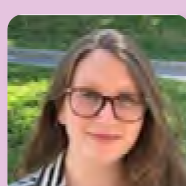
# CRYPTOCURRENCY REGULATION AND AN ECONOMIC CLASSIFICATION OF TOKENS



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**Crypto Needs Common Sense Financial Regulation – Suggestions for 2022**
By Sean Stein Smith

**The Global Challenge of Digital Asset Regulation**
By Bianca Kremer & Kevin Werbach

**Can Crypto Fix Itself in Time?**
By David S. Evans

**Cryptocurrency Regulation and an Economic Classification of Tokens**
By Lin William Cong & Claire Wilson

**Defining Relevant Markets in the Crypto Economy**
By Florian Deuflhard & C.-Philipp Heller

**Can WEB3 Bring Back Competition to Digital Platforms?**
By Christian Catalini & Scott Duke Kominers

**Crypto Love is a Battlefield**
By Richard B. Levin, Craig Nazzaro, Brian Russ & Kevin Tran



# Cryptocurrency Regulation and an Economic Classification of Tokens

By Lin William Cong & Claire Wilson

We discuss some of the core regulatory issues concerning crypto-tokens and digital currencies. While regulation can potentially address the needs of market participants and enhance market confidence, current approaches are either excessive or too light. As a start, we need to categorize different types of tokens, consider what protections are needed, and then model regulation around them. In particular, we highlight why token classification matters for regulation and present a classification framework based on the economic functions of tokens.

# 01

## INTRODUCTION

Cryptocurrencies compete with traditional fiat currencies, disrupt existing financial systems, and create challenges for regulatory agencies. With illegal activities, as well as pseudonymous networks (allowing for discrete, anonymous transactions), governments are wary of allowing wide adoption and usage. Careful and comprehensive regulations can address the needs of market participants and boost market confidence.

Excessive regulation may kill innovation. As crypto continues to grow in popularity internationally, strong regulation is becoming necessary. With China, India, and South Korea already severely limiting their countries' interactions with private crypto, many fear this wave of crackdowns might spread to the rest of the world.[2] Yet, the laissez-faire approaches in many countries may be too light. As a starting point, we need to categorize different types of tokens, consider what protections are needed, and then model regulation around them. This paper offers a first step in that direction.

Due to the diverse and innovative nature of cryptocurrencies and blockchain technology, U.S. regulators face an incongruous definition of what a cryptocurrency is, and therefore, what jurisdiction and regulations cryptocurrency must adhere to. Certain digital assets and cryptocurrencies are considered to be securities (depending on the circumstances, perhaps limited to their initial distribution) and others may be commodities, creating some ambiguity around how digital assets should be categorized. The goal of this article is to outline current arguments for reform and relevant definitions, certain of the implications of being classified as either a security or a commodity, and how this regulation may affect different parties such as issuers, exchanges, and investors. Importantly, we discuss a new classification framework based on economic functionality that would facilitate easy regulation going forward.

# 02

## CRYPTOCURRENCY AS A SECURITY

"Security" is defined in Section 2(a)(1) of the Securities Act of 1933 and Section 3(a)(10) of the Securities Exchange Act of 1934. Both definitions (which largely, but not entirely, track each other) identify certain specific instruments as "securities" (such as common stock and notes) and also include broader provisions that potentially extend the federal securities laws to new instruments that are not specifically identified. Among them, "investment contracts" are included within the definition of "security." Whether or not an instrument is an "investment contract" has been subject to interpretation by the courts and the SEC, resulting in a range of tests that delimit the boundaries of that term. The most well-known is the Howey Test, which sets out four basic criteria to determine if an instrument is a security subject to SEC regulation.[3] At its basic, the Howey Test looks to whether (1) there is an investment of money (or other consideration) (2) in a common enterprise (3) in which an investor is led to expect profits (or other value) (4) which are derived principally from the efforts of one or more third parties.[4] Some cryptocurrencies have been treated as securities under the Howey Test, while others have managed to evade SEC recognition.

The first instance of the Howey Test being applied to a digital asset came from the cease-and-desist proceedings to halt Munchee Inc.'s sale of tokens. In that order, the distribution of Decentralized Autonomous Organization (or "DAO") tokens was declared to be an unregistered securities offering despite their utility design features.[5]

Recent SEC actions have potentially expanded the scope of the federal securities laws. For example, in August 2021, the SEC settled charges against Blockchain Credit Partners for using decentralized finance technology to sell over $30 million of securities in an unregistered offering and misleading investors about the company's operations and profitability. The company sold two types of digital tokens: mTokens that could be purchased using specified digital assets and that paid 6.25% interest, and DMG "governance tokens" that purportedly gave holders certain voting rights, a

**2** Dan Milmo & Dan Milmo Global technology editor, *India to ban private cryptocurrencies and launch official digital currency*, The Guardian, November 24, 2021, https://www.theguardian.com/world/2021/nov/24/india-to-ban-private-cryptocurrencies-and-launch-official-digital-currency (last visited Dec 30, 2021).

**3** David Concannon, Yvette Valdez & Stephen Wink, *Not in Kansas anymore: The current state of consumer token regulation in the United States, in* Blockchain & Cryptocurrency Regulation 2022 68–92, 68–69 (Fourth Edition ed. 2021), https://www.lw.com/thoughtLeadership/gli2021-blockchain-crypto-not-in-kansas-anymore- (last visited Dec 30, 2021).

**4** *Id*. at 68.

**5** *Id.* at 69.

share of excess profits, and the ability to profit from DMG governance token resales in the secondary market. The SEC explained that labeling the tokens as decentralized or a governance token did not prevent the SEC from concluding that the tokens were securities.[6] Likewise, in August 2021, the SEC found that a crypto exchange had facilitated the buying and selling of digital assets, including investment contracts. According to the SEC's order, the trading platform met the criteria of a securities "exchange," which required that it register as such with the SEC, which it had failed to do.[7]

Based on SEC regulatory actions, no-action letters, and policy guidelines, whether or not a digital asset satisfies the third and fourth prongs of the Howey Test – namely, whether an investor was led to expect profits (or other value) derived principally from the efforts of others – is likely to be significant in determining whether the instrument is a security.[8] Several academic studies provide a more detailed discourse on how conceptually to distinguish between entrepreneurial and managerial efforts pre-launch and post-launch for purposes of categorizing tokens.[9] [10]

### A. How Does the Label affect the Ecosystem?

Due to the nature of cryptocurrencies, with many trying to become daily use tokens and others trying to become more mainstream, being labeled as a security comes with its own challenges. As seen from the efforts of Coin Center's numerous statements and Andreessen Horowitz's presentations to Washington, many crypto investors and firms are fighting to be treated as commodities.[11] Issues that arise if a cryptocurrency is federally regulated as a security can be addressed in four main categories: initial coin offerings, reporting, stablecoins, and taxation.

### B. Initial Coin Offerings

For many early-stage cryptocurrencies, it can be hard to distribute and sell tokens to raise the initial capital required to continue and build. The original method was through gifting or mining; however, more recent token distribution methods include selling tokens to those intending to speculate on future value rather than direct participation in the network.[12] The more risky distribution methods include presale or pre-mining in which hardcoded tokens are sold to consumers at a promised value before the tokens are produced, with the proceeds used to then fund the mining efforts.[13] This can take the form of certain utility tokens, which may be labeled as commodities once they are traded, but may be regulated as securities as part of their initial distribution to the public.[14] Because these distribution methods implicate the third and fourth prongs of the Howey Test, the SEC has found a majority of these presale tokens/ICOs to involve the distribution of securities. Consequently, many early networks are starting to iterate and find different ways of distribution that fall outside the Howey Test.

> ***Due to the nature of cryptocurrencies, with many trying to become daily use tokens and others trying to become more mainstream, being labeled as a security comes with its own challenges***

**6** Jamie Boucher et al., *Cryptocurrency Regulation and Enforcement at the US Federal and State Levels*, Skadden, https://www.skadden.com/insights/publications/2021/09/quarterly-insights/cryptocurrency-regulation-and-enforcement-at-the-us-federal-and-state-levels (last visited Dec. 30, 2021).

**7** *Id.*

**8** See Concannon, Valdez & Wink, *supra* note 3, at 69.

**9** Lin William Cong & Yizhou Xiao, *Categories and Functions of Crypto-Tokens* 12 (2020), https://papers.ssrn.com/abstract=3814499 (last visited Jan. 2, 2022)

**10** Lin William Cong, Ye Li & Neng Wang, *Token-based Platform Finance* (2021), https://papers.ssrn.com/abstract=3472481 (last visited Jan. 3, 2022).

**11** Joe Light, *Crypto Firms Brace for Regulation by Writing Own Rules*, Bloomberg (2021), https://www.bloomberg.com/news/articles/2021-10-13/crypto-firms-brace-for-regulation-by-writing-their-own (last visited Dec. 30, 2021).

**12** Peter Van Valkenburgh, *Framework for Securities Regulation of Cryptocurrencies*, Coin Center (2018), https://www.coincenter.org/framework-for-securities-regulation-of-cryptocurrencies/ (last visited Dec. 30, 2021).

**13** *Id.*

**14** Amit Singh, *SEC Chair Gives Example of Token That Isn't a Security*, startupblog (2018), http://www.new.startupblog.com/sec-chair-defends-agency-action-on-icos/ (last visited Dec. 30, 2021).

**C. Registration of Exchanges**

The requirement for exchanges to register poses another major issue for the crypto market. Exchanges, being arguably the most profitable players in the ecosystem, have been accused of wash trading, front running, and/or freezing customer balances.[15] With less than 1% of transactions occurring on regulated exchanges in 2019, there is a need for clear regulation on who needs to register and what benefits that may serve.[16] By being forced to register with the SEC, the exchanges would be required to record their trades and adopt safety systems to make their order books audit-compliant.[17] As shown in a study on crypto-wash trading, regulated exchanges that considerably commit towards compliance and license acquisition do little wash trading showing the impact that regulation has and how it may serve the overall market.[18]

> *The requirement for exchanges to register poses another major issue for the crypto market*

Crypto exchanges may also be subject to Know Your Customer (KYC) and AML regulations.[19] Entities subject to KYC requires must know detailed information about their clients' risk tolerances, respective investment knowledge, and financial positions. For exchanges, this would be quite hard given that many are decentralized exchanges or systems built with anonymity in mind, so they don't have the current systems and information required to be KYC and AML compliant.[20] One study found that half of all crypto exchanges possessed weak or non-existent KYC processes.[21] Consequently, if they become subject to KYC or similar requirements, many exchanges would need to completely rework their transaction process either through implementing a strategy, like anonymous identity verification modules, another form of transaction identification, or to avoid U.S. regulations, choosing to move abroad or restricting access to non-US consumers.[22]

**D. Stablecoins**

Stablecoins pose another challenge for regulators. Stablecoins are tokens that tie their value to an existing fiat currency and are backed by a large reserve of low-risk assets.[23] Due to the growth in the market as well as its favorability with bad actors, the U.S. President's Working Group on Financial Markets ("PWG"), the U.S. Federal Deposit Insurance Corporation ("FDIC"), and the Office of the Comptroller of the Currency ("OCC") released the so-called PWG Report calling for urgent legislative action to limit stablecoins and address the risks they pose to the broader financial system.[24] With cases such as Tether-- the largest stable coin -- misrepresenting the nature of its reserves, market manipulation by stablecoin issuers, as well as the PWG Report calling for urgent legislative action, the case for a stablecoin crackdown seems imminent.[25]

While this will only impact a minor part of the overall cryptocurrency sector, stablecoins present a unique perspec-

**15** Mark Austen, *ASIFMA Best Practices Digital AssetExchanges* (2018), https://www.lw.com/thoughtLeadership/ASIFMA-best-practices-digital-asset-exchanges (last visited Jan 24, 2022).

**16** Lin William Cong et al., *Crypto Wash Trading* 2 (2021), https://papers.ssrn.com/abstract=3530220 (last visited Dec. 31, 2021).

**17** Rakesh Sharma, *How SEC Regs Will Change Cryptocurrency Markets*, Investopedia (2021), https://www.investopedia.com/news/how-sec-regs-will-change-cryptocurrency-markets/ (last visited Dec 30, 2021).

**18** See Cong et al., *supra* note 19, at 5.

**19** What Is KYC? Know Your Customer for Crypto Traders, Gemini, https://www.gemini.com/cryptopedia/kyc-meaning-know-your-customer, https://www.gemini.com/cryptopedia/kyc-meaning-know-your-customer (last visited Jan 24, 2022).

**20** Rachid Ajaja, *KYC is essential, especially within crypto*, TechRadar (2021), https://www.techradar.com/news/kyc-is-essential-especially-within-crypto (last visited Dec. 30, 2021).

**21** *Id.*

**22** *Id.*

**23** Sharma, *supra* note 17.

**24** Kathryn Wellman & Neil Bloomfield, *President's working group report calls for stablecoin regulation*, Reuters (2021), https://www.reuters.com/legal/transactional/presidents-working-group-report-calls-stablecoin-regulation-2021-12-02/ (last visited Dec. 30, 2021).

**25** Sharma, *supra* note 17.

tive since, due to their limited risk, they are much easier to adopt and regulate than other cryptocurrencies.[26] As regulations are imposed on stablecoins, it is likely there will be a secondary impact on the general crypto market.

### E. Taxation

The final issue is taxation. Beginning in 2019, the IRS asked for the first time explicitly if taxpayers had transacted in crypto; unfortunately, it was asked on a form that not many people complete, leading to many taxpayers unintentionally misstating their taxes.[27] In 2020, to help remedy this issue, the wording of the question was made more clear and moved to the 1040; however, since the IRS treats virtual currencies similar to property, taxpayers must calculate crypto gains and losses which can be challenging.[28] In order to help make this calculation easier, some exchanges have started delivering 1099-Ks similar to the 1099-Bs often associated with a brokerage firm.[29] These forms, however, are only given to those who meet a certain level of transactions either through dollar amount or a minimum transaction number; likewise, they don't include the original cost at which the asset was purchased, which means it may still be a challenge to calculate taxable gain.[30] With these challenges in mind, the U.S. Treasury Department's "Greenbook" calls for more comprehensive reporting requirements for crypto.[31] This includes proposals to require businesses to report certain transactions to the IRS and, specifically, for crypto asset exchanges, custodians to report data on user accounts that conduct at least $600 USD in gross inflows or outflows in a given year.[32]

One of the fears of treating crypto as a security is that taxation policies may lead to members of the crypto community being unable to use crypto for daily transactions (one proposal was to have a *de minimis* exemption). Under current tax rules, persons who both mine and sell tokens can be taxed twice (first as income tax when the tokens are created and capital gains tax upon sale), potentially deterring the creation of new tokens.[33]

# 03

# CRYPTOCURRENCY AS A COMMODITY

As defined, commodities refer to "all services, rights, and interests […] in which contracts for future delivery are presently or in the future dealt in." [34] On that basis, the U.S. Commodity Futures Trading Commission (the "CFTC") has taken the view that certain tokens such as Bitcoin and Ether are commodities,[35] which may be subject to CFTC enforcement in the event of fraud.[36] Cong, Li, and Wang in "Tokenomics: Dynamic Adoption and Valuation" first recognize theoretically that tokens exhibit features of commodities, which is empirically corroborated in Cong, Karolyi, Tang, and Zhao in

**26** The Importance of Stablecoins and Their Future - Zipmex, , Zipmex (2021), https://zipmex.com/learn/the-importance-of-stablecoins-and-their-future/#header-c2 (last visited Dec 30, 2021).

**27** MacKenzie Sigalos, *How the IRS is trying to nail crypto tax dodgers*, CNBC (2021), https://www.cnbc.com/2021/07/14/irs-new-rules-on-bitcoin-ethereum-dogecoin-trading.html (last visited Dec 30, 2021).

**28** Nelson Hsieh, *New Crypto Tax Reporting Requirements in the 2021 Infrastructure Bill*, Volt Equity (2021), https://www.voltequity.com/post/new-crypto-tax-reporting-requirements-in-the-2021-infrastructure-bill (last visited Dec 30, 2021).cryptocurrency exchanges have not been required to report any information about gains or losses to the IRS, or to their customers. Section 80603 of the Infrastructure Investment and Jobs Act (H.R. 3684

**29** Sigalos, *supra* note 27.

**30** *Id.*

**31** *Id.*

**32** *Id.*

**33** Jerry Brito & Peter Van Valkenburgh, *The ideal regulatory environment for Bitcoin*, Coin Center (2020), https://www.coincenter.org/the-ideal-regulatory-environment-for-bitcoin/ (last visited Dec 30, 2021).

**34** What is a Commodity, Willkie Compliance, https://complianceconcourse.willkie.com/resources/cftc-overview-what-is-a-commodity (last visited Jan 24, 2022).

**35** *Id.*

**36** Concannon, Valdez, and Wink, *supra* note 3.

"Value Premium, Network Adoption, and the Factor Pricing of Crypto Assets."[37]

Since 2015, the CFTC has been active in bringing enforcement actions on virtual currency enterprises when they have strayed from the rules.[38] Using the inverse of the Howey Test and the SEC's analysis of what constitutes a security, to be treated as a commodity cryptocurrencies must have a decentralized network such that no active participant can directly affect and influence the value of the tokens.[39] The use of token sale proceeds (where the money goes and who it goes to), network governance (is there a centralized force), and the existence of a robust, diverse token economy are measured to determine if a network is sufficiently decentralized.[40]

If a token and network manage to qualify as a commodity, it will be subject to the less-intrusive regulation applicable to the commodity markets. Within this space, the CFTC focuses on abuses rather than the pervasive securities regulations seen with the SEC. This stance towards digital assets in particular derives from the CFTC's desire for innovation and development, encouraging communication between innovators and regulators to help maintain their "do no harm" mentality.[41] The CFTC has thus tried to prosecute cases of "fraud, abuse, manipulation, or false solicitations in markets."[42] The majority of enforcement actions have mostly fallen into one or more of these five categories: fraudulent schemes, failure to register with the CFTC, illegal off-exchange transactions, price manipulation, and gatekeepers' violations.[43] CFTC prosecution for fraud provides some comfort for consumers in this marketplace.

# 04

# A CLASSIFICATION FRAMEWORK BASED ON THE ECONOMIC FUNCTIONALITY OF TOKENS

As presented by Cong & Xiao (2021), a useful classification entails four main types of tokens based on their economic functionality: General Payment Tokens, Platform Tokens, product tokens, and cash-flow-based tokens.[44] Within this, the SEC classifies some tokens as securities, and others as not (most notably, utility tokens), which results in some instruments being subject to greater regulation. While the decision between a token being a security token versus a utility token can be quite nuanced and involve more information than just the token's function, a good estimate as to how the token will be treated comes down to its economic functionality.

Beginning with General Payment Tokens, as suggested by the name, these tokens serve as substitutes for fiat money and other liquid assets.[45] Many of these general payment tokens are considered utility tokens by regulatory agencies due to their economic functionality.[46] This stands to reason as currencies and other liquid assets themselves hold value in the way a utility token can.

The next category of token, Platform Tokens, are distinguished due to their purpose of being local means of payment on given platforms. Due to their wide appearance in ICOs, these tokens are generally also thought of as utility

**37** Lin William Cong, Ye Li, and Neng Wang "Tokenomics: Dynamic Adoption and Valuation" (2019) *Review of Financial Studies*, Forthcoming; Lin William Cong, Andrew Karolyi, Ke Tang, and Weiyi Zhao "Value Premium, Network Adoption, and the Factor Pricing of Crypto Assets" (2021), *Working Paper.*

**38** Concannon, Valdez, and Wink, *supra* note 3.

**39** *Id.*

**40** *Id.*

**41** Abe Chernin, Nicole Moran & Simona Mola, *The CFTC's Approach to Virtual Currencies*, The National Law Review (2020), https://www.natlawreview.com/article/cftc-s-approach-to-virtual-currencies (last visited Dec 30, 2021).

**42** *Id.*

**43** *Id.*

**44** Cong & Xiao, *supra* note 9 at 5.

**45** *Id*. at 5

**46** What is a Commodity, *supra* note 34.

 

tokens, providing a service value for a token.[47] A way to justify the claim of Platform Tokens being a form of utility tokens is to think about how these tokens act on their platform as a form of payment. The functionality of a token does not really change between a General Payment Token and a Platform Token just the scope on which it is usable, thereby allowing for a similar utility token labeling. That said, concentrated entrepreneurial effort, especially post-launching the platforms, could cause the tokens to be labeled as securities under the Howey Test. The SEC lawsuits against the Kik/KIN foundation and Telegram/TON foundation are cases in point.

While product tokens are not too common, they act similarly to a corporate coupon or discount voucher, providing a predetermined quantity of products and services for a token.[48] As there is a good or service being exchanged for a token, these tokens fit very well with the current uses ascribed to utility tokens. A popular example of this style of token has been Non-Fungible Tokens or NFTs which allow ownership over digital collectibles. While it is unclear whether most NFTs are currently considered securities, if these were to potentially fractionalize and create shares of a digital good, this would warrant SEC oversight.[49] This shows how close this utility vs security distinction truly is and how easily this style of token (and really any of the types of tokens listed above) can switch between the two classes.

The last type of token explored is cash-flow-based tokens. These tokens are generally what is thought of when discussing security tokens as they grant the holder certain rights to future cash flows from a business.[50] As this clearly passes the Howey Test and acts as essentially tokenized security contracts, they will always be regulated as such.[51]

Between all four types of tokens, based on economic functionality alone, many tokens would be categorized as utility tokens. While this remains true, the ways in which the cryptocurrency grew as well as the decentralization and internal regulation of the network influence the SEC's decision greatly. With the unique features each type of token holds, as well as the diverse approaches to the initialization and use of these tokens, the act of categorization still remains rather unsolidified resulting in the need for holistic approaches to all prongs of the Howey Test.

# 05

# CONCLUSION & FINAL REMARKS

The legislation of cryptocurrencies and virtual currencies in general have been overseen by many different regulatory agencies including federal and state banking authorities, and the IRS, SEC, and CFTC, with each serving its own purpose for different currencies given different categorizations and labels.[52] While the United States seems to be promoting the "do no harm" mentality with a keen interest in innovation, other countries have taken alternative approaches to regulating cryptocurrencies. That said, the White House has decided to step in to coordinate various regulatory agencies in a push for crypto oversight.[53]

As cryptocurrency grows and matures in regulation, it will be interesting to observe the possibility of conversion of a single currency from a security to a commodity and vice versa as the token continues to be offered and regulated based on its current position. With the possibility of a digital asset changing its status from an investment contract to a decentralized commodity, it will be important to understand how the two regulations interact and watch how the different digital assets and markets respond to the changes. The varying approaches to cryptocurrency and their lack of geographic boundaries makes it difficult to predict how the global market may change over time; however, the U.S. seems to be moving in a direction that will promote stronger regulation regardless of how the cryptocurrencies are classified be it as securities or commodities.

**47** Cong and Xiao, *supra* note 9 at 5.

**48** Cong and Xiao, *supra* note 9. at 5

**49** David Morris, *Are NFTs Securities?*, Yahoo (2021), https://www.yahoo.com/now/nfts-securities-164816137.html (last visited Jan 2, 2022).

**50** Cong & Xiao, *supra* note 9 at 6.

**51** *Id*. at 7

**52** U.S. Commodity Futures Trading Commission, *CFTC Backgrounder on Oversight of and Approach to Virtual Currency Futures Markets* (2018), https://www.cftc.gov/sites/default/files/idc/groups/public/%40customerprotection/documents/file/backgrounder_virtualcurrency01.pdf.

**53** Jennifer Epstein, Jenny Leonard & Allyson Versprille, *White House Is Set to Put Itself at Center of U.S. Crypto Policy* Bloomberg (2022) Jan 22. Read more at https://www.bloombergquint.com/business/white-house-is-set-to-put-itself-at-center-of-u-s-crypto-policy.

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