

Regulating Digital Assets in the United States: Security Tokens, Utility Tokens and Stablecoins

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☞ Digital assets; Financial regulation; United States; Virtual currencies

Abstract

Since the emergence of Bitcoin in 2008, cryptocurrencies have been garnering attention from market players and investors. They have evolved beyond the mere decentralised payment system which Satoshi Nakamoto intended. Today, crypto-assets can represent many kinds of assets ranging from stock and bond to interests in a unique business scheme. Due to their novelty and ever-changing functions, regulations on crypto-assets took years to take effect. In the US, the momentum on regulations accelerated after many fraudulent coin offerings occurred. The US Securities and Exchange Commission made several pronouncements on how crypto-assets would be regulated. Its approach was, however, to apply a single test to find traditional securities to various crypto-assets regardless of their functions. In this article, Takeshi Nagai and Georges Ugeux analyse interpretive and practical issues of that approach and suggest how crypto-assets should be regulated as part of a robust regulatory treating digital investments as a distinct asset class.

Introduction

Since the emergence of bitcoin in 2008, the blockchain technologies have been developing in a way that Satoshi Nakamoto, a pseudonymous person or group who launched bitcoin, probably did not expect. The distributed ledger, coupled with the incentive structure called “proof of work” had the potential not only for a tamper-resistant means of transfer of some value but also for a decentralised and autonomous enforcement system of

agreements. Once such an enforcement system took on a life in the form of the smart contract built in Ethereum, various kinds of peer-to-peer applications and businesses based on smart contracts have surged and ebbed in its short history.

The development is so rapid that laws and regulations on emerging schemes based on financial technologies have often lagged behind. The core difficulty of such a regulation is due to an unsolved problem of identity. While digital assets can be described, their nature is not material or does not correspond to existing categories of assets. This immateriality makes it impossible to define what “it” is. The definition of crypto assets being impossible, and often controversial, regulators had to resort to analogies to use a proxy regulation. While this was probably the only way regulators could create rules on these “objects”, it is not satisfactory, and its legal foundation is not robust. Compound to the issue of the definition of the object of the regulation was the institutional regulating institution.

To name a few, many initial coin offerings (ICOs) took place without appropriate disclosure, and the US Securities and Exchange Commission (SEC) did not take effective action to regulate them until 2017, letting alone a description of the risks associated with their object. Also, despite a number of attempts, bitcoin ETFs have not been allowed by the SEC so far since it has yet to get a picture of how they can operate in accordance with relevant regulations. There has been the renewed interest in bitcoin exchange-traded funds (ETFs) with the nomination of Gary Gensler to Head of the Securities and Exchange Commission and the approval of a true Canadian bitcoin ETF. Whether one gets approved in the US is still unclear.¹

Having said that, the SEC, the Commodity Futures Trading Commission (CFTC) and the Financial Crimes Enforcement Network (FinCEN) have clarified to some extent their positions on regulating digital assets in recent years. Among those authorities, this article aims to outline the SEC’s positions and analyse issues that remain to be solved.

The discussions proceed as follows: the following section provides outlines of the Securities Act 1933 (Securities Act) and the Securities Exchange Act 1934 (Exchange Act) that are relevant to regulating digital assets. The third section addresses the terminology and taxonomy of digital assets to facilitate analyses and application of the relevant laws. Based on the categorisation discussed in the third section, the remaining sections introduce regulatory frameworks and applications with respect to, respectively, asset tokens, utility tokens and payment tokens.

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¹ Nikhilesh De, “State of Crypto: Will 2021 Finally Be the Year of the Bitcoin ETF?” (16 February 2021) available at: <https://www.coindesk.com/bitcoin-etf-2021> [Accessed 13 March 2021].

Relevant laws

Suppose a company plans to form a fund that raises capital by issuing a digital token on a blockchain, invests the raised funds in a variety of assets, and distributes a portion of the profits to token holders. Even this simple business has a bearing on regulations under all of the Securities Act and the Exchange Act.² The following are brief descriptions of when the business triggers each law and, if triggered, what requirements it needs to meet.

Securities Act 1933

The Securities Act, obvious from its title, regulates transactions of securities. The definition of “security” covers extensive financial instruments: stock, note, bond, certificate of interest in any profit-sharing agreement, security future, security-based swap, option on any security, any interest or instrument commonly known as a “security” and so on.³ If the digital token issued falls under this definition, the fund has to effect a registration statement for the digital token before it solicits investments from the public with a prospectus.⁴ Registration statements and prospectuses provide prospective investors with information reasonably necessary to decide whether to invest in a security.

To avoid filing a registration statement with the SEC, the Securities Act offers some exemptions. The most important in the context of digital tokens is r.506(c) of Regulation D,⁵ which is called a “private placement”. Under r.506(c), an issuer can dispense with a registration requirement if it makes an offer to sell a security only to “accredited investors”⁶ with the condition that purchasers cannot resell the security for a year.⁷ The rationale behind the private placement is that the protection of investors in the form of registration statements may not be imperative if a security being offered is to be held only by sophisticated investors who can fend for themselves. Among several private placements, many companies prefer this exemption most so far.⁸

Another type of private placement also came into use: Regulation A+.⁹ It was introduced by the Jumpstart Our Business Startups Act 2012 (JOBS Act).¹⁰ Although Regulation A+ has some inconveniences not seen in Regulation D, such as a cap of an amount raised, it is more suited for small to mid-sized companies, as explained below. Regulation A+ consists of two tiers. In Tier 1, issuers can raise funds only up to \$20 million during any given 12-month period. In Tier 2, issuers with more than one year of audited financial statements can raise up to \$50 million during any given 12-month period.¹¹ Both tiers are open to even non-accredited investors, with certain restrictions on wealth in Tier 2.¹² Issuers must electronically file an offering statement as a simplified disclosure document and, once conducting a Tier 2 offering, are subject to ongoing disclosure regulations.¹³ Last but not least, in Tier 2 offerings, issuers are exempted from blue sky laws—issuers are free from state securities laws.¹⁴ In 2019, the SEC for the first time approved a private offering under Regulation A+.¹⁵

Securities Exchange Act 1934

The Exchange Act mainly concerns market regulation as well as the intermediaries of securities transactions qualified to operate on a particular market. Intermediaries facilitate sales or purchases of securities in some way. If the fund retains an intermediary in offering a token that is a security or if a token holder does so when selling his token, the intermediary may be subject to the registration as such with the SEC.

The Exchange Act roughly classifies intermediaries into the following four categories, depending upon how they are involved in securities markets: broker, dealer, exchange, and clearing agency. A broker engages in the business of effecting securities transactions for the account of others.¹⁶ A dealer sells and buys securities as his business for his own account through a broker.¹⁷ For a broker or dealer to intermediate in transactions of a security on a national exchange, the registration filing needs to be effective as to the security with the exchange.¹⁸

² Other than these two acts, the example may give rise to regulations under the Investment Company Act of 1940 (Investment Act), the Commodity Exchange Act of 1936 (Commodity Act), and the Bank Secrecy Act of 1970 (Bank Act). These Acts are outside the scope of this article.

³ Securities Act s.2(a)(1).

⁴ Securities Act s.5(a)(1), (c).

⁵ Securities Act s.4(a)(2); 17 C.F.R. s.230.506(c).

⁶ 17 C.F.R. s.230.506(c)(2)(i). Section 501(a) lists accredited investors, including financial institutions and high-net worth individuals.

⁷ 17 C.F.R. s.230.502(d); s.230.144(a)(3)(ii), (d)(1)(ii).

⁸ In 2017, Protocol Labs Inc issued a digital token called “Filecoin Token” and raised over \$250 million taking advantage of r.506(c) of Regulation D. Protocol Labs Inc, “Notice of Exempt Offering of Securities” (Form D) (25 August 2017) available at: https://www.sec.gov/Archives/edgar/data/1675225/000167522516000001/xslFormDX01/primary_doc.xml. In 2018, Kodak used the same exemption to issue KODAKCoin on a platform named KODAKOne. Press Release, “KODAK and WENN Digital Partner to Launch Major Blockchain Initiative and Cryptocurrency” (9 January 2018) available at: https://www.kodak.com/us/es/corp/Press_center/KODAK_and_WENN_Digital_Partner_to_Launch_Major_Blockchain_Initiative_and_Cryptocurrency/default.htm [Both accessed 13 March 2021].

⁹ Securities Act s.230.251.

¹⁰ Anzhela Knyazeva, “Regulation A+: What Do We Know So Far?” (November 2016) available at: https://www.sec.gov/files/Knyazeva_RegulationA%20.pdf [Accessed 13 March 2021].

¹¹ Securities Act s.230.251(a). When conducting two offerings under Regulation A+ during a given year, the second one cannot exceed 30% of the aggregate offering price.

¹² Securities Act s.230.251(d)(2)(i)(C).

¹³ Securities Act s.230.251(d)(1), (f); s.230.257(b).

¹⁴ Securities Act s.230.256 and the Securities Act s.18(b)(4)(D)(ii).

¹⁵ Blockstack became the first to utilise Regulation A+, see Muneb Ali, “Blockstack Token Sale Becomes the First SEC-Qualified Offering in U.S. History” (2019) available at: <https://blog.blockstack.org/blockstack-token-sale-sec-qualified/> [Accessed 13 March 2021]. Soon after, YouNow, Inc also received an approval of the SEC to use Regulation A+, <https://www.sec.gov/Archives/edgar/data/1725129/000162827919000262/younow253g2.htm#sE664B5F37A59896099DCE8C497DF5EB5> [Accessed 13 March 2021].

¹⁶ Exchange Act s.3(a)(4)(A).

¹⁷ Exchange Act s.3(a)(5)(A), (B).

¹⁸ Exchange Act s.12(a)–(b).

The other two, not as a market player, contribute to providing a platform where market participants trade securities. An exchange maintains a marketplace for bringing together purchasers and sellers of securities.¹⁹ A clearing agency processes payments or deliveries of securities transactions.²⁰ An entity engaging in any of these activities has to file as such with the SEC,²¹ follow the rules under the Exchange Act in conducting its business and report periodically certain matters regarding its business.

Terminology and taxonomy

As is always with fast-evolving technologies, a lot of technical terms have kept coming up and disappearing in financial technology areas constantly during the last decade. Because of that, the SEC has exerted its authority over new financial technologies by issuing interpretive letters and no-action letters, not by categorising and defining those technologies in its own regulations. Hence, it would be of little help to look at statutes for definitions of the terminology of financial technology. Neither has the SEC defined relevant technical terms specifically. Instead, this section addresses the terminology and taxonomy often used practically, if not formally adopted by laws. This article also follows them, provided that when quoting or explaining public statements, pronouncements, publications, or the like, such parts conform to the meanings ascribed therein.

Beginning with a generic concept, the term “digital token” or “digitised token” means an electronic representation of a unit of value, rights or interests, whether or not encrypted on a distributed ledger or by some other technologies. Assets that are encrypted in such a way are called “crypto-assets”.²² Also, a currency-like²³ digital representation so encrypted is called a “cryptocurrency”, while the term “digital currency”, “digital coin” or “virtual currency” does not necessarily incorporate cryptographic technologies.²⁴ It is worth noting here that these terms are not exclusive of each other; the terms “token”, “asset” and “currency” are interchangeable in some cases.

In terms of taxonomy, a classification has gradually gained adoption which relies upon how a digital token is used. That is, digital tokens can be categorised as follows:

- asset tokens: digital tokens that represent rights to assets such as debt or equity claim on the issuer;
- utility tokens: digital tokens that entitle token holders to access applications or services on a specific network; and
- payment tokens: digital tokens that are used as a payment method to purchase goods or services such as fiat currencies.²⁵

Also worth noting is that some digital tokens have characteristics of more than one of the three, which are referred to as “hybrid tokens”. The following three sections examine regulations applicable to digital tokens using this categorisation.

Beyond the taxonomy is a fundamental identity question: are crypto assets a currency or a money? Recently, Lael Brainard, a member of the Board of Governors of the Federal Reserve System, declared:

“To assess the efforts by stablecoin issuers to provide the three functions of money, it is useful first to consider existing arrangements for the issuance, regulation, and transfer of money. Central bank money and commercial bank money are the foundations of the modern financial system. Central bank money is composed of physical cash and money held in deposits at a central bank. Central bank money is important for payment systems because it represents a safe settlement asset, allowing users to exchange central bank liabilities with confidence in their acceptance and reliability. In addition, central banks can play a critical role as providers of liquidity by lending central bank money at moments of stress.”²⁶

Asset tokens

Aside from legal characteristics, asset tokens have an extensive variation from mere tokenised tangible assets to digital representations of interests in various business schemes. In theory, there is no limitation on asset classes underlying digital tokens. It would follow that the applicable regulations depend upon facts and circumstances of a specific scheme represented by an

¹⁹ Exchange Act s.3(a)(1).

²⁰ Exchange Act s.3(a)(23)(A)–(B).

²¹ Exchange Act s.15(a)(1), (b)(1) for a broker and dealer; s.5 for an exchange; s.17A(b)(1) for a clearing agency.

²² European Securities and Markets Authority (ESMA) uses “crypto-asset” as referring to both “digital tokens” and “virtual currencies”, perhaps regardless of whether they are encrypted. See ESMA, *Advice: Initial Coin Offerings and Crypto-Assets*, ESMA50-157-1391 (9 January 2019), p.42. At least for the purpose of this article, however, either “digital tokens” or “virtual currencies” are not limited to encrypted ones because the relevant authorities in the US do not seem to use those words in such a sense, nor hold the cryptographic status determinative of regulations. Also, the term “digital” or “virtual” is not necessarily reminiscent of being encrypted. The definition of “virtual currency” by the European Central Bank seems similar to this position. See European Central Bank, *Virtual Currency Schemes* (October 2012), p.5.

²³ “Currency” within the definition under the Bank Secrecy Act requires the legal tender status which is a value that can be used as a means of settlement of debts or obligations. 31 C.F.R. s.1010.100(m). At present, no virtual currency is given such status. Here, the term virtual “currency” is used in a functional sense that some digital units are accepted as a medium of exchange.

²⁴ See, e.g. *Retail Commodity Transactions Involving Virtual Currency*, Federal Register Vol.82, No.243 (20 December 2017), p.60,335, p.60,338, fn.47.

²⁵ Securities and Markets Stakeholder Group, *Advice to ESMA: Own Initiative Report on Initial Coin Offerings and Crypto-Assets*, ESMA22-106-1338 (19 October 2018), pp.9–12; Swiss Financial Market Supervisory Authority, *Guidelines for Enquiries Regarding Regulatory Framework for Initial Coin Offerings (ICOs)* (16 February 2018), p.3. This classification was also adopted by American Bar Association, American Bar Association Derivatives and Futures Law Committee, Innovative Digital Products and Processes Subcommittee, Jurisdiction Working Group, *Digital and Digitized Assets: Federal and State Jurisdictional Issues*, pp.26–29. This article also follows it, except for including digital tokens that are not encrypted on a blockchain. Here, fiat currencies are assumed to be designated by a country to serve as a means of value transfers.

²⁶ Federal Reserve Governor Lael Brainard, *Digital Currencies, Stablecoins, and the Evolving Payments Landscape* (16 October 2019).

asset token. This section addresses how the SEC has applied the Securities Act and the Exchange Act to asset tokens.

The use of the term “token” is particularly confusing. Joined with fictitious representations of the bitcoin as a piece of money, it supports a promotion that was leading investors to believe that it is a currency. It misrepresented the nature or the identity of a bitcoin: Regulators have not challenged the use of tokens. The *Oxford Dictionary* definition emphasises that confusion: “A token is a round piece of metal or plastic used instead of money to operate some machines or as a form of payment”.²⁷

It is regrettable that the Federal Reserve denominated the bitcoin as an “alternative currency”, giving it a seal of approval that was, fundamentally, inexact.

Howey Test

The applicability of the Securities Act and the Exchange Act turns on whether a particular asset token falls under the definition of “security” under the Securities Act s.2(a)(1) and the Exchange Act s.3(a)(10). Tokens that share the characteristics of securities are called “security tokens”. There is no doubt that asset tokens representing a financial instrument enumerated in those sections are securities.²⁸ In more marginal cases, the SEC has long relied on the Howey Test, which refers to the standard established in the seminal Supreme Court decision in *SEC v WJ Howey Co.*²⁹ This test was established in 1946:

“In Howey, two Florida-based corporate defendants offered real estate contracts for tracts of land with citrus groves. The defendants offered buyers the option of leasing any purchased land back to the defendants, who would then tend to the land, and harvest, pool, and market the citrus.”³⁰

Using it in the context of digital assets is, at best, a stretch. The SEC must have been desperate to find an analogy.

The Howey Test is a criterion by which to determine whether a particular interest in a business is an “investment contract” under s.2(a)(1) of the Securities Act. Under the Howey Test, an interest is an investment contract if:

- investors invest money;
- a business funded by investors is a common enterprise; and
- investors have an expectation of profits solely derived from the efforts of others.³¹

The first prong, the investment of money, does not limit consideration to fiat currencies contrary to its language. It suffices as the investment of money that investors give up some tangible and definable consideration in return for an interest in a business.³² As such, usually a new business offering a digital token satisfies this prong. Is a bitcoin tangible? Is it definable?

The second prong, a common enterprise, generally has two ways to be met: (1) horizontal commonality; and (2) vertical commonality. The horizontal commonality means that a promoter holds pooled assets with respect to which multiple investors share risks and interests in common.³³ The vertical commonality, on the other hand, refers to a scheme in which an investor’s success is tied to the success or efforts of a promoter.³⁴ It further ramifies into (1) the broad vertical commonality which only requires profits of investors to be dependent upon the promoter’s efforts; and (2) the narrow vertical commonality which requires not only the dependence in the broad vertical commonality but also the linkage between fortunes of investors and those of the promoter.³⁵ Courts of appeal are significantly fragmented on whether to recognise either or both of the horizontal commonality and the vertical commonality and whether to accept the broad vertical commonality.

The Strategic Hub for Innovation and Financial Technology of the SEC (FinHub) recognises the second prong as an independent factor of the Howey Test but notes that a common enterprise usually exists in digital asset investments.³⁶

²⁷ *Oxford Learner’s Dictionaries*, “token” available at: https://www.oxfordlearnersdictionaries.com/us/definition/english/token_1#:~:text=%E2%80%8Ba%20round%20piece%20of,a%20parking%20token [Accessed 13 March 2021].

²⁸ See, e.g. Nomura Securities Co Ltd, “Nomura Contributes to Japan’s First Bond Offering Using Blockchain Technology” (Press Release 30 March 2020) available at: <https://www.nomuraholdings.com/news/nr/holdings/20200330/20200330.pdf> [Accessed 13 March 2021].

²⁹ *SEC v WJ Howey Co* 328 US 293 (1946).

³⁰ FindLaw, “What Is the Howey Test?” (2018) available at: <https://consumer.findlaw.com/securities-law/what-is-the-howey-test.html#:~:text=Background%20of%20the%20Howey%20Test&text=In%20Howey%2C%20two%20Florida%2Dbased,pool%2C%20and%20market%20the%20citrus> [Accessed 13 March 2021].

³¹ *Howey* 328 US 293, 298–299 (1946).

³² *International Brotherhood of Teamsters v Daniel* 439 US 551, 559–560 (1979).

³³ *Milnarik v M-S Commodities Inc* 457 F.2d 274, 276–277 (7th Cir. 1972) (denying a common enterprise where the success or failure of an investor does not affect that of other investors).

³⁴ *SEC v Sg Ltd* 265 F.3d 42, 49–50 (1st Cir. 2001).

³⁵ *SEC v Sg Ltd* 265 F.3d 42, 49–50 (1st Cir. 2001). See also *Revak v SEC Realty Corp* 18 F.3d 81, 87–88 (2d Cir. 1994). From a theoretical standpoint, the rationale of the narrow vertical commonality might be called into question. The protections given to investors as to securities under the Securities Act and the Exchange Act intends to grapple with the so-called agency problem—the promoter might pursue its own interests and act not in the best interest of investors. This agency problem is especially striking where there exists the horizontal and the broad vertical commonalities. That is to say, under the horizontal commonality environments, investors often fail to work together for a common good even with interests and risks shared in common because taking such an action is often expensive and investors disfavour free riders, which is called the “collective action problem”. Dependence upon the promoter under the broad vertical commonality, coupled with the collective action problem, justifies the registration and disclosure protections in order to prevent promoters from preying on investors taking advantage of the information asymmetry. The narrow vertical commonality, however, aligns promoter’s interests with investors’ by subjecting promoter’s compensation to the success of investors. Then, it rather incentivises the promoter to serve for investors and alleviates the agency problem. If so, exacting the narrow vertical commonality as a condition of investment contracts and, by extension, securities look somewhat inconsistent with the rationale behind the regulations.

³⁶ Strategic Hub for Innovation and Financial Technology of the SEC, *Framework for “Investment Contract” Analysis of Digital Assets* (3 April 2019) (hereinafter FinHub Framework), s.II.B. Since the FinHub Framework cites a precedent of the District of Columbia Circuit Court, it is not clear whether the FinHub supports the vertical commonality: s.II.B fin.11.

Finally, the third prong is the most important part of the Howey Test. The expectation of the profits solely derived from the efforts of others can break down into two parts: (1) the expectation of the profits; and (2) sole derivation from managerial efforts. As to the profits, it is well-established by the US Supreme Court that the profits not only include dividends of cash or in-kind out of earnings but also capital appreciation of the interests produced by the business.³⁷ An implication of this is that an increase of value solely from external market fluctuations, not business operations, does not constitute the profits within the meaning of the third prong of the Howey Test.³⁸ The FinHub also subscribes to this idea.³⁹ Another factor to be considered is the motives of investors to buy an interest in a business. The expectation of profits is denied when investors purchase interests to use or consume goods or services.⁴⁰ In the case of mixed motivations, the courts had long seemed to determine which of the motivations was secondary and incidental.⁴¹ Yet, recently, 9th Circuit of Court of Appeals found the expectation of profits even when it was appurtenant to a non-profit motivation, which looks somewhat incongruous with the precedents.⁴²

The second element of the third prong, the managerial efforts, has extended beyond the reach associated with the word “solely” as including the promoter’s efforts that are significant for success of the business.⁴³ It means the passive and minor contribution of investors to the success of an enterprise would not disqualify the managerial efforts for the third prong. Thus, the issue reduces to the extent to which the success of a fund hinges on managerial efforts. This calls for a fact-intensive inquiry.

The discussion that follows analyses how the Howey Test would apply to a variety of asset tokens.

Application of the Howey Test to asset tokens

According to the US Supreme Court and the SEC, the Howey Test is flexible rather than static in that it can accommodate itself to countless and variable schemes.⁴⁴ Asset tokens are not an exception. That being so, it would be helpful to refer to comparable precedents of traditional asset classes when applying the Howey Test to asset tokens. This section takes a look at the precedents of the Howey Test with regard to major business structures and asset classes.

Partnership interests (DAO Report)

“The SEC issued an investigative report in 2017 cautioning market participants that offers and sales of digital assets by ‘virtual’ organizations are subject to the requirements of the federal securities laws. Such offers and sales, conducted by organizations using distributed ledger or blockchain technology, have been referred to, among other things, as ‘Initial Coin Offerings’ or ‘Token Sales.’ Whether a particular investment transaction involves the offer or sale of a security—regardless of the terminology or technology used—will depend on the facts and circumstances, including the economic realities of the transaction.”⁴⁵

A partnership is a business arrangement devoid of legal personality under which members cooperate to achieve the objectives specified in partnership agreements, typically making and sharing profits from the business. While forms of partnership vary substantially, two generic ones are a general partnership where all partners actively participate in business decisions and a limited partnership where limited partners delegate business decisions to a general partner. In light of the third prong of the Howey Test, interests in a general partnership are not an investment contract as long as all members are actively involved in investment decisions.⁴⁶ In the same vein, an interest of a general partner in a limited partnership is not an investment contract. Meanwhile, limited partners rely on the general partner’s expertise for their success as a trade-off for limited personal liability, which usually satisfies the third prong.

These formulaic categorisations are plain and useful but not the end of the analysis. In the real world, the distinction between general partnership and limited partnership is sometimes blurry. The SEC and courts have tailored their analysis on a case-by-case basis while at the same time consistently prioritised economic reality over formality.⁴⁷ An exemplary case is The DAO, which stands for The Decentralized Autonomous Organization. The idea was to further disintermediated ecosystems on blockchain technologies in the corporate governance space; unlike a corporation, investors, not a board of directors, allegedly govern affairs of the organisation in a transparent and tamper-resistant manner. In 2017, the SEC released a lodestar report on The DAO against which to measure subsequent digital assets (DAO Report).⁴⁸

³⁷ *United Housing Foundation Inc v Forman* 421 US 837, 852–853 (1975); *SEC v Edwards* 540 US 389, 394 (2004).

³⁸ *Noa v Key Futures Inc* 638 F.2d 77, 79 (9th Cir. 1980).

³⁹ FinHub Framework (2019), s.II.C.2.

⁴⁰ *Forman* 421 US 837, 852–853 (1975).

⁴¹ *Forman* 421 US 837, 856–857 (1975); *Sg Ltd*, 265 F.3d 42, 54 (1st Cir. 2001).

⁴² *SEC v Hui Feng* 935 F.3d 721, 730–731 (9th Cir. 2019).

⁴³ *SEC v Glenn W Turner Enters* 474 F.2d 476, 482–483 (9th Cir. 1973).

⁴⁴ *Howey* 328 US 328 US 293, 299 (1946). SEC, *Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934: The DAO*, Exchange Act Release No.81207 (25 July 2017) (hereinafter DAO Report), p.11.

⁴⁵ SEC, “SEC Issues Investigative Report Concluding DAO Tokens, a Digital Asset, Were Securities” (2017) available at: <https://www.sec.gov/news/press-release/2017-131> [Accessed 13 March 2021].

⁴⁶ *Williamson v Tucker* 645 F.2d 404, 421 (5th Cir. 1981).

⁴⁷ *Forman* 421 US 837, 848 (1975); DAO Report (2017), p.15.

⁴⁸ DAO Report (2017).

The DAO was bundles of code on the Ethereum blockchain, devoid of legal capacity itself. Investors were connected based on contracts with the promoters and other investors. The structure of The DAO is as follows. One of the promoters, Slock.it and its co-founders, created a website of The DAO, made The DAO protocols, explained the future of The DAO, and answered to investors' questions as professionals of Ethereum.⁴⁹ The other promoter, Curators, was selected by Slock.it to vet the identity of an investor who proposed an investment opportunity, decide to submit the proposal to an investor vote, determine the order and frequency of proposals put for a vote, and adjust the quorum of a vote if necessary.⁵⁰ Investors purchased a token called DAO Token in exchange for Ether, a cryptocurrency issued on the Ethereum blockchain. DAO Token holders could put forth a proposal to invest in a certain opportunity, vote on proposals submitted by Curators, request to replace incumbent Curators subject to their own consent, transfer DAO Tokens on the Ethereum blockchain or other platforms, and redeem DAO Tokens for Ether.

The DAO Report found the first prong of the Howey Test, i.e. the investment of money and the second prong of a common enterprise.⁵¹ The main issue in holding DAO Token as a security was whether the managerial efforts of Slock.it and Curators were significant for the success of The DAO. If DAO Token holders were indeed in control of the affairs of The DAO, The DAO would have the nature of a general partnership. Conversely, if the success of The DAO rested on the promoters' managerial efforts, The DAO would look more towards a limited partnership or an "investment company", than a general partnership. The SEC tilted to the latter for the following reasons. The activities of Slock.it and its co-founders led investors to believe that they would commit to providing substantive supports to make The DAO succeed. Slock.it and Curators, indirectly or directly, exercised control over investment proposals on which DAO Token holders could vote even based on their subjective criteria. Also, the replacement of the current Curators would not happen if they themselves decided not to submit their own dismissal proposals for a DAO Token holder vote. Thus, considering (1) that DAO Token holders' voting right was perfunctory; and (2) that DAO Token holders were widely dispersed and limited in their ability to communicate with one another, DAO Token holders did not have meaningful control over the enterprise.⁵²

Importantly, the reasoning of the SEC faithfully adheres to the rationale behind the protections as to securities under the Securities Act and the Exchange Act. Purchasers of securities entrust their capital and delegate decisions on its usage to an issuer, being deprived of control over it. Nevertheless, they are to bear the risk of loss in the case of failure on the issuer's part. This shows the necessity of disclosure about risks and structures related to securities in order to secure informed decisions of investors. The two factors mentioned by the SEC, namely meaningless control and dispersion, are aligned with this view. First, the SEC made a point that DAO Token holders could not be involved in the clearing process of Curators over which proposal from DAO Token holders should be submitted to a vote.⁵³ Nor did they receive sufficient information to make informed voting decisions on the submitted proposals or even negotiate their terms.⁵⁴ These facts show the existence of asymmetry with regard to both information⁵⁵ and decision-making power, suggestive of investors losing their control over their funds. Moreover, what aggravated this gap was the collective action problem—investors are reluctant to take costly actions for a public good against free riders. Pseudonymity and dispersion of the DAO Token holders, the SEC argued, made it difficult for them to join together to exercise meaningful control over the promoters.⁵⁶

The DAO Report revealed the SEC's stance on digital assets that the economic reality prevails over forms and labels developers assign to them. This is consistent with jurisprudential precedents. Some circuit courts have denied blanket exclusion of interests in a general partnership from securities and particularly stated the following three exceptions inferring dependence of investors on the promoter's efforts:

- participants have such restricted power as would be given in a limited partnership;
- participants are not experienced or knowledgeable enough to exercise their powers intelligently; or
- participants are dependent on the promoter's unique entrepreneurial or managerial abilities.

These exceptions can be seen as an itemisation of the factors considered in the DAO Report such as the token holders' perfunctory voting rights and the promoters' holding themselves out as experts.

⁴⁹ DAO Report (2017), p.12.

⁵⁰ DAO Report (2017), p.13.

⁵¹ DAO Report (2017), p.11.

⁵² DAO Report (2017), p.14.

⁵³ DAO Report (2017), p.14.

⁵⁴ DAO Report (2017), p.14.

⁵⁵ Noted that information asymmetry has two aspects here despite both between a promoter and investors. One is assumed to exist as of the time of purchasing securities which justifies the registration and disclosure requirements under the Securities Act and the Exchange Act. The other is to measure the extent of investors' control within the context of the third prong of the Howey Test. That is, contractual rights of investors such as voting rights do not substantiate their control over an enterprise if information asymmetry denies them access to sufficient information. This information asymmetry is case-specific and can exist throughout the life of the scheme insofar as a scheme is subject to securities regulations. See, e.g. *SEC v Merchant Capital, LLC* 483 F.3d 747, 758–759 (11th Cir. 2007); *SEC v Shields* 744 F.3d 633, 643–645 (10th Cir. 2014) (both cases indicating that the lack of access to sufficient information could render investors' rights meaningless).

⁵⁶ See fn.55 above. See also *Williamson* 645 F.2d 422, 424 (5th Cir. 1981) (suggesting as large numbers of general public hold partnership interests, the partnership get close to a corporation).

Enumerated securities

Some asset tokens are mere tokenisation of an asset belonging to traditional asset classes.⁵⁷ If an underlying asset is listed under s.2(a)(1) of the Securities Act and s.3(a)(10) of the Exchange Act, there is no reason to differentiate legal characters only on account of digitisation. It is not even a matter of the Howey Test because it only applies to investment contracts, not the other enumerated securities, provided for “instrument commonly known as a ‘security’”.⁵⁸ Rather, the issue concerning listed securities is sometimes whether a financial instrument that appears or is denominated one of the enumerated securities does not in fact share attributes of securities. What follows are brief summaries of precedents for major equity and debt securities: stock and note.

In *Forman*, the US Supreme Court examined economic realities of an instrument denominated “shares of stock”.⁵⁹ Purchasers of the shares of stock were to acquire an apartment but could not transfer the shares to those who did not have a room in the apartment.⁶⁰ They had only one vote irrespective of the number of shares they held and were forced to sell the shares back to the issuer at the initial selling price when terminating their occupancy.⁶¹ The court held that in such a circumstance the share of stock was not a security because it lacked typical characteristics of a stock: the right to dividends, appreciation in price, the proportionate voting right etc.⁶² Thus, the formality of a stock may be disregarded for substance.

With respect to notes, the US Supreme Court has adopted a specialised test called the “family resemblance test”.⁶³ Starting from a presumption that any note is a security, the presumption will be rebutted by showing a strong resemblance to traditional non-security notes, e.g. notes delivered in consumer financing, short-term notes secured by a lien on a small business or some of its assets, or a note which simply formalises an open-account debt incurred in the ordinary course of business, to name a few.⁶⁴ The strong resemblance can be inferred in terms of the following four factors:

- motivations, i.e. whether a seller raises money for the general use or for substantial investments and whether buyers primarily expect the profit from the note;

- plan of distribution to determine there is common trading for speculation or investment;
- reasonable expectations of the investing public; and
- another regulatory scheme significantly reducing the risk of the instrument.⁶⁵

The more strongly a financial instrument denominated “note” shares these four attributes, the more likely it will fall outside the ambit of notes as securities due to the strong resemblance to commercial notes. Most likely, such an instrument would be regulated by another law and issued for general commercial use to investors expecting to hold to maturity for the purpose of fixed interest income.

This is another example of the attempt to regulate “assets” by using analogy, i.e. in this case resemblance. As a provisional solution, it is perfectly understandable but the risks of using such subjective criteria could lead to a flurry of assets that benefit from the endorsement of a regulation.

Real estate

Real estate is not on the list of securities under the Securities Act and the Securities Exchange Act. It does not mean, however, real estate is free of scrutiny by the Howey Test. Once a promoter packages future cash flows from real estate into a bundle of rights and offers them to the general public, such rights may very well be an investment contract.⁶⁶ For instance, the SEC recently charged a promoter in relation to an issuance of a security token which included real estate and diamonds.⁶⁷ Also, in the first place, the *Howey* case itself involved transfer of real estate.

In *Howey*, the Howey Company offered its tracts of citrus acreage for sale on a condition that purchasers would enter into both the land sales contract and the service contract.⁶⁸ The land sales contract gave purchasers the ownership of a specified acre of land, but at the same time the service contract restricted the usage of the land to giving Howey-in-the-Hills Service Inc a leasehold interest to cultivate citrus trees.⁶⁹ The Howey group ran the citrus grove development business in its own name, pooled productions to which the purchasers had no right, and distributed profits out of citrus fruits to the purchasers.⁷⁰ As stated in the section titled “Howey Test”

⁵⁷ See Nomura Securities Co Ltd, “Nomura Contributes to Japan’s First Bond Offering Using Blockchain Technology” (2020). For example, tZERO provides platforms for trading tokenised securities, see tZero webpage available at: <https://www.tzero.com/digital-securities> [Accessed 13 March 2021].

⁵⁸ *Forman* 421 US 837, 851–852 (1975).

⁵⁹ *United Housing Foundation Inc v Forman* 421 US 837 (1975).

⁶⁰ *Forman* 421 US 837, 842–843 (1975).

⁶¹ *Forman* 421 US 837, 842–843 (1975).

⁶² *Forman* 421 US 837, 851 (1975).

⁶³ *Reves v Ernst & Young* 494 US 56, 64–65 (1990).

⁶⁴ *Reves v Ernst & Young* 494 US 56, 64–65 (1990).

⁶⁵ *Reves v Ernst & Young* 494 US 56, 66–67 (1990).

⁶⁶ *Guidelines as to the Applicability of the Federal Securities Laws to Offers and Sales of Condominiums or Units in a Real Estate Development, Securities Act*, SEC Release No.5347 (4 January 1973), p.2.

⁶⁷ SEC, “SEC Exposes Two Initial Coin Offerings Purportedly Backed by Real Estate and Diamonds”, No.2017-185 (Press Release, 29 September 2017).

⁶⁸ *Howey* 328 US 293, 294–297 (1946).

⁶⁹ *Howey* 328 US 293, 294–297 (1946).

⁷⁰ *Howey* 328 US 293, 294–297 (1946).

above, the Supreme Court set out the Howey Test to determine that the combination of the land sales contract and the service contract constituted an investment contract.

Aside from the introduction of the Howey Test, the point being in respect of real estate is that each purchaser held the sole ownership of real estate. In general, landowners are not thought of as holding securities even if they retain a management company to manage their lands or lease a company their lands. Yet, in *Howey*, despite the leasehold appearance, the court did not view it important since the transfer of the land ownership was “purely incidental” to forming a common enterprise of citrus grove.⁷¹ Here again, the formality of the land ownership and lease contract was outweighed by the economic realities such that the Howey group was in control of the citrus grove business as an expert and that the purchasers relied upon its expertise, expecting the upside opportunity.

The general rule that substance prevails over formality in application of the Howey Test holds for real estate transactions.⁷² Although this rule is likely to work in the affirmative when determining a particular instrument as security, it militates in both ways in real estate transactions because purchasers of real property often occupy it by themselves or exercise control over how it is utilised. A good example is an interest in time-share condos. Courts and the SEC will likely find a security if condo owners retain an agent company to arrange rentals between customers and the owners and pool income from the rentals in which the owners are entitled to shares.⁷³ In contrast, a security would not be found if owners use their condos by themselves or if, even in the case of a rental through an agent company, rental income is not pooled and fixed independent of other owners.⁷⁴

Attempts to tokenise real estate are still in their early days.⁷⁵ Tokenisation enables fractionising possession of real estate and forging co-ownership among investors who do not know each other. It paves the way for those who were previously foreclosed from real estate market to invest in real estate with a moderate amount of contribution. On the flip side, co-ownership of real estate among retail investors who disperse around the world itself may be indicative of a need of help by a promoter or manager to decide how to manage the real estate. Then such fractional ownership would likely trigger the regulations on securities.

This raises the question whether the token is a security by itself or a derivative of an asset. Should tokens be treated as such, it is unclear whether the SEC would have

a jurisdiction on a derivative of an asset that is not a security or whether real estate tokens should be regulated by the CFTC as the derivative of an asset that is not an equity. We need to remember that the SEC is only competent for options on securities (bonds or shares) and not futures on other types of assets.

Commodity and commodity derivatives

As with real estate, commodity or commodity derivatives are not on the list of securities. Nor does merely tokenising a single commodity or commodity derivative turn them into securities. That said, the Howey Test still applies. As is usually the case, the third prong—the expectation of profits derived from substantial managerial efforts—takes centre stage in applying the Howey Test. Among a wide range of commodities, gold—which is an exempt commodity—is fertile in opinions and guidance of the relevant authorities. For example, the SEC issued its opinions that the storage service of gold does not constitute the substantial managerial efforts upon which investors rely for their benefits and that the economic benefits from gold price fluctuations are not due to managerial efforts.⁷⁶ The SEC recently reaffirmed this view in the context of digital assets, implying that a right to redemption of a digital asset at the then market price of the underlying good does not infer “reasonable expectation of profits”.⁷⁷

Implicit in the opinion of the SEC is that two factors could have an impact on the opinion: the number of underlying commodities and the roles of promoters. The more variety of commodities a fund includes in its portfolio and the more roles a promoter takes on, the more likely an interest in the fund would satisfy the Howey Test. In a fund holding multiple commodities, it would be difficult for a subscription agreement to specify what kinds and amounts of commodities the fund holds at any given time. Therefore, the promoter tends to exercise considerable discretion in such matters beyond providing the ministerial storage service. The then-director of the Division of Corporation Finance of the SEC made a remark consistent with this view that bitcoin would create a security once put in a fund or trust, though bitcoin itself is not a security but a commodity.⁷⁸

Two caveats are worth noting with respect to commodities and commodity derivatives. First, among the three categories of commodities, i.e. agricultural commodity, excluded commodity, and exempt commodity, some of the excluded commodities are securities, in which case tokenisation of such excluded

⁷¹ *Howey* 328 US 293, 300 (1946).

⁷² See, e.g. *Hocking v Dubois* 839 F.2d 560 (9th Cir. 1988).

⁷³ See *Guidelines as to the Applicability of the Federal Securities Laws to Offers and Sales of Condominiums or Units in a Real Estate Development, Securities Act* (1973), p.2; *Hocking v Dubois* 839 F.2d 560 (9th Cir. 1988).

⁷⁴ *Wals v Fox Hills Dev Corp* 24 F.3d 1016 (7th Cir. 1994).

⁷⁵ For example, Meridio Inc provides a platform for participants to digitise their real estate shares and trade them (see “Meridio Integrates Maker’s Dai Stablecoin” (2019) available at: <https://blog.makerdao.com/meridio-maker/> [Accessed 12 April 2021]).

⁷⁶ Commission Announcement, “Commission Issues No-Action Position Relating to Certain Offerings of Gold, Securities Act and Exchange Act”, Issue 74-250, SEC Docket Vol.5, No.19 (27 December 1974), p.1.

⁷⁷ FinHub Framework (2019), s.II.C.2-3.

⁷⁸ William Hinman, Director of Division of Corporation Finance, “Digital Asset Transactions: When Howey Met Gary (Plastic)” (SEC, 14 June 2018) (hereinafter Hinman Speech) (transcript available at: <https://www.sec.gov/news/speech/speech-hinman-061418> [Accessed 13 March 2021]).

commodities simply creates digitised securities. Secondly, the Securities Act and the Exchange Act provide intricate distinctions between commodity derivatives and security-based derivatives, which affects an apportionment of authority between the SEC and the CFTC, occasionally creating joint authority. In such case, aside from whether a particular derivative is security-based or commodity-based, promoters have to pay attention to regulations set forth by both the SEC and the CFTC.

When it comes to joint authority, a unique area of dispute may be gold ETFs. ETF is short for exchange-traded fund and a pooled investment vehicle typically aimed at tracing price movements of a specific asset or a group of assets or outperforming indices. As with mutual funds, most ETFs are regulated under the Investment Act but, unlike mutual funds, do not provide investors with a right to daily redemption at the net asset value. Generally speaking, ETFs offer lower transaction costs and more tax efficiency than mutual funds. By investing in ETFs, investors can obtain exposures to a specific asset or a basket of assets that were previously too expensive for a single retail investor to obtain by directly investing. In the past, there had been a jurisdictional battle over gold ETFs, and at the end of the day, the CFTC held gold ETFs as securities and admitted the jurisdiction of the SEC.⁷⁹ Hence, although an ETF is not listed under the Securities Act s.2(a)(1) and the Exchange Act s.3(a)(10), it is now common knowledge that shares in gold ETFs are a security. Possible categories applicable to ETFs within the enumerated securities are “investment contract” and “any interest or instrument commonly known as a ‘security’”. In either case, the Howey Test is supposed to apply according to the Supreme Court.⁸⁰ However, it seems that at least with ETFs, the categorical conclusion passes for — any shares in any ETF is a security.⁸¹

How could such categorical conclusion be congruous with the Howey Test exacting a fact-orientated investigation? In most cases, ETFs will reasonably satisfy the Howey Test. In index-tracking ETFs, promoters undertake to trace price movements of a specified index and when the net asset value of an ETF deviates from the index, try to arbitrate the difference. Such managerial tasks would be sufficient to meet the third prong of the Howey Test. If so, all the more so with actively managed ETFs which aim to outperform indices. Then, how about gold-tracking ETF products? Tracking strategies may vary even within gold ETFs, such as holding physical gold and investing in stocks of gold mining companies. Among them, the focus here is on ETFs holding physical gold. By holding only physical gold in its portfolio, the net asset value of an ETF traces price changes of gold in the market exactly, except that the fees charged by the

promoter might negatively affect the net asset value. Therefore, in the case of gold-tracking ETFs, the managerial services might be similar to storage services which, as stated above, are held insufficient as managerial efforts within the meaning of the third prong of the Howey Test.⁸² This seeming conflict can be understood in two ways. The first is to think ETFs are immune from the Howey Test as a categorical security, notwithstanding that the Supreme Court applies the Howey Test to commonly-known securities. The second is to somehow differentiate the managerial services in gold-tracking ETFs from the storage services, though it is not certain if such differentiation is possible with all gold-tracking ETFs. As will be seen, this might have an impact on whether so-called gold stablecoins are a security.

Implications of tokenisation on the Howey Test

As thus far described, the SEC does not treat tokenised assets as a totally new instrument but rather tends to frame them within the pre-existing regulatory ecosystem: the Howey Test. On top of that, as the DAO Report indicates, the SEC closely looks to the extent to which investors have control over a common enterprise in substance. As a result, The DAO was not deemed a truly decentralised autonomous organisation with lower cases “d”, “a” and “o” but an organisation centralised at the point of the promoters. One factor considered in determining the extent of investors’ control was the dispersion of investors. This might have a negative impact on many blockchain-based products aimed at decentralisation. That is, one innovative aspect of blockchain technologies is said that it allows for cross-border business arrangements among untrusted parties.

According to the SEC, those arrangements cannot rely significantly upon a third party in order to skirt securities regulations. It might be uncertain, however, how practical it is for untrusted parties connected only based on pseudonymous identity to actively cooperate for a business purpose, thus running a risk of unlimited personal liability possibly resulting from negligence of other partners. If such cooperation only makes scant sense, it would follow that many business arrangements built on a blockchain, though innovative in a business sense, would largely come with the burden of the regulations as securities, irrespective of underlying asset classes.

The question of the policy objectives of the SEC deserves serious attention. Did the regulator attempt to cover its net widely at the risk of relying on a test that never applied to this type of asset?

⁷⁹ Philip McBride Johnson, Invited Editorial, “The CFTC and commodity-based exchange-traded funds” in *Derivatives Use, Trading & Regulation* (1 February 2006), Vol.11, p.306.

⁸⁰ *Forman*, 421 US 837, 851–852 (1975).

⁸¹ SEC, *Investor Bulletin: Exchange-Traded Funds (ETFs)* (10 August 2012), p.3.

⁸² Commission Announcement, “Commission Issues No-Action Position Relating to Certain Offerings of Gold, Securities Act and Exchange Act” (1974) p.1.

Utility tokens

Utility tokens are another type of digital asset where token holders are granted access to services and applications deployed on a network. In the early days when the concept “utility token” came into use, developers expected that utility tokens would deserve treatment as a consumable, to wit: non-security. The ground on which they rested was that investors were assumed to consume utility tokens to buy goods or services on a network, not holding them in the long run with the expectation of profits. The hope for favourable treatment was frustrated when the SEC Chairman, Jay Clayton, showed his scepticism by emphasising utility characteristics as a cloak for issuing securities.⁸³ With respect to utility tokens, it seems that neither the CFTC nor the FinCEN has specifically opined on their position so far. This section addresses the implications of utility function on the five laws.

As we enter into this field, the “underlying” asset or “cash flow” becomes stretched to its widest and least specific definition. There is a systemic risk for the SEC to cover utility tokens under the Securities Act. It could capture it under the Exchange Act.

SAFT

One of the most distinctive characteristics of utility tokens is a gradual process. For instance, projects called token curated registries aim to establish a decentralised network providing trustworthy lists of whatever users are interested in such as restaurants, movies and recommended household products.⁸⁴ At the inception of a token-curated registry, there is of course no list to see. As more candidates want to be listed and more consumers view lists on the network, the more the network gains adoption and builds trust, which increases the value of a token issued on the network. Given such a piecemeal development, instances could arise where investors intend to hold a token until the underlying network develops and the value of the token appreciates, after which they resell the token in the secondary market. If the development of the network rests on efforts of the promoter, it appears that the initial token issuance before a network starts to function is a securities offering pursuant to the Howey Test.

To avoid triggering the registration and disclosure regulations under the Securities Act, Protocol Labs and law firm Cooley jointly published a White Paper titled *The SAFT Project: Toward a Compliant Token Sale Framework* in 2017.⁸⁵ The SAFT, short for simple agreement for future tokens, was devised to comply with the securities regulations while lowering costs concerning token issuances. The SAFT consists of the following four steps⁸⁶:

- Step 1: Developers incorporate a Delaware corporation and pitch accredited investors within the meaning of r.506(c) of Regulation D.
- Step 2: Developers and accredited investors enter into a SAFT complying with r.506(c) of Regulation D. The SAFT grants a contractual right to receive a token issued in the future and typically provides a discount on the token.
- Step 3: The Delaware corporation, funded by the accredited investors, invests the proceeds to develop a network into a product that offers the utility function.
- Step 4: The Delaware corporation launches the network and delivers the tokens to the accredited investors, which, in turn, enables them to put the tokens into circulation through token resales.

The gist of the SAFT is to distinguish investors’ rights under a SAFT agreement from the token issued under the SAFT agreement after the network development. By delaying the delivery of a token until a network metamorphoses from an investment contract with profit potential into genuine utility, it is argued that at no point in time does the token fall under a security.⁸⁷ As respects some investors who plan to resell tokens to the public for profit, the SAFT proposal alleges the third prong of the Howey Test will not be met so long as essential managerial efforts to develop a network are already expended before the token delivery; the price of the tokens will fluctuate depending upon various factors other than managerial efforts.⁸⁸

The SEC agilely reacted to the SAFT proposal only about two months later.⁸⁹ Jay Clayton, Chairman of the SEC, clarified that offering some utility would not

⁸³ Jay Clayton, Chairman of the SEC, “Statement on Cryptocurrencies an Initial Coin Offerings” (11 December 2017) available at: <https://www.sec.gov/news/public-statement/statement-clayton-2017-12-11> [Accessed 13 March 2021] (hereinafter Clayton Statement).

⁸⁴ See, e.g. Kensuke Ito and Hideyuki Tanaka, “Token-Curated Registry with Citation Graph” (5 June 2019) available at: <https://arxiv.org/pdf/1906.03300.pdf> [Accessed 13 March 2021]. Token-curated registry projects are motivated to replace list or catalogue platforms managed by a handful of tech giants which traces individuals’ research records and sorts information along their interests. An assumption of token-curated registries is that lists become more reliable where users with the voting right on which candidates should be included in or excluded from a list are incentivised to vote reasonably based on the quality of candidates. Token-curated registries are supposed to achieve this incentivisation by distributing tokens to users who have voted on the majority side—voters consider how the majority of them will vote and try to follow suit.

⁸⁵ Juan Batiz-Benet, Jesse Clayburgh and Marco Santori, *The SAFT Project: Toward a Compliant Token Sale Framework* (White Paper, 2 October 2017) available at: <https://safproject.com/static/SAFT-Project-Whitepaper.pdf> [Accessed 13 March 2021] (hereinafter SAFT White Paper).

⁸⁶ SAFT White Paper (2017), pp.16–17.

⁸⁷ Even though developers have to follow r.506(c) of Regulation D when concluding a SAFT, it is to expire and terminate on the delivery of tokens. That is to say, if the SAFT proposal worked out, no ongoing disclosure or filing as to the SAFT would be needed thereafter. Moreover, if the tokens issued were not a security according to the SAFT proposal, either the initial or ongoing disclosure would not be required. Thus, the SAFT arrangement, in its assumption, would be much more cost-effective.

⁸⁸ SAFT White Paper (2017), p.17.

⁸⁹ Clayton Statement (2017), p.83.

disqualify a token for securities.⁹⁰ Rather than utility, what was given much weight was whether solicitation of investors alluded to a secondary market where token purchasers could resell the tokens to lock in the price appreciation.⁹¹ At the root of the statement is that such solicitation fosters the expectation of profits not on the part of SAFT holders but on the part of prospective token holders, denying the manipulation of the timing of the token delivery purportedly affecting the character of the token in the SAFT proposal.⁹²

This example shows the limits of the Howey Test whose definition has been so widely stretched that it allows almost everything to become SEC-regulated. A token on a right is a combination of a derivative on future earnings. It looks more like a CFTC “asset” than an SEC “object”.

Gram token

SEC v Telegram Group Inc is a recent seminal case of the SAFT.⁹³ In *Telegram*, the District Court for the Southern District of New York aptly adjudicated a case of the SAFT in favour of the SEC halting the circulation of a digital token named “Gram token”. *Telegram* would be a landmark case to which future cases would refer to deal with the SAFT.

Telegram Group Inc raised funds through a SAFT from sophisticated investors in order to launch a blockchain-based network named Telegram Open Network. On the network, the company was going to offer a range of services and products gradually: storage, payments, wallets, physical goods, and an app store, to name a few. Gram tokens were intended to be used for those services and supposed to be delivered on the launch of Telegram Open Network. SAFT holders would have been able to consume Gram tokens to purchase goods or services on the network or resell them on a secondary market after a lock-up period once Gram tokens had been delivered in accordance with the SAFT agreement. The SEC, considering Gram token as a security, enjoined Telegram Group Inc from distributing Gram tokens.

In the course of concluding that the Howey Test was satisfied, the court clarified a few touchstone principles in applying the Howey Test. First, as with bitcoin, a decentralised community on a blockchain administered by users rather than a common enterprise is not a security.⁹⁴ This is consistent with the remarks by William Hinman, Director of Division of Corporation Finance of the SEC,⁹⁵ in that the character of a digital token may change by the passage of time. A slight difference is that

the court implied that a truly decentralised community failed the second prong, namely, a common enterprise, whereas the remarks of Hinman pointed to the third prong—in a sufficiently decentralised network, no entity would take on essential managerial efforts to live up to investors. Secondly, when determining an intent of token purchasers, the criterion is how reasonable investors objectively see the token, not a subjective belief of some purchasers.⁹⁶

Thirdly, and most importantly, referring to the language in *Howey* defining an investment contract as “a contract, transaction or scheme”,⁹⁷ the court held that the scrutiny would not target only Gram token itself but encompass an entire “scheme” comprising a bundle of contracts and expectations surrounding the sales and distribution of Gram token (Entire Scheme Standard).⁹⁸ This Entire Scheme Standard resulted in advancing the point in time at which to evaluate the whole scheme of Gram from the date of token delivery to the date of the SAFT.⁹⁹ Although the impact of this portion on offering practices still remains to be seen, it might doom the SAFT proposal. The court decidedly turned down evaluating separately the contractual right to receive tokens under a SAFT and delivery of the tokens to the extent that purchasers and promoters shared a goal of the scheme in mind at the time of the SAFT. A common perception about the entire scheme would be in most cases forged before a SAFT through disclosure because, if not, such elliptical disclosure infers a breach of the disclosure obligation in offering the SAFT as a purported security. Hence, merely delaying delivery of a token would not likely work out.

Compounding the issues at hand might be another portion of the judgment. In gauging the significance of managerial efforts, the court attached weight to the fact that if Telegram Group Inc ceased supporting Telegram Open Network on its launch, Gram token would not gain broad adoption, which implied purchasers’ dependence on the promoter’s efforts.¹⁰⁰ Then, what if a network is sufficiently autonomous to dispense with any managerial effort as of its launch? If such a pre-autonomous network rendered managerial efforts insubstantial in light of the third prong, it would mean Telegram Group Inc simply misjudged the timing of the launch. If that were the case, the SAFT proposal might well have a narrow escape; that is, the SAFT would have functioned as designed had Telegram Group Inc waited until Telegram Open Network became fully decentralised. However, it might not be the case. A corollary of the Entire Scheme Standard which evaluates a whole scheme at the time of a SAFT is to count managerial efforts during the pre-launch period as

⁹⁰ Clayton Statement (2017), p.83.

⁹¹ Clayton Statement (2017), p.83.

⁹² See also, Hinman Speech (2018), fn.15 (showing reluctance to render some special treatment for the SAFT and sticking to the principle to see economic realities).

⁹³ *SEC v Telegram Group Inc* (SDNY 24 March 2020) available at: <https://law.justia.com/cases/federal/district-courts/new-york/mysdce/1:2019cv09439/524448/227/> [Accessed 13 March 2021].

⁹⁴ *Telegram Group* (SDNY 24 March 2020) at 2.

⁹⁵ Hinman Speech (2018).

⁹⁶ *Telegram Group* (SDNY 24 March 2020) at 25.

⁹⁷ *Howey*, 328 US 293, 298–299 (1946).

⁹⁸ *Telegram Group* (SDNY 24 March 2020) at 38–39.

⁹⁹ *Telegram Group* (SDNY 24 March 2020) at 38–39.

¹⁰⁰ *Telegram Group* (SDNY 24 March 2020) at 32.

well as the post-launch period. To sum up, even when a promoter decamps from a fully decentralised network on its launch, a token on the network may still pass the Howey Test, where the managerial efforts to make the pre-launch network functional and fully decentralised are essential for value appreciation of the token.

Aside from the abstract principles, the factors considered for the third prong are also of importance. The fact in controversy was the motivation of reasonable SAFT purchasers to fund the Telegram Open Network project. Telegram Group Inc pled a consumptive intent while the SEC asserted an investment intent. The court inferred an investment intent based on a couple of structural features common in the SAFT. First, a discount to the token issued on launch of the network would offer an opportunity to reap the profits by resale on a secondary market.¹⁰¹ Since the SAFT scheme usually carries a discount to initial purchasers as an incentive, a consumptive intent will be less likely found even if the launch is after full decentralisation. Secondly, the promoter would have authority to adjust supply and demand of Gram token to arrest a decline in its price.¹⁰² It would secure initial purchasers of opportunities to profit from resales. In the case of a consumptive intent, it could be said that there would be less of a need to care about the dollar-denominated value of a token because token holders were to consume tokens on token-denominated services on a network. Thirdly, a lock-up period of up to 18 months militated for an investment intent.¹⁰³ The court interpreted the lock-up period as a trade-off for whopping gains from resales.

Last but not least, the court revealed its position on how to determine if purchasers were an “underwriter” within the context of the SAFT.¹⁰⁴ An “underwriter” is defined as a purchaser from an issuer with a view to distributing any security.¹⁰⁵ The existence of an underwriter is contradictory with private placements under which securities will supposedly rest with only initial purchasers; therefore, r.506(c) of Regulation D, as one type of private placement, requires an issuer to assure with reasonable care that purchasers are not underwriters.¹⁰⁶ That said, it would be an undue burden to impose on issuers a duty to prove a lack of an intent to distribute securities to the public. Against this backdrop, a safe harbour is provided whereby issuers may assure that purchasers are not underwriters by prohibiting the transfer of securities for one year.¹⁰⁷ In *Telegram*, as the SAFT scheme premises r.506(c) of Regulation D at

the time of offering a SAFT, there was a more than one year interval between the date of the SAFT and the date of launch.¹⁰⁸ The court, nevertheless, found that the initial purchasers were underwriters.¹⁰⁹ It indicates the one-year period of transfer restriction runs from the token delivery, even though the Entire Scheme Standard, which evaluates the entire scheme at the time of a SAFT instead of the token delivery, seemingly is directed to the date of the SAFT as the commencement of the one-year period. Measured from the launch date, it would have been only three months before the initial purchasers would be able to resell part of their Gram tokens on a secondary market. Accordingly, the initial purchasers were held to be underwriters, which made the Gram scheme as a whole ineligible for r.506(c) of Regulation D.

As elaborated above, the court in *Telegram* provided a legal framework along which to analyse SAFT cases and almost negated the SAFT proposal as a means to ward off securities regulations. The SAFT scheme now seems to be in the hot seat because of the Entire Scheme Standard. It does not flow from *Telegram*, however, that the intertemporal character of utility tokens has no effect on the Howey Test. In fact, the SEC came to recognise gradually the impacts of passage of time.

FinHub Framework

In 2018, William Hinman, Director of Division of Corporation Finance of the SEC, mentioned in his speech that bitcoin is, at least now and perhaps from the outset, a non-security, and that Ethereum, putting aside the initial fundraising to create Ether, is at least now a non-security.¹¹⁰ The subtle difference in the way he referred to the status in their early days derived from the fact that Ether was initiated by a single non-profit organisation Ethereum Foundation, whereas there was no such entity on the bitcoin blockchain. He based his opinion on a theory that as a network becomes more decentralised, users will eventually rely less on a third party’s efforts, which renders the disclosure under the Securities Act of little value. The theory was to be furthered by FinHub in its cornerstone framework in 2019.¹¹¹

The framework, as a general matter, confirms that managerial efforts are more likely to be essential when the development of a network or digital asset is still halfway through since purchasers would reasonably expect the promoter to be responsible for the development.¹¹² Speaking of possible changes in the legal

¹⁰¹ *Telegram Group* (SDNY 24 March 2020) at 25–26.

¹⁰² *Telegram Group* (SDNY 24 March 2020) at 26.

¹⁰³ *Telegram Group* (SDNY 24 March 2020) at 27.

¹⁰⁴ *Telegram Group* (SDNY 24 March 2020) at 41–43.

¹⁰⁵ Securities Act s.2(a)(11).

¹⁰⁶ Securities Act s.230.502(d).

¹⁰⁷ Securities Act s.230.144(a)(3)(ii), (d)(1)(ii).

¹⁰⁸ If the SAFT scheme worked as designed, the length of the interval might not matter in such a case where the contractual right under a SAFT, which was a security, terminated before one year had passed.

¹⁰⁹ *Telegram Group* (SDNY 24 March 2020) at 42.

¹¹⁰ Hinman Speech (2018).

¹¹¹ SEC, *Framework for “Investment Contract” Analysis of Digital Assets* (3 April 2019) (hereinafter *FinHub Framework*), s.II.B.

¹¹² *FinHub Framework* (2019), s.II.C.1.

characterisation over time, re-evaluation of a digital asset that was initially a security may ensue when the following non-exhaustive factors exist¹¹³:

- purchasers no longer expect any active participant to develop the network for the purpose of value appreciation of the digital asset;
- the value of the digital asset constantly has a positive correlation with the value of the goods and services on the network;
- the amount of the digital asset in active circulation reflects demand of the goods and services on the network;
- purchasers can actually consume the digital asset to buy the goods and services on the network;
- the appreciation in the value of the digital asset, if any, is incidental to the functional usage; and
- no material inside information is available for any active participant.

To be clear, the re-evaluation is different than the SAFT proposal in that a token is offered as a security even before it comes to function consumptively and eventually transforms into a non-security utility token. The framework gives an example of an online retailer to show a sufficient condition for a token to fit squarely with a true utility token. The factors considered are¹¹⁴:

- a network is fully developed and operational;
- the retailer intends a token to be used solely for purchasing products only on the network;
- the token is sold for real currency and redeemable for products on the network of the same value;
- the retailer advertises the token as a payment method but is not prohibited from rewarding customers with the tokens depending on their purchase records;
- purchasers can consume the tokens immediately after receiving them; and
- the tokens are not alienable such that purchasers only consume them on transactions with the retailer or redeem them for a discount on the purchase price.

For now, it is not certain which factor outweighs the others. Presumably, among others, the last factor would be a bottleneck of promoters but, at the same time, draw

concerns of the SEC. It seems to be of greater concern of the SEC that a digital asset is put into public circulation with no formal filing as a security with the SEC. Be that as it may, non-transferability cannot be a safe harbour. The framework alerts promoters to an additional reservation. It would tip in favour of securities transactions to offer purchasers a discount for goods or services or offer tokens in quantities exceeding a reasonably necessary amount.¹¹⁵ This reservation seems to go a bit beyond *Telegram*. Not only appreciation locked in on secondary markets but also a discount realisable only in kind on a network in which a token is issued are eligible for the third prong. After all, it appears that promoters are precluded from offering any kind of discount.¹¹⁶

TKJ token

On the same day as the framework, the SEC issued a no-action letter to TurnKey Jet Inc, declaring a tokenised jet card called “TKJ Token”, which was a kind of utility token, to be a non-security.¹¹⁷ TurnKey Jet Inc proposed to deploy a blockchain-based permissioned network where only permitted users could be a member, buy TKJ Tokens at USD 1 per token, and request the issuer to arrange and procure, or cause brokers to procure, air charter services commensurately denominated in US dollars.¹¹⁸ By streamlining the processes to arrange many parties involved in the air charter service space, the network aimed to provide advantageous utility for consumers.

The SEC, in reaching the conclusion, assigned a weight to the following facts:

- the proceeds of TKJ Token offerings will not be used for development of the network as would usually be the case with utility tokens;
- the TKJ Tokens will be immediately usable for air charter services;
- TurnKey Jet Inc will restrict transfers of TKJ Tokens to itself only, not to external persons’ wallets;
- TKJ Tokens always have a one-to-one peg against US dollars and represent the obligation of the issuer to procure air charter services of the same value in US dollars;
- if the issuer redeems TKJ Tokens, the redemption price will be discounted from the face value; and

¹¹³ FinHub Framework (2019), s.II.C.2.

¹¹⁴ FinHub Framework (2019), s.II.C.3.

¹¹⁵ FinHub Framework (2019), s.II.C.3.

¹¹⁶ On another front, in the example of the online retailer, the framework permits accommodation in the form of digital tokens based on product purchases, albeit such a favour looks economically equivalent of a discount. It is not clear if the framework premises that such an intent as expecting the reward of additional non-transferrable tokens is consumptive.

¹¹⁷ Response of the Division of Corporation Finance, “Re: TurnKey Jet, Inc.”, Incoming Letter dated 2 April 2019 (SEC No-Action Letter, 3 April 2019) available at: <https://www.sec.gov/divisions/corpfin/cf-noaction/2019/turnkey-jet-040219-2a1.htm> [Accessed 13 March 2021].

¹¹⁸ Letter from James P. Curry, Esquire, to Office of Chief Counsel, Division of Corporation Finance, SEC, “Re: TurnKey Jet, Inc” (2 April 2019), pp.3–5 available at: <https://www.sec.gov/divisions/corpfin/cf-noaction/2019/turnkey-jet-040219-2a1-incoming.pdf> [Accessed 13 March 2021].

- the solicitation lays out the functionality of TKJ Tokens with no potential for value appreciation.

Based on these factors, TKJ Tokens function like a prepaid card. As can be seen, the TKJ Token equips itself with all the six factors listed in the SEC's framework as applied to utility tokens. It is true that the network will continue to be centrally managed by a single entity, but the TKJ Token will not satisfy the Howey Test, devoid of expectation of profits.

Issues remaining to categorise utility tokens

Taking the speech by Hinman Speech, the framework of the FinHub and the cases of *Telegram* and *TurnKey Jet* altogether, concepts surrounding non-security utility tokens can be summarised below. For a utility token not to be a security, the underlying network needs to be “fully developed”.^{119,120} The full development can be achieved in two ways. First, as mentioned in the Hinman Speech, the network develops to the extent that users expect no person or entity to play an essential role in value adding of the token.¹²¹ This form of full development may be called “full decentralisation”. A fully decentralised network will likely lack a common enterprise, according to the *Telegram* court,¹²² or essential managerial efforts, according to the Hinman Speech. The other way to fully develop is a non-profitable and centralised network as in *TurnKey Jet*. Even a network that relies on a person or entity can be fully developed when it is mature enough to not need to raise funds to grow or invest. In this category, a network has to be designed so as to forestall the possibility of profits because both a common enterprise and significant managerial efforts exist at first blush.¹²³ Hence, non-profitable and centralised networks will likely lack the expectation of profits.

There remain some nontrivial issues. First is to what extent the possibility of profits can exist. Pursuant to judicial precedents, it does not satisfy the expectation of profits within the meaning of the third prong as long as it only appertains to some other primary motive such as consumptive use.¹²⁴ The framework of the FinHub follows suit—re-evaluation of the character of a security token may occur where benefits from an increase in price become incidental to functionality, by which it may fall out of securities.¹²⁵ Yet, adding a further twist is a recent case of the 9th Circuit Court of Appeals that held even the secondary motive of profits could pass the third

prong.¹²⁶ Thus, even though it would not be required to preclude the possibility of profits completely, the issue of what kind and extent of profits suffice for the purpose of the third prong still remains unsolved.

More generally, the framework of the FinHub does not show how it will determine if a specific network is fully developed. If promoters direct to a non-profit and centralised network, the criteria will be rather clear—they should not raise capital for development of their network or investment and preclude the possibility of profits. Thus, the issue would boil down to the extent of the possibility of profits. Then how about in the case of full decentralisation? According to Vitalik Buterin, a co-founder of Ethereum, there are three types of decentralisations: architectural decentralisation, political decentralisation, and logical decentralisation.¹²⁷ Architectural decentralisation looks at how many physical computers support a network. Political decentralisation relates to how many individuals or organisations are exercising control over the physical computers supporting a network. Logical decentralisation depends upon whether the interface and data structures remain operational independently even if part of the system is shut down. Among these three, most relevant to the Howey Test would be political decentralisation.

Even with political decentralisation, it would be virtually impossible to draw a bright-line rule. However, coupled with the Hinman Speech that Ethereum is sufficiently decentralised, it could be said that the current roles of the Ethereum Foundation do not impede Ethereum to be politically decentralised. This might be informative. The Ethereum Foundation has been responsible for when what kind of hard forks¹²⁸ occur. At the time of the Hinman Speech, 14 June 2018, the Ethereum Foundation had yet to implement a pre-scheduled hard fork named “Constantinople” which occurred on 28 February 2019. Also, another drastic reform plan named “Ethereum 2.0” or “Serenity”, which has not occurred as of January 2021, predates the Hinman Speech. In principle, hard forks have been planned to improve the functionality of Ethereum blockchains, some of which involved or will involve a decrease in the amount of Ether obtained in mining. Those scheduled hard forks can contribute to the trust of the Ethereum network and a rise in value. Yet, now that Ethereum was referred to as a non-security in the Hinman Speech, it might suggest control over hard forks be not enough as essential managerial efforts.

¹¹⁹ William Hinman, Director of Division of Corporation Finance, “Digital Asset Transactions: When Howey Met Gary (Plastic)” (SEC, 14 June 2018) (hereinafter Hinman Speech) (transcript available at: <https://www.sec.gov/news/speech/speech-hinman-061418> [Accessed 13 March 2021]);

¹²⁰ FinHub Framework (2019), s.II.C.3.

¹²¹ Hinman Speech (2018).

¹²² *Telegram Group* (SDNY 24 March 2020) at 38–39.

¹²³ Other way around, so long as no possibility of profits exists, even a centralised network is to fail the Howey Test, irrespective of the extent of development.

¹²⁴ *Forman* 421 US 837, 856–857 (1975). *Sg Ltd*, 265 F.3d 42, 54 (1st Cir. 2001).

¹²⁵ FinHub Framework (2019), s.II.C.2.

¹²⁶ *Hui Feng* 935 F.3d 721, 730–731 (9th Cir. 2019).

¹²⁷ Vitalik Buterin, *The Meaning of Decentralization* (6 February 2017) available at: <https://medium.com/@VitalikButerin/the-meaning-of-decentralization-a0c92b76a274> [Accessed 13 March 2021].

¹²⁸ Hard fork means that a blockchain diverges permanently into two different blockchains for some reason. One famous hard fork is called “DAO”. The DAO project, mentioned below, ended up with failure on account of a cyber-attack which drained about 30% of Ether paid for DAO Tokens. The DAO hard fork was conducted to restore the status before the token offering.

Payment tokens

The last category of digital tokens is payment tokens, which are designed to function as a payment method to buy goods and services. In a broad sense, some asset tokens and utility tokens can substitute for currency, but only in limited circumstances. For example, an asset token representing an interest in a real estate fund usually would not be accepted as a payment instrument but for the coincidence of wants. Also, utility tokens are intrinsically contemplated to work as a consumable only on a network on which they are issued. Those asset tokens and utility tokens with even limited functionality as payment tokens can be called hybrid tokens, which are not a central subject here. The focus here centres on so-called stablecoins.

Stablecoins

One substantial impediment for asset tokens and utility tokens to be accepted as payment methods is the price volatility. People are reluctant to take the risk of losses derived from the instability of the value they receive as payments in ordinary commercial activities. Stablecoins are attempts to challenge this volatility problem. Although there is no legal definition, in general “stablecoins” mean a crypto-asset designed to fluctuate identically with specified currencies, commodities, indices or some other assets. If stablecoins come to be regarded as a practical means for payments and gain massive adoption, people, including currently unbanked persons, can dispense with transmitting costs charged by traditional intermediaries. At the moment, stablecoins are classified into the following four variations:

- Fiat currency collateralised stablecoins: stablecoins that are backed by a fiat currency. Famous examples are Gemini Dollar,¹²⁹ Tether¹³⁰ and TrueUSD.¹³¹ Backed by US dollars, the prices of those stablecoins tend to move along with the price of US dollars. The number of fiat currencies backing a stablecoin may be more than one. For instance, Globcoin is a stablecoin backed by a basket of several fiat currencies and gold.¹³² A basket of fiat currencies is expected to render a stablecoin more stable. The Libra Association

published a White Paper¹³³ to materialise a new worldwide economic zone that Facebook, Inc had in mind. Libra, a stablecoin that was supposed to underly the network, was at first structured to be backed by a basket of fiat currencies. Confronted with persistent objections from regulatory authorities of several countries, however, the Libra Association was compelled to modify Libra drastically in their White Paper version 2.0 from a multi-currencies collateralised stablecoin to a single fiat currency collateralised one.¹³⁴ Further, the replacement of Libra by Diem has been announced but its characteristics are still unknown.¹³⁵

- Commodity collateralised stablecoins: stablecoins that are backed by a commodity. Digix Gold Token¹³⁶ and Pax Gold¹³⁷ are examples of stablecoins backed by gold. The price of gold often moves in the opposite direction; historically, it has run up in economic downturns. Investors favour that negative correlation of gold to the stock market for the purpose of diversification.
- Crypto-asset collateralised stablecoins: stablecoins that are backed by a single or basket of crypto-assets. An example is MakerDAO.¹³⁸ Since backing by volatile crypto-assets does not enhance stability of stablecoins, usually more stable crypto-assets such as bitcoin and Ethereum are chosen as collateral.
- Algorithmic stablecoins: stablecoins the price of which is adjusted corresponding to a target asset or index by some algorithmic mechanisms. Examples are Basis,¹³⁹ Carbon,¹⁴⁰ and Steem Dollar.¹⁴¹

As seen above, each type of stablecoins has its own method and logic to tie its price to that of a target fiat currency, commodity, crypto-asset, or index. From a structural perspective, concerning fiat currency or commodity collateralised stablecoins, a third party is assumed to serve as a custody of assets backing stablecoins and usually retain the same amount of real currencies or commodities as has purportedly been issued as stablecoins. The sufficient reserve of real currencies

¹²⁹ “Using Gemini dollar”, *Gemini.com* available at: <https://gemini.com/dollar> [Accessed 13 March 2021].

¹³⁰ Tether webpage available at: <https://tether.to/> [Accessed 13 March 2021].

¹³¹ TrustToken webpage available at: <https://www.trusttoken.com/trueusd/> [Accessed 13 March 2021].

¹³² Globcoin webpage available at: <https://globcoin.io/howitworks.html> [Accessed 13 March 2021].

¹³³ The characteristics of the cryptocurrency Facebook intends to launch have been changed drastically every time it publishes a new version of the White Paper. In the first version, Facebook named its cryptocurrency Libra and intended Libra to be collateralised by multiple fiat currencies. White Paper (version 2.0) available at: <https://www.diem.com/en-us/white-paper/> [Accessed 12 April 2021].

¹³⁴ “Welcome to the official White Paper” available at: <https://libra.org/en-US/white-paper/> [Accessed 13 March 2021].

¹³⁵ “Welcome to the official White Paper” available at: <https://www.diem.com/en-us/white-paper/> [Accessed 13 March 2021].

¹³⁶ “The Digix Ecosystem” available at: <https://digix.global/#/ecosystem> [Accessed 13 March 2021].

¹³⁷ Pax Gold webpage available at: <https://www.paxos.com/paxgold/> [Accessed 13 March 2021].

¹³⁸ “The Maker Protocol: MakerDAO’s Multi-Collateral Dai (MCD) System” available at: <https://makerdao.com/en/whitepaper/> [Accessed 13 March 2021].

¹³⁹ Basis webpage available at: <https://www.basis.io/> [Accessed 13 March 2021]. By virtue of regulatory concerns about the Securities Act, the Basis project fell flat and the issuer company refunded the raised capital to purchasers.

¹⁴⁰ Carbon webpage available at: <https://www.carbon.money/home> [Accessed 13 March 2021].

¹⁴¹ *Steem: An incentivized, blockchain-based, public content platform* (June 2018) available at: <https://steem.com/steem-whitepaper.pdf> [Accessed 13 March 2021].

or commodities enables stablecoin holders to exchange back for real currencies or commodities quickly.¹⁴² In contrast, crypto-asset collateralised stablecoins store crypto-assets as collateral on a blockchain through smart contracts. To be sure, developers of stablecoins exist, but once deployed, the status of the collateral assets is visible and accessible by stablecoin holders, unlike the former two types of stablecoins where the extent of transparency largely depends on regulations on third parties. Algorithmic stablecoins have no backing assets, so generally the price of an algorithmic stablecoin fluctuates based on the balance between its supply and demand. Hence, the price stability of algorithmic stablecoins vis-à-vis an intended peg hinges on the effectiveness of economic theories encoded in the protocol.

Securities Act and Securities Exchange Act

The regulatory authorities' approach to regulating stablecoins has been garnering worldwide attention. Lately, the Board of the International Organization of Securities Commissions articulated some stablecoins have characteristics of securities without regard to developers' labelling them as payment solutions.¹⁴³ So far, the SEC does not seem to have clarified its position about whether stablecoins are securities. That said, 2019 saw the surging momentum toward regulations, accelerated in the wake of the first Libra White Paper. In March 2019, the SEC's Senior Advisor for Digital Assets, Valerie Szczepanik, after classifying stablecoins into fiat currency backed ones, real asset-backed ones and algorithmic ones, expounded on the last category as potential securities.¹⁴⁴ According to her, stablecoins might be under the SEC's regulatory umbrella, where one central party is in control of price movements of stablecoins through adjusting supply and demand in any way.¹⁴⁵ This view was soon after augmented by the FinHub Framework with the claim that managerial solutions would more likely be found if active participants: (1) exercised control over creation of

digital assets; or (2) shored up a market price such as by limiting supply or burning.¹⁴⁶ Also, the court in *Telegram* considered the developer's propping up the value of Gram in favour of the essential managerial efforts.¹⁴⁷

Given the focal issue she cares about is the promoter's control, her remark prompts a hypothetical question: In the case of an autonomous and decentralised algorithm that expands and contracts the circulation of a stablecoin without the human hand, does the stablecoin fail the third prong of the Howey Test?¹⁴⁸ Given that the promoter has no authority to interfere with expansion and contraction of the supply once the protocol is deployed, there seems some room for arguing no entity is controlling the algorithmic stablecoin.¹⁴⁹

Setting aside the control issue, there still remains a nettlesome problem regarding algorithmic stablecoins: so-called seigniorage shares. In economic terms, the seigniorage means the revenue accruing to a currency issuer in the amount of difference between the face value of the currency issued and the costs to produce and distribute the currency.¹⁵⁰ Robert Sams ushered this concept into the algorithmic stablecoin space.¹⁵¹ In sum, the idea is to issue shares in the seigniorage separately from a stablecoin in circulation. When the price of the stablecoin deviates materially from the designated peg, the underlying protocol algorithmically retires the stablecoin in exchange for seigniorage shares issued or distributes the new stablecoin in exchange for seigniorage shares, thereby adjusting the stablecoin supply.¹⁵² With this structural presumption, stablecoin holders could benefit from the seigniorage shares in that they can receive additional stablecoins for the sake of stabilisation, which implies the expectation of profits.¹⁵³ Thus, algorithmic stablecoins are now facing a few hiccups along the way to passing regulatory muster.

The legislative momentum is not limited to algorithmic stablecoins. The first Libra White Paper spurred members of Congress to introduce a bill regulating broader stablecoins.¹⁵⁴ Under the bill, stablecoins that are

¹⁴² Recently, a scandal on Tether has drawn attention. At first, Tether promised the 1:1 peg to US dollar, which meant Tether holders could expect Tether Limited, the issuer of Tether, to hold a US dollar amount equal to the number of Tether issued in a separate bank account. Later, the issuer changed the promise, admitting that it had invested about one-fourth of the total amount in non-cash equivalent instruments. The lack of backing assets caused a reversal in the trust towards Tether. A relevant lawsuit is still pending at the time of this article. See, e.g. Stephen O'Neal, "Bitfinex and Tether Reject 'Baseless' Lawsuit Filed Against Them" available at: <https://cointelegraph.com/news/bitfinex-and-tether-reject-baseless-lawsuit-filed-against-them> [Accessed 13 March 2021].

¹⁴³ International Organization of Securities Commissions (IOSCO), *Global Stablecoin Initiatives* (23 March 2020), p.3.

¹⁴⁴ Guillermo Jimenez, *SEC's Crypto Czar: Stablecoins might be violating securities laws* (15 March 2019) available at: <https://decrypt.co/5940/secs-crypto-czar-stablecoins-might-be-violating-securities-laws> [Accessed 13 March 2021].

¹⁴⁵ Jimenez, *SEC's Crypto Czar: Stablecoins might be violating securities laws* (15 March 2019).

¹⁴⁶ FinHub Framework (2019), s.II.C.1.

¹⁴⁷ *Telegram Group* (SDNY 24 March 2020) at 26.

¹⁴⁸ As things now stand, such a stablecoin is thought unattainable since algorithmic stablecoins rely on unproven economic assumptions and complex monetary policy; some centralised mechanisms are needed to stabilise the price of stablecoins. See Shermin Voshmgir, *Token Economy: How Blockchains and Smart Contracts Revolutionize the Economy* (27 June 2019), pp.182–183.

¹⁴⁹ Where the promoter disengages itself from any continuous support for the network, it is not easy to satisfy the essential managerial efforts unless such efforts are exhausted during the period from the ICO to the launch like under the SAFT proposal. Or, according to *Telegram*, it could be said no common enterprise exists in such a fully decentralised network. If either interpretation does not survive here and the promoter's control is still found, it might be based on some consideration specialised for algorithmic stablecoins.

¹⁵⁰ Voshmgir, *Token Economy: How Blockchains and Smart Contracts Revolutionize the Economy* (2019), pp.181–182.

¹⁵¹ Robert Sams, *A Note on Cryptocurrency Stabilisation: Seigniorage Shares* (24 October 2014).

¹⁵² Sams, *A Note on Cryptocurrency Stabilisation: Seigniorage Shares* (2014), pp.3–4.

¹⁵³ Not officially announced but the reason why the promoter jettisoned the Basis project could be because they could not dispel misgivings concerning the expectation of profits. As a viewpoint different from discussing algorithmic stablecoins within the framework of the Howey Test, some point to a possibility that seigniorage type stablecoins could fall under a "warrant or right to subscribe to or purchase" a security, one of the enumerated securities under the Securities Act s.2(a)(1) and the Exchange Act s.3(a)(10). Clifford Chance, *Stablecoins: A Global Overview of Regulatory Requirements in Asia Pacific, Europe, the UAE and the US* (17 September 2019) (hereinafter Clifford Chance Overview), p.6.

¹⁵⁴ "Stablecoins are Securities Act of 2019", H.R. 116th Cong. (18 October 2019) available at: <https://financialservices.house.gov/uploadedfiles/bills-116pih-ssa.pdf> [Accessed 13 March 2021].

categorised as securities have either of the following attributes: (1) the market value of the stablecoin reflects a basket of assets managed by a third party; or (2) holders of the stablecoin can redeem it for some value, the amount of which is determined corresponding to the value of pooled assets managed by a third party.¹⁵⁵ According to this definition, algorithmic stablecoins are excluded for the lack of backing assets but the other three types of stablecoins would be all included. Though the bill has not been enacted as at the time of writing, if done so, it would have a sweeping impact on asset-backed stablecoins.

Until the bill comes into effect, the Howey Test will still serve as the standard to evaluate asset-backed stablecoins. All of the three asset-backed stablecoins assume a pool of assets in a bank account or custody or on a smart contract, so in general a common enterprise would be satisfied by virtue of the horizontal commonality. With respect to the third prong, the existence of the expectation of profits essentially derived from managerial efforts mostly turns on facts and circumstances of each case. As an abstract discussion, crypto-asset collateralised stablecoins operational at present seem to rely on developer teams for processes of governance, financial risk research, regulations on collateral etc.¹⁵⁶ Then, it does not exonerate crypto-asset collateralised stablecoins from the scrutiny under the third prong that an underlying network is decentralised and based on smart contracts.

As to fiat currency collateralised stablecoins, the general characteristic of 1:1 peg to US dollar or other fiat currencies precludes stablecoin holders from benefiting through redemption. Even if they might be able to lock in capital gains by reselling stablecoins on secondary markets, ordinary services provided by developers of fiat currency backed stablecoins are limited in scope to storage and redemption at the behest of purchasers. Following the long-established interpretation, such ministerial services should not qualify as the essential managerial efforts.¹⁵⁷ Nor are the profits solely derived from market fluctuations included in the expectation of profits.¹⁵⁸ As another path to granting the SEC's authority, some point to demand notes, which traditionally mean two-party negotiable instruments obligating a debtor to pay the noteholder at any time upon request, enumerated under the Securities Act s.2(a)(1) and the Exchange Act s.3(a)(10).¹⁵⁹ If the SEC takes the position that fiat

currency collateralised stablecoins fall under demand notes, the "family resemblance" test, as mentioned above, will determine a particular stablecoin can rebut the presumption as securities.

Things get complicated in the case of multi-currencies collateralised stablecoins. For now, not so many multi-currencies collateralised stablecoins are in production, so the following analyses are rather semantic and hypothetical. As for essential managerial efforts, the roles of developers would be significant such as where they have unfettered discretion in the composition and proportion of currencies to be included in the portfolio. In such a case, purchasers will more likely fall back on developers' expertise in stabilising the price of stablecoins relative to the specified peg.¹⁶⁰ Regarding the expectation of profits, profits can result from the redemption of stablecoins or resales of them on secondary markets. If a redemption price is higher than the amount purchasers deposited, this time, the spread revenue is probably seen as a result of developers' selection of currencies, not solely external market forces. So is the profit from resales. If so, the only possible claim made by developers might be to accentuate the property as payment instruments while rendering speculative aspects insubstantial.¹⁶¹

Finally, commodity collateralised stablecoins are often backed by gold, so this article focuses on gold-backed stablecoins. An added complexity here is the uniqueness of each gold bar. To take a big picture view, gold-backed stablecoins often represent not a proportionate share in the pooled gold managed by the developer but ownership right of a specific gold bar with a unique serial number allocated by the developer. The developer does not have authority to assign the gold held on behalf of stablecoin holders. Under such conditions, the success of each stablecoin does not seem to rely on other units of the stablecoin, inferring the lack of a common enterprise. Even where a common enterprise is somehow found, it would be hard to get through the third prong. Just like single fiat currency-backed stablecoins, the roles of developers of gold-backed stablecoins are largely storing gold on behalf of purchasers, which is not sufficient to constitute the essential managerial efforts. Besides, the value of gold-backed stablecoins fluctuates identically with the market price of gold, independent of the services by developers.

¹⁵⁵ "Stablecoins are Securities Act of 2019" (2019), pp.2–3.

¹⁵⁶ See, e.g. "The Maker Protocol: MakerDAO's Multi-Collateral Dai (MCD) System: Emergency Oracles" available at: <https://makerdao.com/en/whitepaper/#emergency-oracles> [Accessed 13 March 2021].

¹⁵⁷ Commission Announcement, "Commission Issues No-Action Position Relating to Certain Offerings of Gold, Securities Act and Exchange Act" (1974), p.1

¹⁵⁸ *Noa* 638 F.2d 77, 79 (9th Cir. 1980); FinHub Framework (2019), s.II.C.2.

¹⁵⁹ Jake Chervinsky et al, *Will Fiat-Backed Stablecoins Pass Legal Muster With the SEC and CFTC?* (2 March 2019); Mladen Milovic, *Why Stablecoins Will Be Regulated* (11 October 2019). To the extent a stablecoin accepts redemption at the instance of purchasers, all the requirements other than "negotiable" are likely to be found. Although the term "negotiable" does not seem to have been defined so far, pursuant to the US Supreme Court in *Forman*, while stocks are generally negotiable, developers may create a non-negotiable instrument. *Forman* 421 US 837, 851 (1975). Premised on the view, it can be said stablecoins offered on a take-it-or-leave-it basis are not demand notes.

¹⁶⁰ Clifford Chance Overview implies even with the issuer selecting fiat currencies, efforts of others could be denied if a stablecoin is as decentralised as would lack a promoter. Clifford Chance Overview (2019), p.5.

¹⁶¹ As mentioned in the section titled "Howey Test" above, claiming the profit motive is incidental to a non-profit motive may no longer be enough to deny the expectation-of-profits, *Hui Feng* 935 F.3d 721, 730–731 (9th Cir. 2019). That said, it is still expected to militate against the expectation of profits in concert with other factors.

One interpretive issue is a possible imbalance. Putting gold ETFs and gold-backed stablecoins in juxtaposition, gold ETFs fall under securities with no exception¹⁶² whereas gold-backed stablecoins should not in principle, albeit the extent of managerial efforts seems much the same. One explanation could be that gold-backed stablecoins are not yet commonly known as a “security”¹⁶³ unlike gold ETFs, in which case, however, gold ETFs are to be subject to the Howey Test as commonly-known-as securities.¹⁶⁴ Then, flatly characterising gold ETFs as securities looks like a square peg in a round hole in connection with the fact-orientated standard of the Howey Test.

Conclusion

More than a decade has passed since the launch of the bitcoin blockchain. This originally fast-paced industry further accelerated its evolution after the advent of the smart contract and the Ethereum blockchain in 2014. Countless projects based on smart contracts flourished under the radar of regulatory authorities. The capstone was the ICO bubble in 2017 and early 2018. Such a lawless landscape, however, did not last long—the SEC came to apply the traditional Howey Test to digital assets after DAO Report in 2017. Although the SEC has kept applying the same test, in effect the scope of the Howey Test has been gradually enlarging to cover digital assets.

Our research is, however, leading to a serious number of policy questions that will need to be addressed by the US regulators:

- The use by the SEC of the Howey Test raises the question of its applicability. The judgment was appropriate for different circumstances in 1946. Is it for tokens and tokens offerings?¹⁶⁵
- The tendency of regulators to stretch the scope of precedents to be able to reassure themselves of authority over a novel scheme or asset is a well-known practice that is not really challenged in the courts. In this particular context of digital assets, however, the connection between tokens and traditional securities which the Howey Test has applied could be seriously questioned. Is it robust enough to justify the application of the Howey Test to tokens?
- The question of immaterial assets cannot be dealt with by using the example of material assets. The development of digitalisation has become overwhelming

and central banks are now looking at Digital Central Bank Currency (CBDC). The digital part of that initiative is not in question—it creates disintermediation questions.¹⁶⁶

- What is a token? No token fulfils the three functions of money: means of payment, unit of account, and an instrument of reserve. Should central banks treat tokens as such? Should they get involved in regulating their use except as a “foreign” asset? Should a new legal definition be used to make sure that we know what “it” is?
- Our analysis shows a number of creative and uncoordinated ways regulators have approached the issuance and distribution of tokens. Should they not propose a new law that will address the digital assets as separate from the traditional concepts of securities? Should a specific regulator be empowered or created to do so?
- The current regulation of digital assets in the US and in other countries has been a brave attempt to put new assets in old structures. They are unsatisfactory, even though they are understandable. It covers different regulators and regulations. It has not been seriously tested in court. The urgency of a legal framework to cover those assets is obvious from our review. Are relevant agencies willing to get together to do so?

This article has introduced a variety of recent schemes based on blockchain technologies. As is always the case, any new technology has a cycle of wax and wane. In that sense, these few years have faced suppressive and innovation-unfriendly regulatory environments. Several would-be-groundbreaking projects, such as The DAO and Basis algorithmic stablecoin, fell by the wayside, confronted with the dissent by the SEC. The SAFT proposal, a painstaking attempt to facilitate innovations, also underwent an ordeal by the SEC and the district court in *Telegram*. At the bedrock of the hard look by regulatory authorities might lie a scepticism that often tokenisation is a way to sidestep regulations under the guise of marketing buzzwords. Such incredulity is now culminating in the SEC’s pre-emptive rejection of crypto ETFs over two years. The only way to pull through this quasi-deadlock situation seems to keep trying to convince the regulatory authorities on the feasibility of new technology-based schemes. Hopefully, the discussion

¹⁶² See the section titled “Howey Test” above. See also, McBride Johnson, “The CFTC and commodity-based exchange-traded funds” in *Derivatives Use, Trading & Regulation* (Invited Editorial, 1 February 2006), Vol.11, p.306.

¹⁶³ Securities Act s.2(a)(1); Exchange Act s.3(a)(10).

¹⁶⁴ *Forman* 421 US 837, 851–852 (1975).

¹⁶⁵ Client Advisories, “Why the SEC Thinks Most Tokens Are Securities And When the SEC Thinks a Token Might Stop Being a Security” (2018) available at: <https://www.wsgr.com/en/insights/why-the-sec-thinks-most-tokens-are-securities-and-when-the-sec-thinks-a-token-might-stop-being-a-security.html> [Accessed 13 March 2021].

¹⁶⁶ Bank for International Settlements (BIS), “Central banks and BIS publish first central bank digital currency (CBDC) report laying out key requirements” (Press Release, 9 October 2020) available at: <https://www.bis.org/press/p201009.htm#:~:text=Seven%20central%20banks%20and%20the%20BIS%20release%20a,not%20give%20an%20opinion%20on%20whether%20to%20issue> [Accessed 13 March 2021].

would land on the side of innovation, before fading into obscurity. As the bitcoin market capitalisation reaches \$1 trillion, the question is changing nature. The basic rules of transparency of the crypto asset, transparency of

markets themselves, definition of the object and the use of the Howey Test are cornerstones of what should be a specific regulation based on the same principles of public markets.