponsors>

<sup>76</sup> Neitz, *supra* note, 69 at \*24, \*25



## b. Biden's Order for Crypto Regulations

On March 9<sup>th</sup> a “historic”, as described by the Treasury of the United States, order was signed by President Biden. The order briefly stressed Federal agencies to take a unified approach to regulation and oversight of digital assets.<sup>77</sup>

This event is the first practical step of a United States (U.S.) President towards the creation of a clear and predictable framework to regulate digital assets. The order focuses on six main topics: consumer and investor protection, financial stability, illicit activity, U.S. competitiveness on a global stage, financial inclusion, responsible innovation. Protecting investors has been a fundamental aspect of the order, since the crypto market has been causation for main losses suffered by investors. The order urges regulators to ensure sufficient protection from systematic risk posed by digital assets. An element that was highlighted in the order was the argument on stable coins. There are great concerns about the latter due to the fact on how they operate. Tether, USDC, UST are all stable coins that should guarantee investors a safe harbor from periods of turbulent times in the market. The main problem behind stable coins is the mechanisms behind them that guarantee this type of stability, Tether (80 billion in circulation)<sup>78</sup> and USDC have different assets behind them, such as cash and less risky assets behind them. Instead, UST (terra) “was” kept as a stable one to one exchange rate through a mechanism behind it. The mechanism worked as follows it would exchange a crypto currency such as LUNA to keep the value of UST to 1\$. Recently due to a mispricing and due to a series of unexpected event the value of LUNA dropped heavily the algorithm behind UST couldn't keep the value of UST to 1\$ and this lead to a massive sell off on this “stable coin” which had as market capitalization before the crash of about 18\$ billion.<sup>79</sup> This event highlighted a fundamental weakness in crypto currencies exacerbated by the lack of regulation, the market is highly unstable and the fact that the a “stable coin” crashed is a strong evidence in favor of my argument. This example is a clear reason for the creation of regulations in order to protect public investors.

Moreover, an important focus of Biden's Order was given to rooting out illegal activity in the crypto space. The president called for an “unprecedented focus of coordinated action”

---

<sup>77</sup> CNBC TV18, *Biden just put out an executive order on cryptocurrencies — here's everything that's in it*, CNBC TV18 (Mar 9, 2022, 6:48pm), <https://www.cnbc.com/2022/03/09/heres-whats-in-bidens-executive-order-on-crypto.html>

<sup>78</sup> CNBC TV18, *supra* note, 77

<sup>79</sup> Marco Quiroz-Gutierrez, *TerraUSD's collapse will take down every other algorithmic stablecoin, crypto analysts say*, FORTUNE (May 19, 2022, 10.19pm GMT + 2), <https://fortune.com/2022/05/19/luna-terrausd-ust-algorithmic-stablecoins-doomed/>

from federal agencies in mitigating illicit finance and national security risks posed by cryptocurrencies. He is also urging international collaboration on the issue.<sup>80</sup> Furthermore, another important section was added to the Order, the research for a sustainable development of such digital assets. The latter as explained previously are built creating a decentralized distributed on which to unlock new blocks on the chain complex mathematical algorithms must be carried out. To carry out these operations special computers are required and a high concentration of energy is fundamental for the functioning of the latter and this leads to a huge energy consumption. Nowadays mining is the cause for a huge amount of CO2 emissions due to the use of enormous amounts of energy. Therefore, Biden's Order also focuses on the fact of building a sustainable system on what can be the future of online banking, currencies, and online transaction vehicles.<sup>81</sup> Furthermore, Biden also put out a new objective "The Digital Dollar". Biden isn't saying whether the U.S. should launch its own digital currency. Rather, he's calling on the government to place "urgency" on research and development of a potential CBDC. The Federal Reserve last year began work on exploring the potential issuance of a digital dollar. The central bank released a long-awaited report detailing the pros and cons of such virtual money but didn't take a position yet on whether it thinks the U.S. should issue one. While CBDCs could rapidly speed up the settlement of payments, policymakers are evaluating a number of issues around financial stability and privacy.<sup>82</sup>

It can be concluded that the recent Presidential Order is a significant step towards the construction of a clear and predictable regulatory system to better protect and safeguard public investors, reduce illicit activity, and build a sustainable background to the development of such new technologies.

## VII. Regulation by Enforcement

A key concept must be explained to tackle a critical legal analysis of the SEC approach towards the regulation of the digital asset environment. The SEC has entered a series of enforcement actions towards digital assets.<sup>83</sup> The United States does not have a regulatory framework designed for crypto-markets, which effectively creates a pure regulation via

---

<sup>80</sup> CNBC TV18, *supra* note, 77

<sup>81</sup> CNBC TV18, *supra* note, 77

<sup>82</sup> *Id.*

<sup>83</sup> See, e.g., CarrierEQ, Inc., Securities Act Release No. 10575, 2018 WL 6017664 (Nov. 16, 2018), <https://www.sec.gov/litigation/admin/2018/33-10575.pdf> [<https://perma.cc/NM4X-66VV>]; Paragon Coin, Inc., Securities Act Release No. 10574, 2018 WL 6017663 (Nov. 16, 2018), <https://www.sec.gov/litigation/admin/2018/33-10574.pdf> [<https://perma.cc/TJ3D-93DL>].

enforcement environment.<sup>84</sup> Furthermore applying a regulation by enforcement approach it implies that pre-crypto-rules can be applied to new digital assets. This fact is crucial to understand whether the existing rules provide enough guidance for a new evolving market or if there is the need for a regulator intervention by creating new sets of rules to adapt to this rapid growing market. 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.<sup>85</sup> The Securities and Exchange Commission has made clear that it will not shy away from a politically contentious strategy of “regulation by enforcement.”<sup>86</sup> SEC officials have told industry participants in recent gatherings that the approach has become necessary as new practices and products rapidly become mainstream before they are specifically spelled out in legislation or SEC regulations.<sup>87</sup> There are two opposing views on the approach that the SEC has adopted. On one hand the issuers of new digital assets since there is not a predictable and clear regulatory framework use this as excuse to avoid compliance with regulatory requirements. On the other hand, the new SEC enforcement chief instead states that the enforcements were patterned on long established securities laws covering fraud and deceptive disclosure, he furthermore mentioned a court ruling “DAO tokens” where the court classified the tokens as securities. The court ruled that firms could not argue they are not liable to enforcements based on unfamiliarity with regulations covering crypto currencies. “The law does not require the government to reach out and warn all potential violators on an individual or industry level,” the court said. This concept has been criticized by the Republicans stating the fact that compliance professionals at firms will need to act as a “gatekeeper in a fuzzy world” by taking a “risk based” approach to the apparent change in SEC enforcement strategy.<sup>88</sup> Republicans greatly criticised this approach by the SEC and require for the need of the introduction of a clear and predictable regulatory requirement for new digital assets and

---

<sup>84</sup> Yulia Guseva, *Crypto-Enforcement Around the World*, CAL. L. REV. 94 , 100-104 (2021),

<sup>85</sup> Guseva, *supra* note, 84

<sup>86</sup> Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934: The DAO, Securities Exchange Act Release No. 81207 (Jul. 25, 2017) <https://www.sec.gov/litigation/investreport/34-81207.pdf> [<https://perma.cc/L5M7-ZXV8>]; Munchee Inc., Securities Act Release No. 10445 (Dec. 11, 2017) , <https://www.sec.gov/litigation/admin/2017/33-10445.pdf> [<https://perma.cc/Q4JY-RD2Q>]; TurnKey Jet, Inc., SEC NoAction Letter (Apr. 3, 2019), <https://www.sec.gov/divisions/corpfin/cf-noaction/2019/turnkey-jet-040219-2a1.htm> [<https://perma.cc/8SZ4-MWWH>]. There have also been a number of other enforcement actions. See e.g., Press Release, SEC, SEC Charges ICO Superstore and Owners with Operating as Unregistered BrokerDealers (Sept. 11, 2018), <https://www.sec.gov/news/press-release/2018-185> [<https://perma.cc/395P-37KR>] (detailing the first action against an unregistered broker dealer).

<sup>87</sup> Richard Satran, *U.S. SEC embraces “regulation by enforcement” as securities industry morphs beyond rulebooks*, REUTERS (Nov 12, 2021, 3:44pm), <https://www.reuters.com/article/bc-finreg-sec-regulation-by-enforcement-idUSKBN2HX1OR>

<sup>88</sup> Guseva, *supra* note 84

therefore the recent SEC’s approach is not suitable when to be applied to new technologies such as digital assets. As supported by two Republican members. “Recognizing that the digital landscape is evolving, and decentralized finance is challenging financial products, intermediation, and financial markets, the only certainty we see is that people have questions about how to comply with the applicable laws and regulations,” the commission’s two Republican members -- Hester Peirce and Elad Roisman. The dissent agreed on the existence of securities law violations in the case but criticized the commission for failing to specify which assets and activities were problematic. The two commissioners called for “providing clear regulatory guideposts and then bringing enforcement actions” rather than a pushing ahead with a “clue-by-enforcement approach” in bringing what they see as coercive settlements that “have become the go-to source of guidance.”<sup>89</sup>

“Moreover, the SEC instead of a formal rule, the SEC has chosen a more flexible modus operandi of enforcement actions in reliance on the functional definition embedded in the Supreme Court *Howey* decision interpreting the term “investment contract.”<sup>90</sup>

The SEC has also given its interpretation of an investment contract when dealing with securities.<sup>91</sup>

In enacting the 1933 Securities Act, Congress left the term “investment contract” purposely broad,<sup>92</sup> and the Supreme Court designed the relevant functional test accordingly in order for the test to “embod[y] 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.”<sup>93</sup> Because the Court developed this test for investments that did not fit within the then known securities universe, such as shares of stock,

---

<sup>89</sup> *Id.*

<sup>90</sup> Guseva, *supra* note 68, at 635

<sup>91</sup> Framework for “Investment Contract” Analysis of Digital Assets, U.S. SEC. & EXCHANGE COMMISSION, <https://www.sec.gov/corpfin/framework-investment-contract-analysis-digital-assets> [https://perma.cc/99KD-XG4P] (last modified Apr. 3, 2019). [from here in after Framework]

<sup>92</sup> H.R. 5480, 73rd Cong. (1st Sess. 1933) (leaving investment contract undefined). See also *SEC v. W.J. Howey Co.*, 328 U.S. 293, 299 (1946) (defining the term “investment contract” using flexible principles and underscoring the broad statutory purpose of ensuring disclosure under securities law); *Reves v. Ernst & Young*, 494 U.S. 56, 61 (1990) (“Congress . . . did not attempt precisely to cabin the scope of the Securities Acts. Rather, it enacted a definition of ‘security’ sufficiently broad to encompass virtually any instrument that might be sold as an investment.”); *SEC v. Edwards*, 540 U.S. 389, 393 (2004) (discussing the breadth of the definition and observing that “Congress’ purpose in enacting the securities laws was to regulate investments, in whatever form they are made and by whatever name they are called.” (citing *Reves v. Ernst & Young*, 494 U.S. 56, 61, 110 S.Ct. 945, 108 L.Ed.2d 47 (1990)). “To that end, it enacted a broad definition of ‘security,’ sufficient ‘to encompass virtually any instrument that might be sold as an investment.’”

<sup>93</sup> *Howey*, 328 U.S. at 299. The jurisprudence is, however, clear that *Howey* is not a universal test. See, e.g., *Landreth Timber Co. v. Landreth*, 471 U.S. 681, 697 (1985) (holding a sale of stock of a company is a sale of securities); *Reves*, 494 U.S. at 64–66 (holding the “family resemblance” test should be applied to determine whether a “note” is a “security” under securities law).

the test is far-reaching in scope and captures a broad range of transactions. Consequently, even though a digital asset is expressed in a code, the attendant facts, and circumstances, including the way how it is distributed, may point toward an investment contract.<sup>94</sup>

In addition, the focal point is to understand the extent to which the Howey test is elastic in order to permit the SEC to carry out a policy of enforcement by regulation instead of introducing a formal rule. Due to the legal confusion in the market in my view there is the necessity of either introducing a new evaluation test when dealing with digital assets (such as the Howey test for securities) or introducing a new set of regulation framework for digital assets.

The main innovative aspect of digital assets such as Bitcoin and Ethereum is that fact of the decentralization both under an ownership perspective and a from a managerial one.<sup>95</sup> The latter is probably the main reason for the non-applicability of the Howey test to the majority of digital assets, since one of the four prongs that must be satisfied is the expectation of profit through the efforts of others and in the case of decentralized management this prong is not satisfied and therefore the underlying digital asset is not a security.<sup>96</sup>

I am strongly in favour of the position taken by the two Republican members. The situation in the crypto market is confusional and it gives too much subjective power to the SEC to handpick the crypto to sue and use as precedent to regulate a whole new market of assets. In my view as securities have a regulatory framework to follow and to comply with, as should new digital assets that are conquering a large proportion on the world capital markets. In conclusion technological innovation requires for legal innovation and in my view the Howey test is not elastic enough to determine whether a digital asset can be considered a security and consequently the modus operandi applied by the SEC of regulation by enforcement is not the optimal way to face the regulation of digital assets. Furthermore, the current situation is only leading to a sub-optimal situation in the digital asset market<sup>97</sup>. Issuers will not comply with securities requirements since the nature of the financial asset being offered is not clear, this

---

<sup>94</sup> Even though “[t]he digital asset itself is simply code . . . the way it is sold . . . most often is, a security – because it evidences an investment contract.” William Hinman, Director, Div. of Corp. Fin., U.S. Sec. & Exch. Comm’n, Digital Asset Transactions: When Howey Met Gary (Plastic), Remarks at the Yahoo Finance All Markets Summit: Crypto (June 14, 2018), <https://www.sec.gov/news/speech/speech-hinman-061418> [<https://perma.cc/X3QB-W7NL>] [hereinafter Hinman Speech].

<sup>95</sup> David Yermack, *Corporate Governance and Blockchains*, 21 REV. FIN. 7, 10 (2017) (“Making such powerful third parties obsolete and disintermediating financial transactions was the central goal of Nakamoto’s (2008) proposal for a peer-to-peer electronic cash system.”).

<sup>96</sup> SEC v. W.J. Howey Co., 328 U.S. 293, 299 (1946) (defining the term “investment contract” using flexible principles and underscoring the broad statutory purpose of ensuring disclosure under securities law)

<sup>97</sup> Guseva, *supra* note, 68, at 644

leads to a vulnerable situation for public investors to fraud and high risk. Since the main scope of Securities and Exchange Act of 1933 was to protect consumers and enhance transparency the current situation does not poi exactly in the same direction. To tackle this problem, the SEC will carry out enforcement actions, firstly damaging consumers, because any holder of the security that is being sued the price of that security will plummet, secondly it is not a predictable plan of action due to the uncertainty regarding the nature of that specific digital asset.

#### a. Game Theory on The SEC vs Digital Assets Game

I will analyse an experiment carried out by Yulia Guseva in applying game theory to this situation between the SEC and the digital assets issuers.<sup>98</sup> I will first analyse a static game (bi-matrix game) to set the scene, where we find ourselves in the situation of a game with complete but imperfect information.<sup>99</sup> Later on a dynamic game built always by Yulia Guseva that in my view better fits the scenario will be evaluated. To solve the game, we may use the traditional game theory methods of looking at the best strategies of the participating players and the equilibrium “that will result if each player undertakes her best strategy.”<sup>100</sup> In our game we have two players private players and the SEC, each having a binary choice of action. Both players can choose to either “cooperating” or “not-cooperating”. For the private players cooperating stands for complying with securities law or not.” The SEC Under the option “cooperate”, could forbear proceeding with enforcement and/or show leniency to a firm that attempted to comply. The reverse of this cooperative behaviour would be pursuing a strict enforcement policy (not cooperating)<sup>101</sup>. Now let’s build the bimatrix by assessing the payoffs of each player in the different situations of the game.<sup>102</sup> What can they gain from cooperating or not cooperating? For the private player, the payoff is X. X includes the player’s lower risk of a civil penalty, injunctive relief, and/or possible disgorgement of profits, as well as a higher chance that its business project would proceed unimpeded. X also includes a lower risk of

---

<sup>98</sup> *Id.*

<sup>99</sup> DOUGLAS G. BAIRD ET AL., *Game Theory And The Law* 10, HARVARD UNIV. PRESS 1994, (defining games with complete but imperfect information, games with complete and perfect information, and games with incomplete information).

<sup>100</sup> Ian Ayres, *Playing Games with the Law*, 42 STAN. L. REV. 1291, 1297 (1990) (reviewing ERIC RASMUSEN, *GAMES AND INFORMATION: AN INTRODUCTION TO GAME THEORY* (1989)). The related equilibria concepts are Nash, dominant strategy, and iterated dominant strategy equilibria. The dominant strategy exists “if each player’s strategy is a best response to any strategies of other players. By contrast, the less demanding Nash equilibrium solution concept requires that each player’s strategy be a best response only to the other players’ Nash equilibrium strategies.” *Id.* at 1297 n.36.

<sup>101</sup> Guseva, *supra* note, 68 at 653

<sup>102</sup> Ayres, *supra* note 96, at 1296 n.31

enforcement against the founders. In addition, X incorporates a decreased probability of a private follow-on action, i.e., a situation where private plaintiffs file a lawsuit or bring a securities class action following an SEC enforcement action.<sup>103</sup> The cost to cooperate nevertheless is not zero.<sup>104</sup> The overall payoff in the situation of full compliance will be X-S. When a firm is not fully compliant then the probability of a SEC action increases and therefore the utility is not X anymore, but it decreases to  $X/\mu$ . On the other hand, also, the cost is not as high as in the case of full compliance in this case the cost is not anymore S but  $S/\mu$ . For the SEC, there are the two policy payoffs of supporting innovation (let us denote it “Benefit (Innovation)”) and of fiercely protecting investors and market integrity (“Benefit (Integrity)”). Note, however, that there is no direct trade-off between Innovation and Integrity, and the choice of payoff for the SEC is not binary. For instance, the SEC might lose some Benefit (Innovation) through harsh enforcement, which would suggest an ant innovation stance, but it could reduce this loss by awarding cooperation credit for attempted compliance to bona fide private players. “Should the SEC award cooperation credit, the loss of Benefit (Innovation) would be reduced by some factor (“ $\beta$ ”). Note also that the benefits from acting as the “protector” of investors and market integrity (Benefit (Integrity)) could also be reduced if the SEC initiated enforcement against bona fide private players who attempted to comply. For one thing, the potential harm to investors would be lower in those cases because there could be no fraud in the first place. The second problem is that those bona fide innovative projects could be beneficial to the market, albeit not fully compliant with the securities laws. As the SEC has neither experience nor expertise in assessing the merits of technological innovations, it might be unable to fully grasp if a specific enforcement action would promote market integrity. To reflect this possibility, Benefit (Integrity) is reduced by some factor  $\alpha$ . The final factor relating to the Commission’s payoff is, of course, the costs of bringing enforcement actions (“Enf.”).<sup>105</sup>

We can simplify this game in a normal form representation.

---

<sup>103</sup> On the interaction between private and public litigation, see, for example, Jennifer Arlen, *Public Versus Private Enforcement of Securities Fraud* 44–47 (2007) (unpublished manuscript) (<https://weblaw.usc.edu/assets/docs/Arlen.pdf> [<https://perma.cc/U5RTJ4FZ>]); Amanda Rose, *Reforming Securities Litigation Reform: Restructuring the Relationship Between Public and Private Enforcement of Rule 10b-5*, 108 COLUM. L. REV. 1301, 1336–37, 1345–48 (2008); Alexander I. Platt, “Gatekeeping” in the Dark: *SEC Control Over Private Securities Litigation Revisited*, 72 ADMIN. L. REV. 29, 33–40, 48–50 (2020).

<sup>104</sup> PWC DEALS, *CONSIDERING AN IPO TO FUEL YOUR COMPANY’S FUTURE?: INSIGHT INTO THE COSTS OF GOING PUBLIC AND BEING PUBLIC* 14 (2017), <https://www.pwc.com/us/en/deals/publications/assets/cost-of-an-ipo.pdf> [<https://perma.cc/MV65-MEV9>] (“Two-thirds of the CFOs surveyed estimated spending between \$1 million and \$1.9 million annually on the costs of being public[.]”).

<sup>105</sup> Guseva, *supra* note, 68, at 654

Pic 1. Bimatrix: The Payoffs<sup>106</sup>

SEC	Private Firms	
	Cooperate	Not cooperate
Cooperate	(X-S); Benefit (Innovation)	(X + S); – (Benefit (Innovation)+Benefit (Integrity))
Not cooperate	(X/μ - S/μ); (Benefit (Integrity)/α – Benefit (Innovation)/β – Enf.)	-(X-S); (Benefit (Integrity) – Enf.)

Let's start analysing the total payoffs of this bi-matrix. In the cooperate-cooperate scenario the total payoff of the private firms is the utility given by X minus the cost of complying with the securities laws. In cooperate-cooperate the SEC would build rapport with the industry, support innovation, and facilitate capital formation. It would reap Benefit (Innovation), which also should burnish the SEC's reputation and promote innovative projects developed by bona fide private players.<sup>107</sup> In the situation of not cooperate-not cooperate the private firms will lose the benefit of X and instead gain S since it will not have payed the costs of complying with the securities law. "Under the SEC's perspective it will gain utility under a consumer protection perspective and therefore it will benefit (integrity), it will lose by carrying out the enforcement that nevertheless is a constant cost. Next is "cooperate/not cooperate": when the firm cooperated and made a good faith attempt at compliance, but the SEC responded with an enforcement action regardless of the private player's compliance efforts. Here, the SEC would experience a payoff reduction in relation to the costs of enforcement (Enf.). A more important issue, however, is the lower joint payoff from its regulatory objectives of Innovation and Integrity. The payoffs from each depend on the underlying social loss from prosecuting possibly valuable and non-fraudulent projects ( $\alpha$ ) and the extent to which the SEC appreciates and rewards compliance ( $\beta$ )."<sup>108</sup> Finally the last quarter, the upper right one in which we have private firms: not cooperate and SEC: cooperate. In this situation the private firms gain a payoff of X+S, instead the SEC loses under an integration perspective because it is allowing fraudulent firms to develop and therefore are not protecting public investors and under an innovation perspective because it is allowing non valuable projects to develop and harm the market.

<sup>106</sup> Guseva, *supra* note, 68, at 654

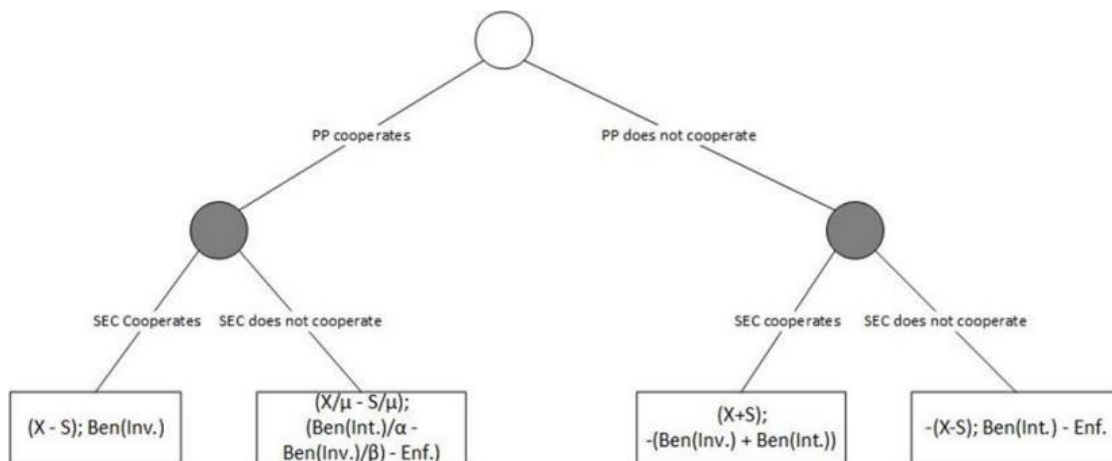
<sup>107</sup> *Id.*

<sup>108</sup> Guseva, *supra* note, 68, at 655



Overall, this game presents a problem since the combination with the maximum utility for the SEC is the cooperate-cooperate scenario instead for private firms is the firms: not-cooperate, SEC: cooperate. The latter situation presents a sub optimal scenario and in order to fix this problem we need to change the nature of the game. The second game that Yulia Guseva built, in my view explains in an optimum way the current scenario. It is important to add a feature, the players can't play simultaneously since the private firms first take the decision of what policy to adapt before the reaction of the SEC. Furthermore, the private firms should know that if they take a certain decision there will be a more probable position that the SEC may take. Let's build the game.<sup>109</sup>

Pic. 2: Tree Diagram



In this game we can clearly see that the private firms will first take the decision on whether to cooperate or not and later the SEC will take their position. A point must be discussed to proceed with the evaluation, it is that in order to give a final solution to this game or to the previous bi-matrix obviously the precise utility given to each variable must be known and therefore the conclusion that will be reached will be an approximation. Nevertheless, the approximation made won't be a bad one because we certainly can know the signs and direction of certain behaviours the fact absent is the precise value nevertheless the main concept behind this game is not hindered by this absence.

<sup>109</sup> *Id.*, at 658

In the dynamic game we can see that if the private firms will cooperate since we consider the SEC a rational player it will probably choose to cooperate, we will come back to this situation later. Instead, if the private firms decide to not cooperate the scenarios are two. The first one is that the SEC will enforce and the second is that the SEC will not enforce. In my view the latter situation may only happen not following a decision of the SEC to not enforce but since the firms “luckily” manages to “camouflage” behind the cooperating firms and “save itself”.<sup>110</sup>

In conclusion in my view the optimal solution to this game under a market efficiency, innovation, customer protection perspective is the cooperate-cooperate game. Nevertheless, a discussion must be made on this scenario.

It can be argued that in order to favour a compliance under a firm perspective a regulatory framework must be provided in order for the private investors to comply. Moreover, build a different type of test such as the Howey test to evaluate whether a certain asset can be classified as a digital asset and consequently comply with the digital asset regulations.

#### VIII. Analysis on the interpretation by the Security and Exchange Commission on cryptocurrencies.

The SEC is adapting a highly criticized policy in attempting to regulate the digital asset market.

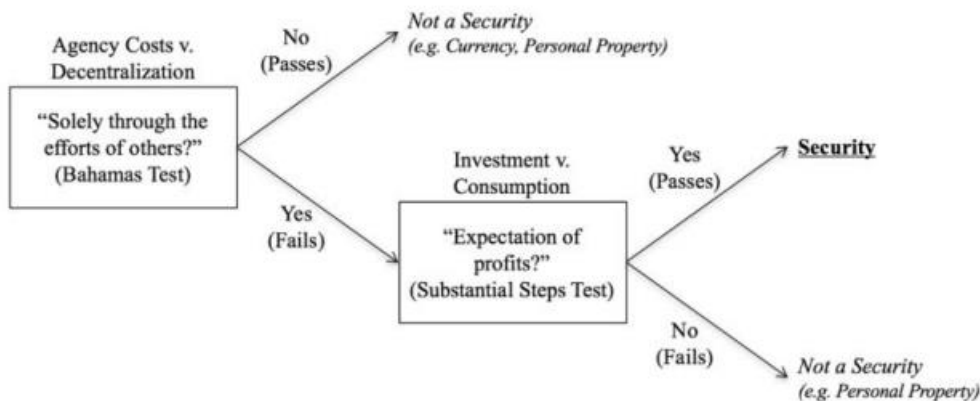
As previously mentioned, my position is strongly in favor of two different possible policies that the SEC could implement. The first one and under my point of view the easiest is the fact of building a regulatory framework to regulate digital assets as already in place to regulate securities. On the other hand, if the SEC continues to consider digital assets as securities then it should build a test such as the Howey test for digital assets that if satisfied then the same regulations that are applied to securities must hold also for digital assets. In this section I will analyze a possible test that could be carried out to evaluate whether a digital asset can be classified as a security and a practical application on a digital asset not classified as security (Bitcoin) and on a digital asset classified as one (DAO).

---

<sup>110</sup> STEVEN SHAVELL, FOUNDATIONS OF ECONOMIC ANALYSIS OF LAW 481 (2004) (“[O]ne often encounters the notion that the probability of sanctions . . . matters more than their magnitude,” although there is “the need for caution in interpreting what would appear to be the effect of the probability of sanctions . . .”).

## a. Howey Applied to Digital Assets

The study built a decisional tree to determine whether a digital asset can be considered as an “investment contract” under Howey.<sup>111</sup> The first step is to evaluate if the underlying asset is “sufficiently decentralized” so that it does not satisfy the “efforts of others prong”<sup>112</sup>. Below I will insert the tree diagram illustrated on the paper.<sup>113</sup>



We enter the second step only if the digital asset is not sufficiently decentralized. I will first analyse the “Bahamas Test” and then proceed with the “Substantial Steps Test” to evaluate whether the “Expectations of profits” prong is satisfied or not.<sup>114</sup>

### i. The “Bahamas” test

If an asset is sufficiently decentralized, when analysed under the investment contract definition it creates a contradiction. Since decentralization means in practical terms no one is in charge, if there is no other party to the contract or any expectation of performance, then there is no contract the Bahamas test evaluates the following: “If there is a minting and selling of an instrument, as opposed to open mining of it, is there either an explicit or implicit contract to build and manage software such that if there were a breach of that contract, the project would

---

<sup>111</sup>M. Todd Henderson & Max Raskin, *A Regulatory Classification of Digital Assets: Toward an Operational Howey Test for Cryptocurrencies, ICOs, and Other Digital Assets*, No. 2:443 COLUM. BUS. L. REV. 444, 459-478 (2019), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3265295#](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3265295#)

<sup>112</sup> Framework, *supra* note, 91

<sup>113</sup> Raskin, *supra* note, 110

<sup>114</sup> Framework, *supra* note, 91

fail? If there is no such sale or if there is no such obligation, then the “efforts of others” prong of the test is not satisfied, and the instrument is not a security.”<sup>115</sup> A simpler way to present it “if the sellers fled to the Bahamas or ceased to show up to work—like Satoshi Nakamoto—would the project still be capable of existing? If the answer is “yes,” then the risk of fraud is sufficiently reduced such that the instrument is not a security.”<sup>116</sup> It can be argued that there can be various ways of interpreting the Howey test.<sup>117</sup> A strict way to interpret the Howey test could lead to a conclusion that the expectation of profit must come solely from the efforts of the “promoter” or someone that is not the buyer so it could conclude that any intervention by the buyer could immediately not respect the “through solely the efforts of others” prong. On the other hand, lower courts have interpreted the test in a broader way for example the Ninth Circuit reported the test as “whether the efforts made by those other than the investor are the undeniably significant ones, those essential managerial efforts which affect the failure or success of the enterprise.”<sup>118</sup> This text conflicts with Hinnman’s definition that sufficiently decentralized assets are not securities, since if there is an intervention of someone that is not the promoter such as the coders who built the protocol all of these assets would satisfy the “efforts of others” prong.<sup>119</sup>

A more realistic statement was made by the Supreme Court in *United Housing Foundation v. Forman* where a specification was made in which the efforts must be “entrepreneurial or managerial.”<sup>120</sup> ““Managerial” implies a kind of special position, either as a fiduciary or simply one with additional privileges, responsibilities, and abilities. In a

---

<sup>115</sup> Raskin, *supra* note, 110

<sup>116</sup> *Id.*

<sup>117</sup> SEC v. W. J. Howey Co., 328 U.S. 293, 301 (1946).

<sup>118</sup> SEC v. Glenn W. Turner Enters., Inc., 474 F.2d 476, 482 (9th Cir. 1973).

<sup>119</sup> Raskin, *supra* note, 110

<sup>120</sup> *United Hous. Found., Inc. v. Forman*, 421 U.S. 837, 852 (1975).

sufficiently decentralized network, none of those managerial or entrepreneurial efforts are present because there are no managers or entrepreneurs.”<sup>121</sup>

Two further elements must be taken into consideration when analysing the “efforts of others” prong. The important difference between minting and mining. The first resembles the issuing of a stock and therefore the promoter/s can change the nature of the asset and have an advantage towards the public consumers. Instead, the concept of mining resembles the search for gold, there is a fixed quantity that can be in this case “unlocked” through the exchange of code and there are no players that play in advantage. The only discussion that can be made is that the promoters will have a timing advantage towards the majority of the public and therefore can start mining before. The Article reaches two conclusions “First, assets that are mined in an open process where anyone can participate should be considered *prima facie* sufficiently decentralized. In such a case, there is an exchange not of money, but of computing resources for the digital asset. This fails the first element of the Howey test—that there must be an investment of money.<sup>122</sup> Presales, ICOs, and their ilk, on the other hand, should presumptively fail the “efforts of others” prong of the test because there is an exchange of money not for an asset, but for a promise to create an asset or network that will make such an asset valuable.<sup>123</sup> This has analogues in extant case law.<sup>124,125</sup>

---

<sup>121</sup> Raskin, *supra* note, 110

<sup>122</sup> , SEC v. Blockvest, LLC, No 18-CV-2287, 2019 WL 625163, at \*7 (S.D. Cal. Feb. 14, 2019) (finding that a company’s offer to exchange its own tokens for potential investors’ digital currencies satisfied the first prong of the Howey test).

<sup>123</sup> See COINBASE, A SECURITIES LAW FRAMEWORK FOR BLOCKCHAIN TOKENS 16 (2016), <https://www.coinbase.com/legal/securities-lawframework.pdf> [<https://perma.cc/HN7C-BN3V>] (“This may similarly apply in the case of a presale made prior to the launch of the system. For example, one court has found that a purchase agreement that was entered into prior to the construction of a resort community demonstrated a common enterprise. This was in part because the construction company was pooling presale purchase commitments in order to obtain financing to fund the project, and thus the completion of the project was dependent on generating sufficient investor interest.”); see also *Wooldridge Homes, Inc. v. Bronze Tree, Inc.*, 558 F. Supp. 1085 (D. Colo. 1983).

<sup>124</sup> *Silver Hills Country Club v. Sobieski*, 55 Cal. 2d 811 (1961); *All Seasons Resorts, Inc. v. Abrams*, 68 N.Y.2d 81 (1986); see also *VAN VALKENBURGH*, *supra* note 28, at 49 (“The information asymmetries inherent in a token pre-sale agreement are by-necessity more pronounced than a sale of a token powered by a running decentralized network.”).

<sup>125</sup> Raskin, *supra* note, 110

Now let's apply the Bahamas test to two different assets. The first is Bitcoin, the latter is a digital asset created by a person or group called Satoshi Nakamoto.<sup>126</sup> Nakamoto wrote the Bitcoin White paper where no investment claims were made nor did he<sup>127</sup> make any promises on the fulfilment of the project. Nakamoto only after a few years after launching the project disappeared and retained 980,000 bitcoins<sup>128</sup> which he mined. The project Nakamoto built is the perfect example of how open-source community resources work. The SEC deemed Bitcoin as not a security.<sup>129</sup> Bitcoin easily passes the Bahamas test and is in my view the perfect example since the promoter fled to the Bahamas(disappeared) and the way the project was built the fact of his disappearance didn't hinder the success of the project. Furthermore, Bitcoin works on a mining technology that goes against the Howey prong through the efforts of others. As stated in the article "This is an easy case. As Director Hinman said in his speech, "when I look at Bitcoin today, I do not see a central third party whose efforts are a key determining factor in the enterprise."<sup>130</sup> Thus, bitcoin appears sufficiently decentralized to pass the Bahamas Test and should not be regulated as a security under Howey"<sup>131</sup>

Let's now analyse the DAO by using the Bahamas test. The fact of the curators that had special rights and powers that normal users didn't have clearly is immediately detected by the Bahamas test and it doesn't pass the first test of the Bahamas test. Therefore, the DAO passes to the next step in our tree diagram.

The next step in the tree diagram is the expectation to profit prong. The second test to continue the movement down the tree diagram is the Substantial Step Test. The article explains this test

---

<sup>126</sup> For a general background of Bitcoin, see Max I Raskin, *Realm of the Coin: Bitcoin and Civil Procedure*, 20 *FORDHAM J. CORP. & FIN. L.*, 969, 971– 72 (2015).

<sup>127</sup> Nakamoto's identity is not known for simplicity I will use "he" as a personal noun.

<sup>128</sup> Evelyn Cheng, *There Are Now 17 Million Bitcoins in Existence – Only 4 Million Left to 'Mine,'* CNBC (Apr. 26, 2018), <https://www.cnbc.com/018/04/26/there-are-now-17-million-bitcoins-in-existence--only-4-million-left-to-mine.html> [<https://perma.cc/XN49-CW72>].

<sup>129</sup> Framework, *supra* note, 91

<sup>130</sup> *Id.*

<sup>131</sup> Raskin, *supra* note, 110

as follows: “Are the promoters taking good faith, substantial steps towards completion of a project that they believe will have use to some users of the token beyond resale value or economic income? If so, then the instrument is not sold with an expectation of profit and thus is not classified as an investment contract”<sup>132</sup> and a further appendix is added” A developer, seller, or token exchange shall be free from civil and criminal liability for violations of securities laws if they: 1. Register as a developer, seller, or token exchange with the SEC or approved self-regulatory organization, providing [name, contact information, and a brief description of the token related activities in which they intend to engage or have previously engaged], and 2. Have a reasonable and good faith belief that the tokens they are developing, selling, or exchanging are not either: a. Tokens that represent a promise by a developer or seller to deliver a future open blockchain token if the developer or seller accepted money from purchasers and advertised that said future token will be a valuable investment; or b. Tokens that represent specific contracted-for rights to profits derived from the efforts of the developer or seller beyond mere appreciation of the token’s value if the developer or seller has accepted money from purchasers; and 3. Take reasonably prompt and effective action to cease development, sale, or exchange of a token that is identified as a security by the SEC or otherwise ceases to meet the criteria described in (2)(a)–(b) above”<sup>133</sup> The DAO fails also this test and therefore can be deemed as a security nevertheless the SEC decide to not carry out an enforcement.

It can be concluded that some tests can be formalized to tackle the regulation of the digital asset market.

---

<sup>132</sup> Raskin, *supra* note, 110

<sup>133</sup> *Id.*

## IX. State Law approach to regulate Cryptocurrencies

### a. California

Different strategies have been implemented by states to attract crypto businesses to their state. An interesting approach that must be analysed is California's approach. The latter established a working group with the objective of understanding the risks, advantages, uses and applications of blockchain technologies. A fundamental aspect that the state of California recognized is that it understood the tension between protecting Californians and not losing blockchain business to interjurisdiction competition.<sup>134</sup> California is pursuing a strategy with a long-term objective to attract crypto currency businesses. It is not rushing into enacting state laws as Wyoming has done, it is gathering a background of data and is building a set of core competencies on digital assets that will permit California to enact the best possible set of laws and furthermore it will guarantee that behind the enactment of such laws there will be a well prepared team to take care of litigations and therefore this may lead to a well-functioning digital asset regulation system. These features remind me of what discussed by Professor Pierluigi Matera in his paper on Delaware's dominance. The latter argued that one of the two main theories that describe the reasons for Delaware's dominance is the credible commitment theory. Delaware's efficiency and the predictability of the results of laws suits. Delaware's efficiency is due to its competencies and the rapidity with which its legal system is organized.<sup>135</sup> In my view California's approach can be linked to the first feature of the credible commitment theory since by building a set of competencies on digital assets it will enable it to create an efficient legal system, to develop the predictability aspect a vast amount of case law is necessary. Moreover, California will not be able to develop and reach a large case law body if the regulatory structure won't be modified as soon as possible for the legal system to be set in motion. Nevertheless, some actions have been taken as in September 2018, the State's legislature enacted Assembly Bill 2658 which introduced legal definitions of "blockchain technology" and "smart contract." The effect of these definitions would be to legalize and facilitate record keeping using distributed ledgers.<sup>136</sup> In June 2016, the California legislature enacted Cal. Stat. § 320.6, which makes it unlawful to sell or exchange a raffle ticket for any

---

<sup>134</sup> Neitz, *supra* note, 69 at \*27, \*28.

<sup>135</sup> Pierluigi Matera, *Delaware's Dominance, Wyoming's Dare. New Challenges, Same Outcome?*, 27(1) FORDHAM JOURNAL OF CORPORATE & FINANCIAL LAW at 10,11 <https://ssrn.com/abstract=3763106>

<sup>136</sup> Kohen, *supra* note 13



kind of cryptocurrency. Furthermore in February 2019, Assembly Bill 1489 was introduced to the California legislature to enact the "Uniform Regulation of Virtual Currency Business Act" which, "would prohibit a person from engaging in virtual currency business activity, or holding itself out as such, unless licensed or registered with the Department of Business Oversight, subject to a variety of exemptions." Penalties for violating this proposed bill could be as high as \$50,000 for each day of violation.<sup>137</sup> California, in February 2019, introduced Assembly Bill 2150 which would exempt "digital asset" from the state's "Corporate Securities Law of 1968" by presuming that "digital asset meeting specified criteria" is not "an investment contract within the meaning of a 'security.'" 2019 CA A.B. 2150 (NS).<sup>138</sup> In 2019 many final opinion letters have been issued following discussions regarding crypto currencies as Manuel P. Alvarez, commissioner of the Department of Business oversight explained in his final opinion letter how a Bitcoin transaction occurred and whether BTC ATMs were subject to MTA and the regulations that followed<sup>139</sup>. In 2020, Governor Newsom signed into law the California Consumer Financial Protection Law, which seeks to create a new Division of Consumer Financial Protection to monitor markets, with a research arm that will keep up with emerging financial products such as cryptocurrencies.<sup>140</sup>

California is losing digital assets business corporation that are fleeing to other states that have instead enacted regulations for digital assets. As assembly leader Calderon stated unfortunately the earliest possible implementation would be on Jan 2022 and a lot of movement will be happening in this space.<sup>141</sup>

## b. Delaware

Delaware in July 2017 enacted the Senate Bill 69 which allowed corporations to keep corporate records on networks of electronic databases included block chains. The law expressly permits corporations to trade corporate stock on the blockchain so long as the stock ledgers serves three functions: (1) to enable the corporation to prepare the list of stockholders, (2) to record information, and (3) to record transfers of stock.<sup>142</sup> It can be concluded that Delaware

---

<sup>137</sup> *Id.*

<sup>138</sup> *Id.*

<sup>139</sup> Manuel P. Alvarez, *Bitcoin ATM not subject to MTA*, STATE OF CALIFORNIA DEPARTMENT OF BUSINESS OVERSIGHT (Dec. 16, 2019), <https://dfpi.ca.gov/wp-content/uploads/sites/337/2019/12/Bitcoin-ATM-not-subject-to-MTA-12-16-19.pdf>.

<sup>140</sup> Kohen, *supra* note 13

<sup>141</sup> Neitz, *supra* note 69, at \*27, \*30.

<sup>142</sup> Kohen, *supra* note 13

hasn't taken a clear position on how to regulate fully cryptocurrencies such as for example Wyoming instead it merely authorized corporations to keep corporate records on networks of electronic databases included block chains.<sup>143</sup>

#### c. Florida

Florida's Money Transmitter Act does not expressly include the concepts of "virtual currencies" or "monetary value" and the State's Office of Financial Regulation has not given direct guidance as to the applicability of the Act on virtual currency users and issuers, but have suggested that persons who offer cryptocurrency "wallets", buy or sell cryptocurrencies, or exchange cryptocurrency for fiat are not necessarily outside the scope of the activity subject to the State's Money Transmitter Act.<sup>144</sup>

#### d. Hawaii

Hawaii has issued public guidance on the applicability of State MTL to cryptocurrency transactions, stating generally that "cryptocurrency transactions" require a money transmission license. Initially in Hawaii following the state's Money Transmitter Act is uniquely burdensome in that it requires licensees to hold "in trust permissible investments having an aggregate market value of not less than the aggregate amount of its outstanding transmission obligations." This requirement has proven financially untenable for virtual currency operators, including Coinbase, who have suspended service to Hawaii. However, In August 2020, Hawaii allowed companies play in its no-license-necessary digital currency sandbox through its Digital Currency Innovation Lab (DCIL). Sandbox participants are exempt from the requirement to maintain a cash equivalent, and from acquiring the usual money transmitter license, through June 2022. In January 2021, the DCIL started accepting a second round of applicants. With respect to money transmission laws, in January 2019, the Hawaii Senate introduced a bill to extend "the money transmitters act to expressly apply to persons engaged in the transmission of virtual currency" and require "licensees dealing with virtual currency to provide a warning to customers prior to entering into an agreement with the customers." 2019 HI S.B. 1364 (NS) January 24, 2019.<sup>145</sup> In February 2020 the Hawaii legislature introduced a bill that created a

---

<sup>143</sup> *Id.*

<sup>144</sup> *Id.*

<sup>145</sup> Kohen, *supra* note 13

blockchain working group as California did. Hawaii has taken and is taking steps to promote blockchain technologies and is planning to create courses to introduce and educate future generations on distributed ledger technologies due to the increasing use in everyday life.<sup>146</sup>

#### e. Wyoming

Wyoming instead adopted a quicker approach.<sup>147</sup> In 2019, Wyoming shook both regulators and the crypto industry by passing a staggering 13 new blockchain laws regarding cryptocurrencies that will clarify and legalize various forms of cryptocurrency use. As such, this quiet little state, home of Yellowstone National Park, has become an unlikely destination for crypto money service businesses (MSBs) in the United States thanks to its flexible, practical, and forward-thinking legislative innovations. Proponents of crypto regulation say that without clear regulations, innovation using cryptocurrencies is being slowed. Confusion is causing entrepreneurs to sit idly by because of fear that they might break some laws. At the same time, other countries are drawing these innovators away from the US because they have already created rules that have made their countries friendlier to cryptocurrencies. Crypto regulation is needed to protect against fraudulent initial coin offerings (ICO) and cryptocurrency trading platforms. One estimate puts the frequency of initial coin offering scams to be as high as 80%. Without understandable guidelines and regulations, fraud could become the rule instead of the exception in the United States. The key to creating cryptocurrency regulations in the US is promoting accountability, consistency, and order while avoiding confusion and undue burdens. Wyoming crypto regulation divides blockchain-based assets into three different classes of property assets: Digital consumer assets (eg, utility tokens), Digital securities (eg, Investment contracts), Virtual currencies (eg, Bitcoin, Ether, and other altcoins). Furthermore, A business doesn't have to move to Wyoming to take advantage of these new crypto laws any more than a business has to move to Delaware to be a Delaware corporation. An individual or business can set up their own Wyoming LLC, trust, foundation, corporation, or other business entity. Another benefit is that Wyoming is one of the most tax-friendly states in the country. Wyoming has no personal income tax, no corporate tax, and for the most part, no surprise business taxes that show up elsewhere. One concern about incorporating a business in Wyoming has been that the state doesn't have its own special court

---

<sup>146</sup> *Id.*

<sup>147</sup> Commentators refer to Wyoming's quick approach as "Hare Approach" see Neitz, *supra* note 61, at \*30.

for resolving business disputes as Delaware does. Wyoming already thought of that, however. It solved this concern by setting up its own Wyoming chancery court or business court. These new crypto laws will also create revenue, jobs, and capital for the state of Wyoming. The state legislators have even created a bill that enables cryptocurrency miners to negotiate directly with Wyoming's electric utilities.<sup>148</sup> Other states are starting to follow Wyoming's approach, such as Texas, never the less it must be remembered that the regulations regarding digital assets implemented by Wyoming were quickly executed and therefore the situation in which the courts may end up clogged up due to issues with legislation may happen and if it happens in a state such as Wyoming, a small state, it can quickly react to the legal issues.<sup>149</sup>

#### f. New York

In New York (also Washington adopted strict regulations on cryptocurrencies) the state initially introduced a strict regulation to sell cryptocurrency in New York, but currently is changing its approach and could loosen up digital asset's regulations.<sup>150</sup> In 2015 the New York Department of financial services created a "Bitlicense" every corporation that wanted to sell cryptocurrencies in New York needed a Bitlicense. The latter can be considered the most rigorous crypto regulation, it was difficult to acquire.<sup>151</sup> It laid out which business activity could be considered a virtual currency business.<sup>152</sup> New York lost many crypto currency corporations that fled to other states at least ten Bitcoin companies announced that they were stopping all business in New York State due to the regulations, a phenomenon The New York Business Journal called this the "Great Bitcoin Exodus".<sup>153</sup> and therefore it is considering to relax some of the restrictions implemented.<sup>154</sup> New York has realized that the regulations were particularly strict and received various critics for it. Many Bills have been introduced starting from the first quarter of 2019. A bill was introduced in January 2019, which would allow "New York state agencies to accept cryptocurrencies as a form of payment."<sup>155</sup> Another bill introduced in June, 2019 would recognize electronic contact by an owner as written contact and include unclaimed

---

<sup>148</sup> Caitlin Long, *Wyoming's Pro-Blockchain Laws Tame The Wild West of Crypto*, SYGNA, <https://www.sygnia.io/blog/wyomings-pro-blockchain-laws-tame-cryptos-wild-west/>

<sup>149</sup> Neitz, *supra* note, 69 at \*30, \*31

<sup>150</sup> Commentators refer to this as the "Boomerang effect" see Neitz, *supra* note, 61 at \*31

<sup>151</sup> Only 25 have been given in 25 years see Neitz, *supra* note 61, 34 at \*31

<sup>152</sup> Usman W. Cohan, *Oversight and Regulation of Cryptocurrencies: BitLicense* (March 3, 2018), SSRN at 2\*, 3\*, <https://ssrn.com/abstract=3133342>

<sup>153</sup> *Id.* at 4\*

<sup>154</sup> Neitz, *supra* note 69, at \*31

<sup>155</sup> Kohen, *supra* note 13

virtual currency within the definition of abandoned property.<sup>156</sup> Also New York established a task force to study and report the implementation of DLT included blockchain technologies.<sup>157</sup> In response to critics, on June 24, 2020, the New York State Department of Financial Services ("NYDFS") proposed a conditional licensing framework for virtual currency business entities so that these entities can participate in the coin listing process for licensed exchanges while their Bitlicense is being evaluated. The regulator plans to release new guidance and documentation to assist applicants, letting applicants receive conditional licenses if they partner with already-licensed entities to conduct licensed exchanges.<sup>158</sup> It can be concluded that also New York is trying to loosen up its state regulations on cryptocurrencies due to the fact that if not done it will probably loose many of its virtual currency corporations that will flee to other states that offer cryptocurrency friendly regulations.<sup>159</sup>

## X. Conclusion

To sum up everything that has been stated so far, in the first part of the research paper I tackled the technical aspects of how cryptocurrencies come into existence. The mechanisms that power cryptocurrencies, such as blockchains, that are a particular type of distributed ledger technologies and how the cryptocurrencies protect the identity of their investors by keeping their personal details anonymous. Cryptocurrencies are numerous in types and are therefore difficult to regulate, a broad distinction can be made between coins and tokens. This huge variety can lead to confusion on how to classify cryptocurrencies, as securities or as commodities, this confusion leads to an indecision on under which law are cryptocurrencies regulated. Bitcoin and Ethereum, the two largest cryptocurrencies in market capitalization, were not considered by the SEC as securities and therefore don't need to comply with security laws. In the last part I deeply analyze two different interventions by the SEC. As already explained before what arises from evaluating them is that there is the need for clarification on how to classify cryptocurrencies in order to avoid discrepancies in the Legal system and it would enable the cryptocurrency market to develop in a healthier way, as pled by the Presidential Order, since by introducing new rules or simply stating that cryptocurrencies are securities, public investors would be protected from fraudulent acts that can be carried out

---

<sup>156</sup> *Id.*

<sup>157</sup> *Id.*

<sup>158</sup> *Id.*

<sup>159</sup> Kohen, *supra* note 13

through the use of new digital assets. Congress has attempted to introduce bills to regulate virtual currencies, but the attempt was weak and vague since it left many doubts unanswered.

Overall, in my view the policy adopted by the SEC in other words, regulation by enforcement is a good strategy to favor dynamic developments in the market, nevertheless a set of regulatory requirements are essential for private issuers to comply with and then if the latter don't comply then enforcement is in my opinion correct. Simple, straightforward classification of digital assets with consecutive regulatory requirements are necessary to develop a healthy environment.

Concluding my in depth study of how different states have tackled the cryptocurrency regulation question it can be concluded that Wyoming has emerged amongst the others for crypto friendly regulations and then mainly two different approaches have been adopted by states. The first one is to enact a clarification statement on how the MTA laws of each state considers virtual currencies and therefore the latter are regulated by the MTA laws. Instead, other states such as Hawaii, California and now New York are taking a more balanced approach since they established a working group with the objective of studying how DLT work and their possible implementations and applications to our society to then enact the best possible combination of laws to regulate cryptocurrencies.