THE ECONOMIC REALITY OF NFT SECURITIES

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ABSTRACT

Non-Fungible Tokens (NFTs) are used in numerous markets for collectibles, art, securities, and commodities. These are different markets, and there is no regulatory framework for all NFTs. To determine a proper legal regime, it is essential to locate the market to which an NFT belongs. This task requires a deep understanding of the economic realities of the associated rights, assets, and transactions. Economic-reality-based interpretations should provide a solid footing for better regulation of NFTs in the United States and other jurisdictions grappling with NFT regulation. The new cryptoasset regime in the EU already incorporates a "substance over form" approach. In the US, courts have been successfully applying the *Howey* test to examine transactions and schemes and establish whether securities law should apply to cryptoassets. In 2023, the SEC and a US federal district court applied the *Howey* test to demonstrate why and how securities law built for legacy markets where mainstream assets are fungible could apply to transactions in non-fungible assets. The decisions are an example of establishing economic realities of transactions with novel assets regardless of the underlying technologies on which the assets are built. An economic reality approach should help courts and other policymakers ascertain to which market an NFT belongs and which corresponding legal regime should govern.

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TABLE OF CONTENTS

I. INTRODUCTION

The word "crypto" has acquired a negative connotation in 2022, following several notable collapses of crypto-related entities, arrests of their founders, and instances of blatant fraud.[1] These negative developments, however, do not prove that cryptography as a technology or assets secured through cryptography and transferred via distributed ledgers ("cryptoassets" and "digital assets") have neither place nor value in modern markets.[2] The scandals merely demonstrate that countries need a better legal regime to incorporate productive technological innovations into modern economic transactions. As technologies evolve, policymakers face an endless challenge of designing new rules or applying existing regulations to emerging technology-enabled markets and assets.

One of the technology-based assets that can generate economic value but is tricky to regulate is Non-Fungible Tokens (NFTs).[3] NFTs are a technology-enabled innovation that ensures digital uniqueness of tokens, which may be used to represent bundles of rights with respect to assets and services in the virtual or non-virtual environment.[4] For the purposes of this chapter, the most

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[1] *See, e.g.,* Eric Wallerstein, *FTX and Sam Bankman-Fried: Your Guide to the Crypto Crash,* WALL ST. J. (Jan. 19, 2023), https://www.wsj.com/articles/ftx-and-sam-bankman-fried-your-guide-to-the-crypto-crash-11669375609.

[2] Relevant definitions of the standard terms, including "blockchain," "tokens," "cryptoassets," and "distributed ledger technology," are discussed throughout this Handbook, particularly in the Introduction and Chapters 1 and 2.

[3] "[A]n NFT as an individually numbered crypto-token which contains an internal dataset and/or is linked to an external dataset. That individually numbered crypto-token can also be linked to legal rights (including in relation to the use of the internally or externally linked information) external to the crypto-token system." *See* UK LAW COMM'N, DIGITAL ASSETS: CONSULTATION PAPER, CONSULTATION PAPER 256, 318 (2022), https://s3-eu-west-2.amazonaws.com/lawcom-prod-storage-11jsxou24uy7q/uploads/2022/07/Digital-Assets-Consultation-Paper-Law-Commission-1.pdf.

[4] *See, e.g.,* Kristen E. Busch, *Non-Fungible Tokens (NFTs),* CONG. RSCH. SERV., R47189 1, 12–17 (July 20, 2022), https://crsreports.congress.gov/product/pdf/R/R47189 (defining the concept of NFTs and discussing legal implications, including copyright issues, consumer fraud, and other concerns that undermine the value of this technology); Michael Dowling, *Fertile Land: Pricing Non-Fungible Tokens*, 44 FIN. RSCH. LETTERS 1, 1 (2022) ("An NFT is a blockchain-recorded right to a digital asset. This can be anything digital; an image, a video, a song, a digital trading card of your favourite baseball player, a coded piece of virtual land, or a virtual tunic for your virtual character to wear while he explores his virtual land"); Joshua A.T. Fairfield, *Tokenized: The Law of Non-Fungible Tokens and Unique Digital Property*, 97 IND. L.J. 1261, 1266, 1273 (2022) ("Non-fungible tokens can be used to create digital artwork that can be bought, sold, and owned like a physical sculpture, or a database of real estate in which ownership is managed by electronic deeds that can be passed from one person to another with low or no transaction costs"). *See also* Juliet M. Moringiello & Christopher K. Odinet, *The Property Law of Tokens*, 74 FLA. L. REV. 607 (2022)

relevant use of this technology is in financial markets: NFTs may, theoretically, be used to record transfers of ownership of assets such as commodities and securities and/or be tethered to the bundles of rights associated with commodities and securities.[5]

The very concept that transfers can be accomplished through, and rights and assets represented by, some form of tokens goes back centuries. These technologies naturally evolved from one period to another, with the tokenization practices involving first pieces of paper and later on digital records.[6] "Tokenized" payment obligations (negotiable instruments) have been in use for hundreds of years and become part of *lex mercatoria*; tokenized (originally "certificated") securities have been known for centuries.[7] Similar uses of blockchain technology and assets such as NFTs continue these market practices.

NFTs can be used in a somewhat eclectic congeries of markets, including collectibles, art, securities, commodities, and others. As such, these are different markets, and there is no regulatory regime for all NFTs. Various jurisdictions struggle with classifying NFTs. As of this

(discussing tokenization and questioning the value of NFTs); Nizan Geslevich Packin, *Financial Inclusion Gone Wrong: Securities and Cryptoassets Trading for Children*, 74 HASTINGS L.J. 349, 381–82 (2023) (discussing NFT uses).

[5] Fairfield, *supra* note 4, at 1272–73 ("Often, an NFT stands for ownership of something not directly stored on the blockchain–a piece of digital art, for example. So a token representing digital art might contain a URL pointing to the art and a hash of the art file. In this way, an NFT might convey an ownership interest in a piece of digital art, an asset in an online game, a card in a collectible trading card game (think rare baseball cards here), or a plot of land in a virtual world. Or, a token might convey rights in a real-world asset, in an RFID-linked consumer good, or a car that only unlocks and drives for the token owner"). *See also id.* at 1284; Carol R. Goforth, *How Nifty! But Are NFTs Securities, Commodities, or Something Else?*, 90 UMKC L. Rev. 775, 777 (2022) [hereinafter Goforth, *How Nifty*] ("NFTs can be based on all kinds of things. These can include an image (or collage of images), a video, a highlight, a meme, a tweet, a piece of music or anything else—particularly creations that can be digitized"); Andres Guadamuz, *The Treachery of Images: Non-fungible Tokens and Copyright*, 16 J. OF INTELL. PROP. L. & PRAC. 1367 (2021) (examining the UK perspective and underscoring uncertainties of using NFTs for the transfer of rights); David Yermack, *Corporate Governance and Blockchains*, 21 REV. FIN. 7, 8 (2017) (observing that blockchain technology can accommodate securities markets).

[6] *See, e.g.*, Moringiello & Odinet, *supra* note 4, at 618–21 ("The tokenization of securities also has a long history, and, like negotiable instruments, developed to address a particular economic problem . . . [I]n the early 1600s, the Dutch East India Company issued (for what is believed to be the first time ever) true equity shares to the public . . . [Today t]his concept—the idea of being the ultimate beneficial owner of a token through the indirect holding of that token via an account with a securities broker—is memorialized in the UCC through Article 8's rules on securities entitlements, and this system dominates public securities trading to this day").

[7] *Id.*

writing, for example, congressional bills either exclude non-fungible assets and/or call for an inquiry into NFTs,[8] and the European Union has adopted a special cryptoassets regime that largely excludes NFTs.[9]

As I argued elsewhere, to determine a suitable legal regime, it is essential to locate the market to which an NFT belongs.[10] This task requires a deep understanding of the economic realities of the associated rights, assets, and transactions. In securities markets, US courts have been successfully applying such economic reality test to establish whether cryptoassets are securities.[11] The test was honed by the Supreme Court in *SEC v. W.J. Howey Co.* about 80 years ago.[12] *Howey* aims to provide a systematic foundation for offerings of financial instruments under different labels and establishes when transactions and schemes in effect involve securities (namely, "investment contracts").[13] As I will demonstrate in this chapter, *Howey* compellingly establishes the economics of transactions.[14]

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[8] *See, e.g.,* The Financial Innovation and Technology for the 21st Century Act, H.R. 4763, 118th Congress (2023).

[9] Regulation (EU) 2023/1114 of the European Parliament and of the Council of 31 May 2023 on markets in crypto-assets, and amending Regulations (EU) No 1093/2010 and (EU) No 1095/2010 and Directives 2013/36/EU and (EU) 2019/1937, 2023 O.J. (L150/40) 42–43 [hereinafter MiCA] (The Preamble states, "[t]his Regulation should not apply to crypto-assets that are unique and not fungible with other crypto-assets, including digital art and collectibles. The value of such unique and non-fungible crypto-assets is attributable to each crypto-asset's unique characteristics and the utility it gives to the token holder. Nor should this Regulation apply to crypto-assets representing services or physical assets that are unique and non-fungible, such as product guarantees or real estate. While unique and non-fungible crypto-assets might be traded on the marketplace and be accumulated speculatively, they are not readily interchangeable and the relative value of one such crypto-asset in relation to another, each being unique, cannot be ascertained by means of comparison to an existing market or equivalent asset. Such features limit the extent to which those crypto-assets can have a financial use, thus limiting risks to holders and the financial system, and justifying their exclusion from the scope of this Regulation").

[10] Yuliya Guseva, *Less Is More: Why NFTs Don't Need a New Regulatory Regime* (Sept. 24, 2023) (unpublished manuscript) [hereinafter Guseva, *Less Is More*] (on file with author).

[11] *See generally* Yuliya Guseva, *The SEC, Digital Assets, and Game Theory*, 46 J. OF CORP. LAW 629 (2021) [hereinafter Guseva, *Game Theory*] (discussing the application of the *Howey* test in crypto-related enforcement actions).

[12] SEC v. W.J. Howey Co., 328 U.S. 293, 298–99 (1946).

[13] *Id.* ("[A]n investment contract for purposes of the Securities Act means a contract, transaction or scheme whereby a person invests his money in a common enterprise and is led to expect profits solely from the efforts of the promoter or a third party"). *See also* Carol R. Goforth, *Regulation of Crypto: Who is the SEC Protecting?*, 58 AM. BUS. L.J. 643, 649–53 (2021) [hereinafter Goforth, *Regulation of Crypto*] (examining the meaning and application of *Howey* to crypto markets).

[14] In a recent cease-and-desist order and a decision on a motion to dismiss, the Securities and Exchange Commission (SEC) and a US district court, respectively, applied this economic reality test to examine schemes involving offers and

Admittedly, the application of the *Howey* test to crypto has been criticized as far-reaching and uncertain.[15] These criticisms of the test's *application* may be explained by the lack of a comprehensive regulatory regime tailored to all forms of cryptoassets and by the flaws of what has been described as "regulation by enforcement" in the crypto space.[16] By no means do these arguments prove that the *Howey* framework is inapplicable to all cryptoassets and NFT markets, particularly without any guidance from the US Congress.

There is no inconsistency here: the test *per se* may be fundamentally sound, and courts may apply *Howey* to assay the economics of transactions involving novel assets, including cryptoassets. By way of explanation, as I argued in other work, NFTs should not be viewed as an independent asset class but as assets accompanying other assets that I called the *anchor*. In this framework, the main issue for courts and market participants is to determine the law governing the anchor assets and transactions: if the anchor is a security, securities law should apply; if the anchor is art, other relevant legal regimes are applicable.[17] This is precisely what *Howey* does by

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sales of NFTs. *See* Friel v. Dapper Labs, Inc., No. 21-CV-5837, 2023 WL 2162747 (S.D.N.Y. 2023); In the Matter of Impact Theory, LLC, Securities Act Release No. 11226 (Aug. 28, 2023). Both will be examined in this chapter.

[15] *See, e.g.,* Brief for The Chamber of Digital Commerce as Amici Curiae, p. 8, SEC v. Ripple Labs, Inc., 2023 WL 3477552 (S.D.N.Y. 2023) ("[T]he dynamic nature of the *Howey* analysis makes it a particularly challenging framework to apply to secondary transactions involving fast-moving and ever changing technology businesses, especially those that incorporate the native digital asset essential to the operation of the blockchain network. The lack of clarity regarding secondary transactions in digital assets also impacts the blockchain industry as a whole"); Goforth, *Regulation of Crypto*, *supra* note 13, at 649; Lewis Rinaudo Cohen et al., *The Ineluctable Modality of Securities Law: Why Fungible Crypto Assets Are Not Securities* 107 (Nov. 10, 2022) (unpublished manuscript), https://dx.doi.org/10.2139/ssrn.4282385.

[16] For a general discussion of this approach, see Chris Brummer, Yesha Yadav & David Zaring, *Regulation by Enforcement* (2023) (unpublished manuscript), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4405036; Carol R. Goforth, *Regulation by Enforcement: Problems with the SEC's Approach to Cryptoasset Regulation*, 82 MD. L. REV. 107 (2022); Guseva, *Game Theory*, *supra* note 11.

[17] Guseva, *Less Is More, supra* note 10, at 2 ("It is appropriate to conceptualize NFTs as 'complementary goods' (or 'complements') that may be sold separately but exhibit a positive interaction with some underlying assets or rights. The logic of complements suggests that possessing both increases their consumption value. An oft cited example is computers and software. Yet, NFTs are more than simple cross-category complements like hardware and software. NFTs are lines of code that may have no intrinsic value *per se* but mainly derive value from their complements and, simultaneously, provide additional utility to the complements. Their complements thus become their anchors, and NFTs *accompany* various *anchor* assets across industries and markets. For example, a digital picture could be the anchor, and an NFT would be the accompanying asset. NFTs help users interact with the anchor assets, facilitate ownership transfers, and/or serve as evidence of transfers and instructions to transfer the anchor from one party to

providing a framework for ascertaining what a promoter offers and promises to investors. Note also that the test has proven to be durable over the decades and can be modernized. Henderson and Raskin, for example, proposed tools of construction to operationalize *Howey* in the context of cryptoassets.[18]

Self-evidently, the Congress and regulators such as the SEC, which has broad exemptive authority,[19] may determine how the new asset classes and technologies should be regulated. Until that happens, the *Howey* test will continue to guide factfinders and market participants in examining whether NFTs are securities under conventional securities regulation.

With these principles in the background (namely, the need for an economic reality analysis applied to NFTs as assets accompanying other assets, rights, and transactions), this chapter will first delineate the legal framework that broadly applies to NFTs. The chapter will then proceed to NFTs in securities markets. The analysis will conclude by reviewing a 2023 federal district court ruling that applied the *Howey* analysis to NFTs.

II. THE OVERARCHING LEGAL FRAMEWORK

Different functionalities of NFTs are tailored to a variety of marketplaces and trigger diverse legal regimes.[20] The markets for collectibles and art touch upon intellectual property law,

another. Purchasers value NFTs, *i.e.,* lines of code, for these uses. In the end, the NFTs enhance the utility of the anchor itself. Clearly, as accompanying assets, NFTs should follow the laws of their anchor markets. If it is a market for securities, relevant NFTs should be regulated as securities; if it is a market for digital baseball cards, the associated NFTs would fall under the laws applied to transactions in collectibles").

[18] M. Todd Henderson & Max Raskin, *A Regulatory Classification of Digital Assets: Toward an Operational Howey Test for Cryptocurrencies, ICOs, and Other Digital Assets,* 2019 COLUM. BUS. L. REV. 443, 460–69 (2019).

[19] Securities Exchange Act of 1934, 15 U.S.C. § 78mm (1934).

[20] UK LAW COMM'N, DIGITAL ASSETS, *supra* note 3, at 319 ("So NFTs are as variable in the rights they provide as any other thing that may be bought. NFTs as crypto-tokens have a reasonably straightforward and simple structure. But NFTs as 'cryptoassets' – a crypto-token linked to some thing or rights external to the crypto-token system – are incredibly varied and diverse. We consider that conceptualising NFTs in this way means that the design principles and legal structuring possibilities for the medium become much clearer. NFTs can become a powerful technological structure that can be used to link to – and to transfer – other legal rights to things external to crypto-token systems. This is not necessarily a problem for the NFT marketplace or for market participants or for the law. Instead, NFTs present an opportunity to iterate an experiment on novel legal structures within the online world").

property law, contract law, and sales law, among others.[21] In transactions with assets that are deemed securities, securities law should control.

In determining a legal regime, one starting point is whether to consider NFTs (and other tokens) as a form of personal property. These views are developing in both the US and Europe.[22] The Uniform Law Commission and the American Law Institute in the US have already embraced this approach: a token, including an NFT, is a line of code that can be deemed property.[23] The Uniform Commercial Code (UCC) covers NFTs (as a form of a "controllable electronic record" defined as "a record stored in an electronic medium that can be subjected to control").[24] Although it is hard to predict how fast these approaches to tokens as a form of property could be fully adopted, ten US states have already enacted the 2022 amendments to the UCC, and about 20

[21] *See, e.g.*, Stacey M. Lantagne, *Of Disaster Girl and Everydays: How NFTs Invite Challenging Copyright Assumptions Around Creator Support*, 13 HARV. J. SPORTS & ENT. L. 265 (2022) (applying the copyright framework to NFT minting and auctioning); Tonya M. Evans, *CryptoKitties, Cryptography, and Copyright*, 47 AM. INTELL. PROP. L. ASS'N Q.J. 219, 262 (2019) ("Beyond obvious common services like birth, death, marriage, and real property records, the power of NFTs to tokenize copyright interests (including fractional interests), encoded with immutable instructions, would be of great use to the Copyright Office, for example. In addition to the basic information collected during the registration process, use of the NFT standard for both pure UGAs and tokenized copyright interests could streamline registration, remove barriers to the registration process, aid in proof of ownership, provide evidence of relevant dates, automate and facilitate chain-of-ownership (and other interests), and downstream licensing and other transfers"); Fairfield, *supra* note 4, at 1299–1306 (discussing the application of sales law, contract law, licensing, and copyright law); UK LAW COMM'N, DIGITAL ASSETS, *supra* note 3, at 311 ("It seems likely that NFTs will play an increasingly important role in modern online interactions. In particular, we think that NFTs will take a leading, exploratory role in establishing property rights in data objects in mainstream and retail use. Beyond that, perhaps the most radical legal development that NFTs could bring about is a change in how the market, market participants, and the legal system operate and transact with respect to intellectual property rights").

[22] *See, e.g.,* UK LAW COMMISSION, DIGITAL ASSETS: FINAL REPORT, HC 1486, 44 (2023) ("Courts have consistently concluded that certain things (often digital assets) are capable of being objects of personal property rights, even where the thing in question does not neatly fit within either of the traditionally recognised categories of thing to which personal property rights can relate. The courts have done so, either expressly or impliedly, in respect of milk quotas, European Union carbon emission allowances ('EUAs'), export quotas, waste management licences, and a wide variety of crypto-tokens, including NFTs"); *id*. at 2 ("We demonstrate in this report that the law of England and Wales has proven itself sufficiently resilient and flexible to recognise some digital assets as capable of being things to which personal property rights can relate. We conclude that the law in this respect is now relatively certain and that most areas of residual legal uncertainty are highly nuanced and complex"); *id.* at 12 ("Our first recommendation for statutory intervention seeks merely to confirm and support what we consider to be the existing position at law. That is, that being neither a thing in possession nor a thing in action does not prevent a digital asset from being capable of being a thing to which personal property rights can relate").

[23] Guseva, *Less Is More, supra* note 10.

[24] U.C.C. § 12-102(a) (AM. L. INST. & UNIF. L. COMM'N 2022).

states have introduced the amendments as of this writing.[25] The rate of adoptions suggests that the process is gathering steam.

With respect to securities markets, the drafters of the UCC have concluded that the term "security" under Article 8 of the UCC[26] and the term "controllable electronic record" are different animals. Nevertheless, controllable electronic records "might play a role in the facilitating transactions in Article 8 securities."[27] For example, the records may be used and operate as instructions to issuers of securities. The drafters of the UCC provide the following pertinent example:

> A Delaware corporation (D Corp) issues shares of stock and maintains books and records evidencing the registered ownership of the shares. Because the shares are not represented by security certificates, they are uncertificated securities. Pursuant to the applicable law and the organic documentation of D Corp, D Corp creates, or causes to be created, controllable electronic records (CERs)—"tokens"—to facilitate transfers of the shares. Also pursuant to that law and documentation, the transfer of control of a token on the platform on which the token is recorded constitutes an instruction to D Corp, as issuer, for the transfer of registration of the share(s) represented by the token to the transferee of control. Following receipt of the instruction upon transfer of control of a token, D Corp transfers registration of the share(s) on its books and records

[25] *UCC, 2022 Amendments*, UNIF. L. COMM'N (2022), https://www.uniformlaws.org/committees/community-home?communitykey=1457c422-ddb7-40b0-8c76-39a1991651ac.
[26] U.C.C. § 12-102 cmt. 2 (AM. L. INST. & UNIF. L. COMM'N 2022) ("A controllable electronic record is not itself a 'security,' defined in part in Section 8102(a)(15) as 'an obligation of an issuer or a share, participation, or other interest in an issuer or in property or an enterprise of an issuer.' It also is not 'a share or similar equity interest,' an 'investment company security,' or 'an interest in a partnership or limited liability company.' See Section 8-103(a), (b), and (c)").
[27] U.C.C. § 8-102 cmt. 18 (AM. L. INST. & UNIF. L. COMM'N 2022).

> . . . Although Article 12 governs the tokens (as CERs) and the transfer of control thereof, other law, including Delaware corporate law and Delaware Article 8 (and Article 9 of the relevant jurisdiction, if applicable) governs rights in the uncertificated securities and the transfer of registration.[28]

The outcome (*e.g.*, whether and how transfers of controllable electronic records would represent transfers on the issuer's books) "would depend on the terms of . . . the underlying organic laws,"[29] Article 8, and other relevant legal regimes. These examples illustrate how the UCC aims to bifurcate the treatment of tokens into property law *and* other legal regimes whose application is embedded into or triggered by the tokens and transactions with tokens.

Note that the drafters have achieved this result in a technology-agnostic way. The technology-neutral and future-oriented UCC does not mandate whether ERC-20 (the fungible token standard on Ethereum) should be preferred to ERC-721 (the traditional NFT standard on Ethereum).[30] The only constant variable in technology is change, and separating out changeable technologies from the underlying assets and relevant legal regimes may enable digital assets ("controllable electronic records") to be used in different markets, including securities and commodity markets.

III. NFTs AS SECURITIES AND COMMODITIES

The current infrastructure for NFT creation ("minting"), listing, and trading differs from the infrastructure of legacy markets for commodities and securities.[31] NFT markets may also suffer

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[28] *Id*.
[29] *Id*.
[30] *See generally Token Standards,* ETHEREUM (Aug. 1, 2023), https://ethereum.org/en/developers/docs/standards/tokens/.
[31] *See, e.g., What Fees Do I Pay on OpenSea?*, OPENSEA, https://support.opensea.io/hc/en-us/articles/14068991090067-What-fees-do-I-pay-on-OpenSea- (last accessed Sept. 16, 2023); Ollie Leech, *How to Make, Buy and Sell NFTs,* COINDESK (Feb 9. 2023), https://www.coindesk.com/learn/how-to-create-buy-and-sell-nfts/.

from comparatively low liquidity and efficiency compared with securities exchanges. None of these factors, however, should exclude NFTs from the scope of securities or commodity regulation.

In the US, commodity markets and derivatives on commodities fall within the ambit of the Commodity Exchange Act.[32] The Act defines the term "commodity" by providing a list of articles and goods, including "wheat, cotton, rice," *etc*., "in which contracts for future delivery are presently or in the future dealt in."[33] In theory, since futures on NFTs may be created (and it is certainly a possibility),[34] this definition covers NFTs.[35] The agency in charge of administering and enforcing the Commodity Exchange Act is the US Commodity Futures Trading Commission (CFTC). Bringing NFTs within the scope of the Act means that the CFTC will have antifraud and anti-manipulation enforcement authority in spot markets and regulatory authority in NFT derivatives markets.[36]

In fact, commodities are already tokenized with NFTs. The Mattereum Asset Passport NFT is a helpful example of tokenization: the "Passport NFT . . . aims to tokenise gold bars and includes a set of contractual warranties about the gold bar associated with the NFT. The NFT

[32] Commodity Exchange Act of 1936, 7 U.S.C. § 1 *et seq*.
[33] 7 U.S.C. § 1a (9).
[34] Futures on NFTs are not mainstream but possible. *See, e.g.,* Jack Kim et al., *NFT Perpetual Futures* (Aug. 4, 2023) (unpublished manuscript), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4525785 (suggesting that perpetual futures could improve NFT market liquidity and market efficiency); for a specific example, *see Trading Futures Anytime*, SYNFUTURES, https://www.synfutures.com/.
[35] *But see* Goforth, *How Nifty*, *supra* note 5, at 793–94 ("Given that NFTs have value and can be sold, and therefore converted into, other currencies, they could easily be classified as commodities. There is, however, an argument that NFTs are outside scope of the CFTC's authority. This depends on the meaning of the phrase 'services, rights, and interests . . . in which contracts for future delivery are presently or in the future dealt in' . . . Unfortunately, it is not at all clear that NFTs will be lumped in with fungible cryptoassets, because they work so differently. If NFTs are treated as a distinct kind of asset, there are certainly no futures being traded in NFTs at this time, meaning that the CFTC would have no jurisdiction over fraud related to NFTs").
[36] COMMODITY FUTURES TRADING COMM'N, DIV. OF ENF'T, ENFORCEMENT MANUAL 2 (2020) ("[T]he CFTC has exclusive jurisdiction over futures, commodity options, and leverage contracts, with certain exceptions. The CFTC also has exclusive jurisdiction over certain swaps contracts and broad-based security index products. Certain anti-fraud and other specified provisions of the CEA apply to retail forex transactions and retail commodity transactions entered into on a leveraged, margined, or financed basis. In addition, the CFTC has authority to prosecute fraud and manipulation in connection with commodities in interstate commerce").

specifically identifies the gold bar to which it is linked, the vault location, the custodian, the insurance details and certificate, a dispute resolution mechanism, and a carbon-offsetting certificate in relation to the gold bar."[37]

When an NFT is a security, however, it will be within the remit of securities law and the SEC will claim jurisdiction. Two scenarios are theoretically possible here. First, the way an NFT is offered and sold to investors may fall under securities law, even though the NFT itself may be related to non-securities. Second, an NFT *per se* may represent or be tethered to a security.

The first option presents crucial doctrinal challenges and calls for an analysis of the economic realities of transactions, the result that the *Howey* test aims to achieve.[38] The SEC used *Howey* in its first cease-and-desist order issued in August 2023 against Impact Theory, LLC.[39] In the order, the SEC concluded that the respondent *offered* and *sold* its NFTs as securities. The SEC did not examine the technical aspects of non-fungibility and generally referenced the *Howey* test without providing a detailed doctrinal analysis.[40] The order effectively described the transactions at issue as a capital raise through a sale of NFTs. According to the SEC, investors in those transactions expected to obtain profit from the managerial efforts of the respondent. For example, in light of the company's statements "numerous prospective and actual purchasers of KeyNFTs stated on Impact Theory's Discord channels that they viewed KeyNFTs as investments

[37] UK LAW COMM'N, DIGITAL ASSETS, *supra* note 3, at 295.
[38] A more detailed discussion of *Howey* will follow in Part IV. *See also* Goforth, *How Nifty*, *supra* note 5, at 790 ("For NFTs accompanied by an exclusive license or transfer of intellectual property rights in the underlying digital asset, where the purchase is for personal enjoyment or appreciation and there is no further promotion or activity by the creator, it seems unlikely that the transaction will be classified as having involved the sale of a security. On the other hand, where multiple purchasers acquire non-exclusive licenses and limited rights in the underlying asset, and particularly where the creator or a promoter works to increase the value of or interest in the creator's work, and the purchasers are motivated by the hope that their NFT will increase in value, the SEC could conclude that the NFTs in question are securities").
[39] In the Matter of Impact Theory, LLC, Securities Act Release No. 11226 (Aug. 28, 2023).
[40] *Id.*

into the company and understood Impact Theory's statements to mean that the company's development of its projects could translate to appreciation of the KeyNFTs' value over time."[41]

Given the fact-specific nature of the analysis of the order, attempts at generalizing its conclusions in relation to the whole market for diverse and variegated NFTs may be futile.[42] In this sense, SEC enforcement targeting NFT firms illustrates why the application of the *Howey* test may generate uncertainty and send mixed signals to the market, even though the test *per se* remains valid. Interpretational issues matter greatly in these cases, and so do the attitude and policies of the SEC.

On the one hand, the *Impact Theory* order does not appear to overclassify all NFTs as securities but focuses on the relevant facts and transactional analysis. This may suggest that the SEC recognizes that some NFTs are offered and sold as securities, while others are not. On the other hand, two weeks after the Impact Theory order, the SEC charged Stoner Cats 2 LLC, an NFT company, with violations of securities law and offering unregistered securities.[43] Just like in the order against Impact Theory, the SEC relied on the *Howey* analysis. Two Commissioners dissented from the orders and observed, *inter alia,* that "[t]he application of the *Howey* investment contract analysis in this matter lacks any meaningful limiting principle."[44]

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[41] *Id.* at 4.

[42] The two dissenting SEC Commissioners commented, for example, that the SEC does not "routinely bring enforcement actions against people that sell watches, paintings, or collectibles along with vague promises to build the brand and thus increase the resale value of those tangible items." Hester M. Peirce & Mark T. Uyeda, Comm'rs, U.S. Sec. & Exch. Comm'n, NFTs & the SEC: Statement on Impact Theory, LLC (Aug 28, 2023), https://www.sec.gov/news/statement/peirce-uyeda-statement-nft-082823 (also observing that "[e]ven though we believe strongly that adults should be able to spend their money as they choose, we share our colleagues' worry about the type of hype that entices people to spend almost $30 million for NFTs seemingly without having a clear idea about how they will use, enjoy, or profit from them. This legitimate concern, however, is not a sufficient basis to pull the matter into our jurisdiction. The handful of company and purchaser statements cited by the order are not the kinds of promises that form an investment contract").

[43] In the Matter of Stoner Cats 2, LLC, Securities Act Release No. 11233 (Sept. 13, 2023).

[44] Hester M. Peirce & Mark T. Uyeda, Comm'rs, U.S. Sec. & Exch. Comm'n, Collecting Enforcement Actions: Statement on Stoner Cats 2, LLC (Sept 13, 2023), https://www.sec.gov/news/statement/peirce-uyeda-statement-stonercats-091323#_ftn1.

All in all, the application of *Howey* in NFT enforcement may be ambiguous: enforcement actions produce settlements, and cease-and-desist orders offer arguments and analyses that are less detailed than those in court decisions. It becomes hard to generalize the lessons from enforcement actions when NFTs are linked to web series such as Stoner Cats or other artistic projects.

In comparison to this scenario, a situation where an NFT itself may be a security (more precisely, an asset tethered to a particular security) is simpler. Creating NFT-securities is an option recognized by scholars,[45] and there is no reason why the technology behind NFTs cannot be used for issuing securities. NFT security offerings can be done through bespoke arrangements, massive distributions of tokens of the same class, or issuances of fractional NFTs. Firms can retrofit specific technical standards to suit their business and financial needs.

For example, on Ethereum, firms may use ERC-20[46] for fungible tokens and ERC-721[47] for NFTs, as well as ERC-1155 (a multi-token standard which "allows for each token ID to represent a new configurable token type").[48] The fungible-token ERC-20 standard could be applied to tokenize shares of stock or other financial instruments.[49] ERC-721 and ERC-1155 standards, however, might also be used for issuing securities, such as equity, bonds, and warrants, or for fractionalizing NFTs to create securities.[50]

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[45] Kimberly A. Houser & John T. Holden, *Navigating the Non-Fungible Token*, 2022 UTAH L. REV. 891, 919 (2022) ("Where an NFT is created to represent ownership in a business or other entity with an expectation of profit from the efforts of that business or other entity, it would likely meet the *Howey* test. Another way the sale of NFTs could implicate and violate securities laws is through the selling of fractional shares of ownership in an asset").

[46] Fabian Vogelsteller & Vitalik Buterin, *ERC-20: Token Standard*, ETHEREUM IMPROVEMENT PROPOSALS (Nov. 19, 2015), https://eips.ethereum.org/EIPS/eip-20.

[47] William Entriken et al., *ERC-721: Non-Fungible Token Standard*, ETHEREUM IMPROVEMENT PROPOSALS (Jan. 24, 2018), https://eips.ethereum.org/EIPS/eip-721.

[48] Witek Radomski et al., *ERC-1155: Multi Token Standard*, ETHEREUM IMPROVEMENT PROPOSALS (June 17, 2018), https://eips.ethereum.org/EIPS/eip-1155.

[49] Corwin Smith, *ERC-20 Token Standard*, ETHEREUM (May 30, 2023), https://ethereum.org/en/developers/docs/standards/tokens/erc-20/.

[50] *See, e.g.,* Houser & Holden, *supra* note 45; Guseva, *Less is More, supra* note 10 (discussing bond offerings); Will Gottsegen, *Some NFT Sales Could Be Illegal: SEC Commissioner Hester Peirce*, DECRYPT (Mar. 26, 2021),

Markets can adapt various token standards to different uses, transforming assets in the process and moving them from one legal regime to another. In this environment, technical standards remain relevant but not dispositive. As Kappos and co-authors emphasized in this respect, "while fungibility is a useful technical concept, it is not an adequate lodestar for classifying tokens for the purpose of applying legal mechanics."[51]

Looking past fungibility, however, is not an approach that has garnered uniform acceptance. Recall, for instance, that in 2023 the EU created a new regime (MiCA) that effectively performs a gap-filling function addressing cryptoassets that the EU financial regulation does not explicitly encompass—utility tokens and stablecoins.[52] Roughly generalizing, the MiCA and EU financial regulation are coterminous with the US commodity and securities laws, although, of course, there is no analog to the MiCA in the US yet.

The MiCA excludes from its ambit unique NFTs linked to art, collectibles, or real estate, among others. Understandably, the laws applicable to these examples would hardly be on all fours with the laws for stablecoins, for instance. The MiCA drafters recognized that fact. The resulting interpretation is that truly non-fungible tokens should fall outside the scope of the EU

https://decrypt.co/62989/sec-hester-peirce-nfts; Brian Elzweig & Lawrence J. Trautman, *When Does a Nonfungible Token (NFT) Become a Security?*, 39 GA. ST. U. L. REV. 295, 328–29 (2023) ("Fractionalizing ownership brings an element of fungibility to f-NFTs. By the nature of f-NFTs, investors are likely engaged in a common enterprise because of their investment in a single token. By selling shards of an f-NFT, both horizontal and vertical commonality may be met. Horizontal commonality may be met because there would be a pool of investors (other shard owners) whose investments are tied to each other in the underlying NFT. Vertical commonality may also be met because the seller of the shard may retain control of the NFT, and therefore, the investor and the seller's fortunes become intertwined"); Ekin Genç, *How Can You Share an NFT? Fractional NFTs Explained*, COINDESK (May 11, 2023), https://www.coindesk.com/learn/how-can-you-share-an-nft-fractional-nfts-explained/.

[51] David J. Kappos et al., *Fuzzy Tokens: Thinking Carefully About Technical Classification Versus Legal Classification of Cryptoassets*, BERKELEY TECH. L. J. 1, 2 (2023).

[52] MiCA, *supra* note 9. MiCA's ambit encompasses only assets that fall outside traditional financial regulation.

directives.[53] If, however, an NFT is fractionalized, the new fungible tokens would be covered by the EU directives.[54]

The Preamble to the MiCA also contains a general statement suggesting that fungibility represents grounds for regulation:

> [T]his Regulation should also apply to crypto-assets that appear to be unique and non-fungible, but whose de facto features or whose features that are linked to their de facto uses, would make them either fungible or not unique. In that regard, when assessing and classifying crypto-assets, competent authorities should adopt a substance over form approach whereby the features of the crypto-asset in question determine the classification and not its designation by the issuer.[55]

Fungibility, thus, is turned into a pivotal criterion similar to that of the conventional markets where transferable securities are routinely issued in classes.[56] From a market perspective, this disjunctive approach focusing on fungibility *may* (and let me emphasize *may*) fragment the market by placing existing and future assets into either one bucket or the other. This fragmentation could be exploited by firms using NFTs in some cases and fungible tokens in others primarily to evade regulation. From a legal perspective, the approach *may* create a future

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[53] *See, e.g.,* Claudia Di Bernardino et al., *NFT – Legal Token Classification*, EUR. UNION BLOCKCHAIN OBSERVATORY & F. NFT REPS. (July 24, 2021), https://www.eublockchainforum.eu/sites/default/files/research-paper/EUBOF%20-%20NFT%20-%20Token%20Classification%20Latam.pdf.
[54] *Id.*
[55] MiCA, *supra* note 9, at 43.
[56] *See, e.g.*, Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial Instruments and amending Directive 2022/92/EC and Directive 2011/61/EU, 2014 O.J. (L173/349) 385 ("'[T]ransferable securities' means those classes of securities which are negotiable on the capital market, with the exception of instruments of payment, such as: (a) shares in companies and other securities equivalent to shares in companies, partnerships or other entities, and depositary receipts in respect of shares; (b) bonds or other forms of securitised debt, including depositary receipts in respect of such securities; (c) any other securities giving the right to acquire or sell any such transferable securities or giving rise to a cash settlement determined by reference to transferable securities, currencies, interest rates or yields, commodities or other indices or measures").

loophole in the generally comprehensive regulation of the EU. As a result, preventing a strategic lapse of judgment on fungibility becomes paramount.[57]

I emphasized *may* above to show that my concerns could be mitigated by the safeguards embedded in the MiCA. First, the EU left the door open to future NFT regulation. The European Commission is required to submit a report to the European Council and European Parliament. The Report must include, among other items, "an assessment of the development of markets in unique and non-fungible crypto-assets and of the appropriate regulatory treatment of such crypto-assets, including an assessment of the necessity and feasibility of regulating offerors of unique and non-fungible crypto-assets as well as providers of services related to such crypto-assets."[58] Second, there is a chance that in some cases traditional financial regulation may apply even if MiCA does not cover NFTs.[59] Finally (and more importantly), in the passage cited above, the drafters of the MiCA emphasized a broad "substance over form approach." Reflected in the Preamble to the MiCA, this principle should serve as a safeguard against blatant mislabeling of NFTs.

To the extent that this principle focuses on the importance of the economic reality of assets and transactions, it represents a junction where the EU and US regulatory predicates meet. One of the US Supreme Court's edicts in securities law, for example, was to make sure that the definition of securities be based on "a flexible rather than a static principle, one that is capable of adaptation to meet the countless and variable schemes devised by those who seek the use of the money of others on the promise of profits."[60] It is possible that both the US and the EU could

[57] *See, e.g.,* Kappos et al., *supra* note 51, at 21 ("Dichotomies such as fungible and non-fungible are admittedly convenient shorthand to describe the technical classification of a digital asset. However, these simplifications are ultimately insufficient to give full color to the nature of a token").
[58] MiCA, *supra* note 9, art. 142.
[59] *Id*. at 43 ("The exclusion of crypto-assets that are unique and non-fungible from the scope of this Regulation is without prejudice to the qualification of such crypto-assets as financial instruments").
[60] SEC v. W.J. Howey Co., 328 U.S. 293, 299 (1946).

apply similarly panoramic analyses to the economic realities of NFTs and transactions with NFTs to address potential regulatory loopholes. The following Part demonstrates this approach.

IV. THE ECONOMIC REALITY ANALYSIS AND NFTS

At the heart of the economic reality test applied by US courts lies the *Howey* test. The test provides the foundational definition of securities that are unusual and do not fit within conventional categories—"investment contracts." An investment contract is "a contract, transaction or scheme whereby a person invests [their] money in a common enterprise and is led to expect profits solely from the efforts of the promoter or a third party."[61] This broad interpretation adequately captures the substance of future market developments and classes of securities after almost a century following the passage of the original securities statutes.[62] It also does not hinge on criteria such as "fungibility" of assets and instead provides a functional approach.[63]

In 2023, this functional approach to securities found its way into NFT markets through the SEC orders discussed in Part III and a decision of the Southern District of New York. In February 2023, Judge Marrero denied Dapper Labs's motion to dismiss a securities law complaint concerning NFTs called "NBA Top Shot Moments" and provided a detailed analysis of *Howey.*[64] As of the time of writing, the court adopted a case management plan, and plaintiffs were preparing to file a motion for class certification.[65] The ruling on motion to dismiss presents a

[61] *Id.* at 298–99.
[62] Tcherepnin v. Knight, 389 U.S. 332, 336 (1967) ("[I]n searching for the meaning and scope of the word 'security' in the Act, form should be disregarded for substance and the emphasis should be on economic reality" (citing to *Howey*, 328 U.S. at 298)).
[63] For a description of a functional approach in securities law, see, *e.g.,* Howell E. Jackson, *Regulation in a Multisectored Financial Services Industry,* 77 WASH. U. L.Q. 319, 367 (1999).
[64] Friel v. Dapper Labs, Inc., No. 21-CV-5837, 2023 WL 2162747 (S.D.N.Y. Feb. 22, 2023).
[65] Civ. Case Mgmt. Plan & Scheduling Ord., Friel v. Dapper Labs, Inc., No. 21-CV-5837, 2023 WL 2162747 (S.D.N.Y. Feb. 22, 2023).

unique opportunity to review the application of the economic reality analysis to NFTs. It provides a holistic review of transactional economics in light of "the totality of circumstances."[66]

The pertinent facts of the case are as follows: Dapper Labs is one of the major NFT firms. Domiciled in Canada, it had acquired an international reputation as the creator of CryptoKitties and NBA Top Shot Moments.[67] The defendant rose to fame with launching CryptoKitties—a game to collect and breed digital cats—on Ethereum.

Ethereum, however, struggled with scalability problems at the time. To improve scaling, Defendants built their own blockchain called "Flow." The NBA Top Shot Moments at issue in this case were built on Flow. (This move from Ethereum to Flow would become the crux of this case.) Ethereum is a public blockchain that is not controlled by any single authority, while Flow according to the Southern District of New York was a private blockchain.

Often, in a private blockchain, either a single authority or group administers it, may limit access to the blockchain, and even edits transactions. While still being distributed, a private blockchain is not fully decentralized, and fewer nodes may participate in the consensus mechanism. Nevertheless, a private blockchain may offer better scalability and faster transaction processing. Alas, it may be more vulnerable to cybercrime and hacks than well-decentralized public blockchains.

The court referred to Flow as a "private blockchain" although Flow became more decentralized as of 2021.[68] Note that, at least allegedly, Flow's design targeted the blockchain trilemma (a conflict between scalability, security, and decentralization) making it more secure

[66] Glen-Arden Commodities, Inc. v. Costantino, 493 F.2d 1027, 1034 (2d Cir. 1974).
[67] DAPPER LABS: THE NFT COMPANY, https://www.dapperlabs.com/ (last accessed June 5, 2023).
[68] Friel v. Dapper Labs, Inc., No. 21-CV-5837, 2023 WL 2162747, *4 (S.D.N.Y. Feb. 22, 2023). *See also Frequently Asked Questions*, FLOW, https://flow.com/faq (last accessed June 5, 2023) ("Is Flow decentralized? Yes, as of October 2021, less than 1/3 of consensus nodes, the nodes responsible for the security of the network, are run by any single entity").

than some other private blockchains.[69] Crucial to this case, however, is that Flow was built and controlled by Dapper Labs when the assets at issue were offered and traded.

Flow was built on a "proof of stake" protocol, meaning that validators would stake the native tokens on this blockchain to be selected to validate incoming transactions. The native token of Flow was also called "Flow" and functioned somewhat similarly to Ethereum's Eth—Flow tokens could be used as payment for validation services, a currency, collateral, and in blockchain governance.[70]

Flow tokens were distributed to investors outside the US, with a certain number reserved by Dapper Labs for project development and other purposes. As of this writing, Flow tokens traded on cryptoassets exchanges, such as Binance, at approximately $0.43.[71] The distribution of Flow tokens was not at issue in this class action; the NFTs called "NBA Top Shot Moments" were.

The NBA Top Shot Moments were released in partnership with the National Basketball Association (NBA) and NBA Payers Association (NBAPA) through an application built on the Flow blockchain. The Moments may be described as clips of highlights from basketball games. The three partners controlled which packs of highlights would be sold and how the highlights would be categorized. Just as the UCC Article 12 distinguished between the ownership of a controllable electronic record (the NFT in this case) and the underlying rights linked to the token, so did Dapper Labs, NBA, and NBAPA. Owners of the NFTs did not acquire "any rights to the basketball highlight"[72] or any intellectual property rights.[73]

[69] *Road to Permissionless Deployment*, FLOW DOCS, https://permissionless.onflow.org/ (last accessed June 5, 2023).
[70] Friel v. Dapper Labs, Inc., No. 21-CV-5837, 2023 WL 2162747, at *4 (S.D.N.Y. Feb. 22, 2023).
[71] *Flow Price*, BINANCE, https://www.binance.com/en/price/flow (last accessed September 13, 2023).
[72] Friel v. Dapper Labs, Inc., No. 21-CV-5837, 2023 WL 2162747, at *5 (S.D.N.Y. Feb. 22, 2023).
[73] *Id.*

Dapper Labs facilitated the primary sales and secondary market transactions through its application built on its own blockchain. The Flow blockchain provided record keeping, transfer recording, ownership verification, and other "back-office" functions. Dapper Labs also did not recognize trading in the NFTs outside its own platform.

In short, Dapper Labs created a full-cycle business model: First, it sold its primary products (*i.e.,* the NFTs) generated through the partnership with the NBA and booked revenue from the sales. Second, it ensured that transfers and sales were recorded on the Flow blockchain. Third, Dapper Labs generated profit from charging transaction fees on trading on its own market platform. Finally, it offered a digital wallet that served as the point of ingress and egress for the application and in this sense controlled the inflow of currency into NFTs and the outflow back to purchasers' bank accounts. The project proved exceptionally successful, with more than 800,000 users purchasing the NFTs.

In 2021, plaintiff filed a class action complaint against Dapper Labs and its CEO alleging that Dapper Labs NFTs were securities. Since the defendant did not file a registration statement with respect to the alleged securities, the defendant violated the Securities Act that requires such registration unless an exemption is available.[74] The Securities Act has an accompanying strict liability provision that allows purchasers of such unregistered securities to recover consideration or rescissory damages.[75] The punishment for not complying with US securities statutes is harsh.

But are NFTs securities? As discussed in the previous Parts, many NFTs are not. The test applied by US courts, however, does not follow a bright line analysis, which could be either overinclusive or underinclusive. Instead, as the Court in *Howey* remarked, traditionally, "[f]orm [, *i.e.*, the non-fungible nature of the assets in this case,] was disregarded for substance and

[74] 15 U.S.C.A. § 77e.
[75] 15 U.S.C.A. § 77l(a).

emphasis was placed upon economic reality."[76] With this precept in mind, the *Dapper Labs* court began by acknowledging that "it is a close call and the Court's decision is narrow. If there is a defining line separating those offerings that are securities from those that are not, whether Moments qualify toes that line intimately."[77]

The court's analysis transcends the NFTs and emphasizes the totality of the facts and circumstances. One of the key circumstances was that the Flow blockchain was built by the defendant. It was part and parcel of the economic realities of how the NFTs were traded. Flow tokens were used by validators to record prices and ownership of the NFTs, Flow tokens incentivized parties such as Dapper Labs and other validators to validate transactions on the Flow blockchain, and the blockchain itself was private according to the court.

The court essentially linked the value of and demand for two separate assets—the NFTs and the fungible Flow tokens of the underlying blockchain. Taken alone, this observation would not be probative, let alone determinative. The value of native tokens is generally dependent on the demand and value of the applications and cryptoassets built atop any blockchain.[78] The more developed an ecosystem is, the higher the value of the native assets ensuring that system's functionality. Blockchains compete for apps and developers, and the network effect features prominently in digital asset ecosystems.

The court, however, distinguished Dapper Labs's Flow blockchain from other blockchains by classifying it as private. It was a "privatized" ledger "making the purchasers reliant upon the promoter for the asset's value."[79] The marketplace for trading the NFTs at issue was also

[76] SEC v. W.J. Howey Co., 328 U.S. 293, 298 (1946).
[77] Friel v. Dapper Labs, Inc., No. 21-CV-5837, 2023 WL 2162747, at *8 (S.D.N.Y. Feb. 22, 2023).
[78] *See, e.g.,* Yuliya Guseva, *When the Means Undermine the End: The Leviathan of Securities Law and Enforcement in Digital-Asset Markets*, 5 STAN. J. OF BLOCKCHAIN L. & POL. 1, 39 (2022) ("[T]he value of cryptoassets may depend on the network effect, adoption by users, developer activity, network and product functionality, decentralization, listing and liquidity, scalability, and other factors").
[79] Friel v. Dapper Labs, Inc., No. 21-CV-5837, 2023 WL 2162747, at *9 (S.D.N.Y. Feb. 22, 2023).

controlled by Dapper Labs. A functioning marketplace for primary transactions and resales is indispensable to all markets in goods and services. This is particularly true if a platform reserves the right to deny access to users.[80] But even if there is no such right, investors depend on the liquidity and reliability of a marketplace, particularly when a party is the sole source and administrator of a trading platform.[81]

In the present case, the marketplace could not exist without the underlying technology (the Flow blockchain). Taken by themselves, the NFTs as lines of code had "no intrinsic or inherent value outside the Flow Blockchain."[82] Their value depended on the ecosystem and the underlying rights. Once this economic reality was ascertained, the *Howey* test cinched the conclusion that the scheme through which defendant offered the NBA Top Shot Moments produced a *relationship* "establish[ing] an investment contract, and thus a security."[83]

The first prong of *Howey* is "investment of money." The parties did not dispute that there was consideration (*i.e.*, an "investment of money"). The court then examined whether there was a common enterprise, which is the second requirement of the *Howey* analysis.[84] This is not only the linchpin of the economic reality analysis of NFTs (which are digitally unique and may be minted in multiple markets) but also a doctrinal challenge.[85]

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[80] Practitioners have underscored these issues in NFT markets. *See, e.g., Busch*, *supra* note 4, at 14.
[81] *See, e.g.*, Gary Plastic Packaging Corp. v. Merrill Lynch, Pierce, Fenner & Smith, Inc., 756 F.2d 230, 240 (2d Cir. 1985).
[82] Friel v. Dapper Labs, Inc., No. 21-CV-5837, 2023 WL 2162747, at *13 (S.D.N.Y. Feb. 22, 2023).
[83] *Id.* at 22.
[84] The court focused mainly on horizontal commonality and strict vertical commonality. *Id.* at 10–15.
[85] *See, e.g.,* Goforth, *How Nifty*, *supra* note 5, at 787–78; Elzweig & Trautman, *supra* note 50, at 327–28 ("If an NFT that is purchased is a collectible, there are no further ties between the buyer and the seller in that transaction. These type[s] of NFTs are essentially one-of-a-kind products being sold on the market, albeit through blockchain. This is no different than the sale of a traditional painting. Horizontal commonality is not met because the value is not tied to other investors and there is no pro-rata share of investments. There is no pooling of investors whose fortunes depend on the profitability of the enterprise. Also, there is no vertical commonality because there are no promoter's efforts that would impact the investment past the point of purchase").

Crucial to this part of the court's analysis is a finding that the funds from the NFT sales were "pooled," meaning that they were received by Dapper Labs and reinvested into its business to increase the value of the investments.[86] The success of these pooled investments was related to the firm's revenue, including transaction fees and revenue from NFT sales, as well as success of the Flow blockchain.[87]

The digital uniqueness of the NFTs did not undercut the conclusion that the funds were pooled. This conclusion suggests that the technological differences between fungible and non-fungible tokens should not be dispositive. It also emphasizes the nature of the economic reality analysis: the unique Moments were functionally distinguishable from many NFTs of digital art or collectibles because the whole scheme, value, and viability of the tokens at issue were tied to the promoter. Had Dapper Labs declared bankruptcy, the NFTs represented by lines of code on its blockchain would lose value entirely.

The court proceeded with the *Howey* analysis and found that investors contributed funds into a common enterprise expecting profits from the efforts of others, "the undeniably significant [efforts], those essential managerial efforts which affect the failure or success of the enterprise."[88] The question whether NFT purchasers expected profits from Dapper Labs's efforts entailed an analysis of objective expectations of reasonable investors.[89] One relevant issue here was whether the promoters had promised financial return to investors. The court answered in the affirmative, concluding that Dapper Labs "objectively led purchasers to expect that they would realize the

[86] Friel v. Dapper Labs, Inc., No. 21-CV-5837, 2023 WL 2162747, at *10–12 (S.D.N.Y. Feb. 22, 2023).
[87] *Id.* at 12–14.
[88] *Id.* at 16 (citing Balestra v. ATBCOIN LLC, 380 F. Supp. 3d 340, 355 (S.D.N.Y. 2019)).
[89] *See, e.g.,* Elzweig & Trautman, *supra* note 50, at 330 (discussing the expectation of profit prong).

same gains."[90] Incidentally, any consumptive intent investors might have had was commingled with the expectation of profit.[91] And that expectation was linked to the efforts of Dapper Labs.

It was Dapper Labs which controlled and operated the Flow blockchain that was vital to the operation of the trading application, provided a functioning marketplace, and thus bolstered the value of the NFTs.[92] According to the court, defendant made an "implicit promise" to continue their operations,[93] and purchasers relied on their "managerial efforts" and managerial control to ensure investments are viable and profitable.[94] Under the circumstances, it was clear that securities laws should apply to the transactions and scheme at issue.

V. CONCLUSION

The economic reality approach applied in *Dapper Labs* demonstrates why and how the legal regime that works in securities markets built on asset fungibility could be relevant in relation to transactions in non-fungible assets. Although the rich factual analysis in *Dapper Labs* suggests that the court's conclusions may be specific to the facts of the case, the decision provides an illustrative example of how to look past the concepts of fungibility and non-fungibility. *Dapper Labs* transcends the functionalities and utility of NFTs (namely, providing access to the underlying NBA Top Shots). Instead, the decision focuses on the legal relationship, including

[90] Friel v. Dapper Labs, Inc., No. 21-CV-5837, 2023 WL 2162747, at *17 (S.D.N.Y. Feb. 22, 2023).
[91] *Id*. at 18 (the court observed that "*Forman* left open the possibility that '[i]n some transactions the investor is offered both a commodity . . . for use and an expectation of profits' and noted 'the application of the federal securities laws to these transactions may raise difficult questions that are not present in this case'" (citing United Hous. Found., Inc. v. Forman, 421 U.S. 837, 853 n.17 (1975)); the court also declined to consider relevant factual questions at the motion to dismiss stage).
[92] "Dapper Labs's continued management and efforts to develop the ecosystem, both technologically and as a matter of promotion, are crucial to Moments retaining and increasing in value." *Id.* at 19.
[93] *Id.* at 20.
[94] *Id.* at 20–22 ("By privatizing the blockchain on which Moments' value depends and restricting the trade of Moments to only the Flow Blockchain, purchasers must rely on Dapper Labs's expertise and managerial efforts, as well as its continued success and existence. As Plaintiffs allege, this is unlike public blockchains").

the overarching transactional scheme run by the issuer, as well as the expectations of purchasers and sellers of the NFTs.

Each NFT of an NBA game could be functionally similar to a digital baseball card and provide access to a digital file containing an NBA shot. Furthermore, the business objectives of promoters could be far from offering securities. Yet, the way Dapper Labs implemented its business strategy by offering and selling the NFTs and the totality of transactional circumstances tipped the balance in favor of applying securities law.

To summarize, tests like *Howey* focus on economic realities of markets and transactions and help decisionmakers ascertain to which market an NFT belongs and which corresponding legal regime should govern. These holistic frameworks may equip courts and regulators with a thorough understanding of the economics of technology-based assets and transactions and provide a solid footing for better regulation.