

Digital Assets and SEC Regulation

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Digital Assets and SEC Regulation

In recent years, financial innovation in capital markets has fostered a new asset class—digital assets—and introduced new forms of fundraising and trading. *Digital assets*, which include *cryptocurrencies*, *crypto-assets*, or *digital tokens*, among others, are digital representations of value. Regardless of the terms used to describe these assets, depending on their characteristics, some digital assets are subject to securities laws and regulations.

Securities regulation generally applies to all securities, whether they are digital or traditional. The Securities and Exchange Commission (SEC) is the primary regulator overseeing securities offerings, sales, and investment activities. The SEC's mission is to protect investors; maintain fair, orderly, and efficient markets; and facilitate capital formation. The existing securities regulatory regime, including the SEC's digital asset regulation, generally aligns with the mission. The SEC has used existing authorities to evaluate new product approval, provide individual regulatory relief, and solicit public input for policy solutions more tailored to digital assets. It has also asked Congress for more authorities pertaining to digital assets.

Digital assets have a growing presence in the financial services industry. Their increasing use in capital markets raises policy questions regarding whether changes to existing laws and regulations are warranted and, if so, when such changes should happen, what form they should take, and which agencies should take the lead. The current innovative environment is not the regulatory regime's first encounter with changing technology since its inception in the 1930s. Some technological advancements led to regulatory changes, whereas others were dealt with through the existing regime.

The general consensus is that regulatory oversight should be balanced with the need to foster financial innovation, but the basic objectives of regulation should apply to ensure market integrity and investor protection. Some believe that certain digital asset activities that may appear similar to traditional activities nonetheless require adjusted regulatory approaches to account for particular operating models that may amplify risks differently. In general, policymakers contending with major financial innovations have historically focused on addressing risk concerns while tailoring a regulatory framework that was flexible enough to accommodate evolving technology. Current developments that raise policy issues include the following:

Digital asset “exchanges.” Some industry observers perceive digital asset trading platforms as functional equivalents to the SEC-regulated securities exchanges in buying and selling digital assets. But these platforms are not subject to the same level of regulation, suggesting that they may be less transparent and more susceptible to manipulation and fraud.

Digital asset custody. Custodians provide safekeeping of financial assets and are important building blocks for the financial services industry. Digital assets present custody-related compliance challenges because custodians face difficulties in recording ownership, recovering lost assets, and providing audits, among other considerations. The SEC is aware of the challenges and is engaging stakeholders to discuss potential issues and solutions.

Digital asset exchange-traded funds (ETFs). ETFs are pooled investment vehicles that gather and invest money from a variety of investors. ETF shares can trade on securities exchanges like a stock. Currently, digital assets themselves are generally not sold on SEC-regulated national exchanges. However, if portfolios of digital assets were made available as ETFs, they may be sold on national exchanges. The SEC has not yet approved any digital asset ETFs because of market manipulation and fraud concerns.

Stablecoins in securities markets. Stablecoin is a digital asset designed to maintain a stable value by linking its value to another asset or a basket of reserve assets. In policy discussions, some suggest applying ETF regulatory frameworks to certain stablecoins; others argue for more disclosure of reserve asset breakdowns to expose potential deceptive activities.

Initial coin offerings (ICOs). ICOs as a digital asset fundraising method can be offered in many forms using existing public and private securities offerings channels. Although ICOs may be useful fundraising tools, some of them raise regulatory oversight and investor-protection concerns.

Non-fungible Tokens (NFTs). NFTs are digital assets linking to certificates of authenticity using blockchain technology. NFTs are “non-fungible,” meaning each token and the authenticated object it represents are unique. Under certain narrow circumstances, NFTs could be subject to securities regulation.

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What Are Digital Assets?

Digital assets are assets issued and transferred using distributed ledger or blockchain technology.¹ They are often referred to as *crypto asset*, *cryptocurrency*, or *digital token*, among other terminology.² Digital assets can be securities, currencies, properties, or commodities. Although market participants use different terms to describe them, financial regulators have stated that—regardless of what they are called—financial activities, services, and market participants must adhere to applicable laws and regulations. In the case of digital assets, depending on their characteristics, this can include securities laws and regulations.³ One key difference between digital and traditional assets is an asset’s ownership and exchanges of ownership. Whereas traditional assets are generally recorded in private ledgers maintained by central intermediaries, digital assets’ ownership and exchange are generally recorded on a decentralized digital ledger.

Digital Asset Securities

The Securities and Exchange Commission (SEC) is the primary regulator overseeing securities offers, sales, and investment activities, including those involving digital assets. However, many digital assets are not securities. In general, a security is “the investment of money in a common enterprise with a reasonable expectation of profits to be derived from the efforts of others.”⁴ When a digital asset meets the criteria defining a security, it would be subject to securities regulation, per existing SEC jurisdiction. For example, most of the initial coin offerings (ICOs) are securities, but Bitcoin is not a security, mainly because it does not have a central third-party common enterprise.⁵

Market intermediaries (e.g., investment advisers, trading platforms, and custodians) involved with digital asset investment, trading, and safekeeping could also be subject to relevant securities regulation. Securities regulations could apply if the intermediaries are directly engaged in the security-based digital asset transactions or if they use digital assets (including non-security-based digital assets) to facilitate securities transactions.⁶

¹ U.S. Securities and Exchange Commission (SEC), *Framework for “Investment Contract” Analysis of Digital Assets*, April 3, 2019, at <https://www.sec.gov/files/dlt-framework.pdf>. For more information on blockchain technology, see CRS Report R45116, *Blockchain: Background and Policy Issues*, by Chris Jaikaran.

² Board of the International Organization of Securities Commissions, *Issues, Risks and Regulatory Considerations Relating to Crypto-Asset Trading Platforms*, May 2019, at <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD627.pdf>.

³ SEC, “Leaders of CFTC, FinCEN, and SEC Issue Joint Statement on Activities Involving Digital Assets,” public statement, October 11, 2019, at https://www.sec.gov/news/public-statement/cftc-fincen-secjointstatementdigitalassets#_ftn4.

⁴ For more details, see SEC, *Framework for “Investment Contract” Analysis of Digital Assets*, April 3, 2019, at <https://www.sec.gov/files/dlt-framework.pdf>.

⁵ SEC Division of Corporate Finance Director William Hinman, “Digital Asset Transactions: When Howey Met Gary (Plastic),” speech delivered at Yahoo Finance All Markets Summit: Crypto, San Francisco, CA, June 14, 2018, at <https://www.sec.gov/news/speech/speech-hinman-061418>.

⁶ For example, a digital asset securities trading platform could be subject to securities regulation. Bitcoin is not a security, but the Bitcoin exchange-traded fund share is a security, and would be subject to securities regulation. In addition, as former SEC Chair Jay Clayton stated, “regulated financial entities that allow for payment in cryptocurrencies, allow customers to purchase cryptocurrencies on margin or otherwise use cryptocurrencies to facilitate securities transactions should exercise caution, including ensuring that their cryptocurrency activities are not undermining their anti-money laundering and know-your-customer obligations.” SEC Chairman Jay Clayton, *Chairman’s Testimony on Virtual Currencies: The Roles of the SEC and CFTC*, February 6, 2018, at

This report focuses on digital assets and activities that are or may be subject to securities regulation. It discusses the objectives and policy rationale of securities laws and regulations; SEC initiatives to address specific regulatory challenges arising from certain unique digital asset features that raise questions concerning the adequacy of the existing regulatory framework; and policy issues for congressional and industry consideration in selected areas, including initial coin offerings, stablecoins, digital asset exchange-traded funds, digital asset custody, and digital asset trading.

Digital Assets as a New Asset Class

Digital assets have emerged as a growing asset class for investors, with a total market value of more than \$2 trillion for cryptocurrencies in May 2021, compared with around \$260 billion a year before and around \$20 billion in early 2017.⁷ The size of the cryptocurrencies market is significant but still relatively small given the size of traditional asset markets. For example, the U.S. fixed income market is worth about \$50 trillion, and the Standard & Poor's 500 index—an index including 500 large U.S. publicly traded companies—is worth about \$35 trillion as of May 2021.⁸ Some investors view crypto assets as “digital gold” due to some of their characteristics. The size of the cryptocurrencies market is comparable to the value of gold held by private investors, which is estimated to be around \$3 trillion.⁹

Digital assets have reportedly experienced a rapid ramp-up in institutional adoption. For example, institutional investors are increasingly directly investing in digital assets or providing inflow for digital asset managers such as Grayscale, a company that provides trusts that allow investors to gain exposure to digital assets without directly owning them.¹⁰ Grayscale is the world's largest digital asset manager, with about \$40 billion in assets under management as of March 2021.¹¹ Relative to owning the digital assets directly, digital asset managers provide services in trading, storing, and safekeeping digital assets, among other things.¹²

Institutional investors enter into digital asset markets to seek investment returns and to allocate assets to achieve perceived diversification benefits. Some of their major concerns as they begin this investing include uncertainty of the future of the technology, security and safekeeping of assets, and regulatory uncertainty.¹³ As more institutional investors (including asset managers, pension funds, endowments, and insurance companies) have entered into crypto asset markets, large financial institutions that offer related services (such as digital asset custody and safekeeping) have begun to expand their infrastructure to accommodate this investing. For

<https://www.sec.gov/news/testimony/testimony-virtual-currencies-oversight-role-us-securities-and-exchange-commission>.

⁷ CoinMarketCap, “Global Cryptocurrency Charts,” at <https://coinmarketcap.com/charts>.

⁸ SIFMA, “Fixed Income Outstanding,” at <https://www.sifma.org/resources/research/fixed-income-chart>.

⁹ Bernstein, *An Early Spring for Cryptoassets*, April 14, 2021, at <https://www.alliancebernstein.com/library/An-Early-Spring-For-Cryptoassets.htm>.

¹⁰ Kate Rooney, “Crypto Investment Firm Grayscale Sees 900% Jump in Assets to \$20 billion Amid Bitcoin Frenzy,” *CNBC*, January 14, 2021, at <https://www.cnbc.com/2021/01/13/grayscale-sees-900percent-jump-in-inflows-as-wall-street-flocks-to-bitcoin.html>.

¹¹ Grayscale, “About Grayscale,” at <https://grayscale.com/about>.

¹² Grayscale, *Grayscale Investor Deck*, December 2020, at <https://grayscale.co/wp-content/uploads/2020/12/Grayscale-Investor-Deck-December-2020-Products-Closed.pdf>.

¹³ Bernstein, *Cryptoassets: Discretion of the Better Part of Valor*, at <https://www.bernstein.com/bernstein/email/cryptoassetsvalor.pdf>.

example, the large financial institutions Fidelity, State Street, and Bank of New York Mellon have all set up digital divisions to handle the increased client demand that reportedly tripled within two to three months in some cases.¹⁴ The level of engagement with reputable institutional investors, and the industry's creation of new digital products and service infrastructure, may indicate that the acceptance of the digital asset market has achieved or is nearing achieving a critical mass at which digital asset investing becomes generally acceptable by a wide range of investors.

Securities Regulation Background

Securities regulation generally applies to all securities and related intermediaries, whether they are digital or traditional. This section broadly discusses the objectives and policy rationale behind securities laws and regulations.

Congress established the SEC and the main framework for capital markets and securities regulation to restore market confidence after the stock market crash of 1929.¹⁵ The regulatory framework's key objectives are to promote disclosure of important market-related information, maintain fair dealing, and protect against fraud.¹⁶ As a result, the existing securities regulatory regime focuses on disclosure-based rules, an antifraud regime, and rules governing securities market participants (e.g., exchanges, broker-dealers, and investment advisors).¹⁷ The SEC's mission is to protect investors; maintain fair, orderly, and efficient markets; and facilitate capital formation.¹⁸

For example, one of the cornerstones of securities regulation—the Securities Act of 1933—is often referred to as the “truth in securities” law.¹⁹ As the phrase suggests, disclosures allow investors to make informed judgments about whether to purchase specific securities by ensuring they receive financial and other significant information on securities offered for sale. The SEC does not make investment recommendations.²⁰ The disclosure-based regulatory philosophy is consistent with Supreme Court Justice Louis Brandeis's famous dictum that “sunlight is said to be the best of disinfectants; electric light the most efficient policeman.”²¹

The current developments in digital asset trading and fundraising are not the first time securities regulators have had to accommodate new technology. Capital markets infrastructure has experienced continuous innovation since the securities regulatory framework was first formed in the 1930s. For example, securities trading platforms experienced a major revolution in the late 1960s and early 1970s, when trading processes shifted from paper and pen-based manual settlements in isolated markets to electronic platforms, which incorporate new data-processing and communications technologies that link all markets together.²² Congress responded to these

¹⁴ Gary Silverman, “State Street to Set up Digital Unit to Capitalize on Crypto Craze,” *Financial Times*, June 10, 2021, at <https://www.ft.com/content/52b1b8a9-2322-496c-ac16-a847c658d186>.

¹⁵ The framework was established in the Securities Act of 1933 (P.L. 73-22) and the Securities Exchange Act of 1934 (P.L. 73-291). The terms *capital markets* and *securities markets* are used interchangeably in this CRS report.

¹⁶ SEC, “What We Do,” at <https://www.sec.gov/Article/whatwedo.html>.

¹⁷ SEC Chairman Jay Clayton, “Remarks at the Economic Club of New York,” New York, NY, July 12, 2017, at <https://www.sec.gov/news/speech/remarks-economic-club-new-york>.

¹⁸ SEC, “About the SEC,” at <https://www.sec.gov/about.shtml>.

¹⁹ 15 U.S.C. § 77a et seq.

²⁰ SEC, *Registration Under the Securities Act of 1933*, at <https://www.sec.gov/fast-answers/answersregis33htm.html>.

²¹ Louis Brandeis, “What Publicity Can Do,” *Harper's Weekly*, December 20, 1913. For more on securities disclosure, see CRS In Focus IF11256, *SEC Securities Disclosure: Background and Policy Issues*, by Eva Su.

²² Excerpt from Wyatt Wells, “Certificates and Computers: The Remaking of Wall Street, 1967 to 1971,” *Business*

advancements by amending Section 11A of the Securities Exchange Act to establish a national market system.²³ The congressional objectives were to encourage efficient, competitive, fair, and orderly markets that are in the public interest and protect investors.²⁴

The SEC's Current Regulatory Approach

Although digital assets as a capital market innovation evolved quickly, the SEC to date has not been active in promulgating new digital-asset-specific rules. One rationale for this approach is that, because it is uncertain how the characteristics and use of digital assets will evolve, highly prescriptive regulations could become obsolete, and potentially inefficient.²⁵

The SEC's current regulatory framework that governs traditional and digital securities include the Securities Act of 1933,²⁶ the Securities Exchange Act of 1934,²⁷ the Investment Company Act of 1940,²⁸ and the Investment Advisers Act of 1940.²⁹ It has also used existing tools and a number of initiatives besides rulemaking to address specific regulatory issues arising from certain unique digital asset features. The SEC's approaches include the following:

- **Innovation office.** The SEC created the Strategic Hub for Innovation and Financial Technology (FinHub) in 2018 to engage in financial technology (*fintech*), consolidate and clarify communications, and inform policy research. In 2019, FinHub conducted outreach meetings in multiple cities and published a framework for analyzing whether a digital asset is a security.³⁰ FinHub became a standalone office in December 2020.³¹
- **Enforcement.** The SEC has brought enforcement actions against securities token issuers and digital asset traders and asset managers, among others. The SEC

History Review, vol. 74, no. 2 (Summer 2000), p. 193, at <https://hbswk.hbs.edu/archive/the-remaking-of-wall-street-1967-to-1971>; Testimony of former SEC Chairman Arthur Levitt, in U.S. Congress, Senate Committee on Banking, Housing, and Urban Affairs, *Preserving and Strengthening the National Market System for Securities in the United States*, hearings, 106th Cong., 2nd sess., May 8, 2000, at <https://www.sec.gov/news/testimony/ts082000.htm>; and Bob Pisani, "Man Vs. Machine: How Stock Trading Got So Complex," CNBC, September 13, 2010, at <https://www.cnbc.com/id/38978686>.

²³ 15 U.S.C. §78k-1 and P.L. 94-29.

²⁴ The Securities Acts Amendments of 1975 (P.L. 94-29) states that "It is in the public interest and appropriate for the protection of investors and the maintenance of fair and orderly markets to assure: economically efficient execution of transactions; fair competition among broker-dealers, among exchanges, and between exchanges and other markets; ready availability of quotation and transaction information to broker-dealers and investors; the ability of broker-dealers to execute orders in the best market; and an opportunity, consistent with the other goals, for investors to execute orders without the participation of a dealer."

²⁵ For example, statements by Jay Baris, Partner at Shearman & Sterling LLP. See page 46 of SEC FinHub Forum transcript at Bloomberg, *Securities and Exchange Commission Fintech Forum: Distributed Ledger Technology and Digital Assets*, June 3, 2019, at <https://www.bgov.com/core/news#!/articles/PSICX08JMDC0>.

²⁶ P.L. 73-22.

²⁷ P.L. 73-291.

²⁸ P.L. 76-768.

²⁹ P.L. 76-768. For more details on the SEC's existing regulatory framework see SEC, *The Laws That Govern the Securities Industry*, at <https://www.sec.gov/answers/about-lawsshtml.html>.

³⁰ SEC, *Framework for "Investment Contract" Analysis of Digital Assets*, at <https://www.sec.gov/corpfin/framework-investment-contract-analysis-digital-assets>.

³¹ SEC, "SEC Announces Office Focused on Innovation and Financial Technology," press release, December 3, 2020, at <https://www.sec.gov/news/press-release/2020-303>.

established a new Cyber Unit and increased its monitoring of and enforcement actions against illicit cyber-based transactions.

- **No-action letters.** The SEC uses no-action letters to provide relief for digital-asset-related businesses and to signal its regulatory intentions to capital markets.³² For example, the SEC issued a no-action letter to TurnKey Jet, a business-travel startup, stating that its issued tokens are not securities.³³ This was the SEC's first no-action letter for an ICO. The letter triggered a wave of industry discussions and potentially set a precedent for future digital asset activities.
- **Solicitation for public input.** The SEC released a letter to the industry in March 2019 to solicit public input regarding digital asset custody.³⁴ The comments helped the SEC understand the challenges the industry faces and assess investor-protection risks.
- **New product approval.** The SEC could approve or reject new digital asset products. For example, the SEC has reviewed Bitcoin ETF proposals in recent years and has consistently rejected such proposals as of May 2021.³⁵

Policy Issues in the Securities Regulation Context

Digital assets and their use in capital markets are a growing presence in the financial services industry's development. They raise policy questions, including whether new digital-asset-related practices have outgrown or are sufficiently overseen by the existing regulatory system; how the regulatory frameworks can achieve a level playing field where the same businesses and risks could be subject to the same regulation;³⁶ and how to protect investors without hindering innovation.³⁷

A fundamental understanding of innovative trends and the appropriate timing of the related policy actions are also important for digital asset regulation. In analyzing technological changes, some commentators suggest that society tends to overestimate a technology's effects in the short run and underestimate its effects in the long run.³⁸ This illustrates the delicate balance between social pressure for change and the appropriate timing for policy responses in the face of innovation.

This section explains key examples of digital asset developments and use cases, focusing on policy issues and legislative proposals in the securities regulation context. The most salient digital asset-related policy issues include regulatory oversight and investor protection.

³² No-action letters are official communications stating a regulator does not expect to take enforcement actions against particular companies in certain situations.

³³ SEC, "Response of the Division of Corporate Finance," April 3, 2019, at <https://www.sec.gov/divisions/corpfin/cf-noaction/2019/turnkey-jet-040219-2a1.htm>.

³⁴ SEC, "Engaging on Non-DVP Custodial Practices and Digital Assets," March 12, 2019, at <https://www.sec.gov/investment/non-dvp-and-custody-digital-assets-031219-206>.

³⁵ For more on ETFs, see CRS Report R45318, *Exchange-Traded Funds (ETFs): Issues for Congress*, by Eva Su.

³⁶ Sabine Lautensläger, "Digital Na(t)ive? Fintechs and the Future of Banking," speech at European Central Bank Fintech Workshop, Frankfurt, Germany, March 27, 2017, at https://www.bankingsupervision.europa.eu/press/speeches/date/2017/html/se170327_1.en.html.

³⁷ Some believe that reduced regulation could foster financial innovation. For example, the Token Taxonomy Act of 2021 (H.R. 1628) proposed the exemption of digital tokens from securities regulation.

³⁸ For example, the theorem of Amara's law. Oxford Reference, *Oxford Essential Quotations*, 2016, at <https://www.oxfordreference.com/view/10.1093/acref/9780191826719.001.0001/q-oro-ed4-00018679>.

Regulatory Oversight. Digital asset issuers and investors may face a steep learning curve in comprehending the regulatory landscape and determining how or if securities laws apply to them.³⁹ It may not always be clear whether a digital asset is a security subject to SEC regulation. Multiple agencies apply different regulatory approaches to digital assets at the federal and state levels. The SEC treats some digital assets as “securities,” the Commodity Futures Trading Commission (CFTC) treats some digital assets as “commodities,” and the Internal Revenue Service treats some digital assets as “property.”⁴⁰ State regulators oversee digital assets through state money transfer laws, and the Department of the Treasury’s Financial Crimes Enforcement Network (FinCEN) monitors digital assets for anti-money laundering purposes.

Investor Protection. Digital asset investors—which may include less-sophisticated retail investors, who may not be positioned to comprehend or tolerate high risks—may be especially vulnerable to new types of fraud and manipulation, leading to questions about investor protection. First, there appears to be high levels of fraud, scams, and business failures.⁴¹ An early study from Satis Group, a digital asset advisory firm, found that 81% of ICOs were scams and another 11% failed for operational reasons.⁴² Second, many digital asset companies offering securities do not comply with SEC registration and disclosure obligations, potentially affecting investors’ ability to understand their risk exposures.⁴³ Third, the high volatility of digital assets’ valuations can potentially result in large gains and losses, the risk of which may not be well understood by less-sophisticated investors. Lastly, digital assets operate outside the traditional financial system and thus may not offer common types of transaction protections. For example, banks may have the option to halt or reverse suspicious transactions and associate transactions with the users’ identities, but a digital asset transaction is generally irreversible through such intermediaries. Another example is that a significant portion of digital assets are inaccessible because of lost or forgotten keys. Around 20% of all Bitcoins were reportedly in lost or deserted wallets.⁴⁴ This highlights the importance of financial intermediaries such as custodians or banks that could usually help reset or restore passwords to gain access to traditional assets. Such traditional services are much less common for digital assets, which are designed to enable transactions without going through a financial intermediary or any kind of identify check.

Initial Coin Offerings

Businesses raise funding from capital markets through securities offerings, such as stocks, bonds, and digital assets. ICOs are a new fundraising mechanism in which projects sell their digital tokens in exchange for fiat currency (e.g., dollars) or cryptocurrency (e.g., Bitcoin).⁴⁵ A typical

³⁹ See CRS In Focus IF11004, *Financial Innovation: Digital Assets and Initial Coin Offerings*, by Eva Su.

⁴⁰ For example, Bitcoin is not a security but a commodity, overseen by the CFTC’s general anti-fraud and manipulation oversight and enforcement authority. CFTC, *Customer Advisory: Understand the Risks of Virtual Currency Trading*, at https://www.cftc.gov/sites/default/files/idc/groups/public/@customerprotection/documents/file/customeradvisory_urvct121517.pdf.

⁴¹ Kellie Mejdich, “Cryptocurrency Scams Skyrocketing, FTC Says,” *Politico*, May 17, 2021, at <https://subscriber.politicopro.com/article/2021/05/cryptocurrency-scams-skyrocketing-ftc-says-2055917>.

⁴² Satis Group, *Crypto-asset Market Coverage Initiation: Network Creation*, July 11, 2018, at https://research.bloomberg.com/pub/res/d28giW28tf6G7T_Wr77aU0gDgFQ.

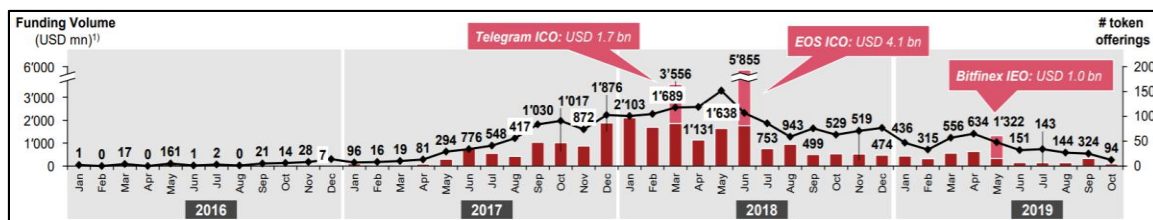
⁴³ Financial Industry Regulatory Authority, *Initial Coin Offerings (ICOs)—What to Know Now and Time-Tested Tips for Investors*, Investor Alert, August 16, 2018, at <http://www.finra.org/investors/alerts/initial-coin-offerings-what-to-know>.

⁴⁴ Nathaniel Popper, “Lost Passwords Lock Millionaires Out of Their Bitcoin Fortunes,” *New York Times*, January 14, 2021, at <https://www.nytimes.com/2021/01/12/technology/bitcoin-passwords-wallets-fortunes.html>.

⁴⁵ SEC, “Investor Bulletin: Initial Coin Offerings,” July 25, 2017, at <https://www.sec.gov/oiea/investor-alerts-and->

ICO transaction involves the issuer selling new digital “coins” or “crypto tokens” to individual or institutional investors. Investors pay for these tokens with either cryptocurrencies or traditional currencies. ICOs are often compared with initial public offerings (IPOs) of the traditional financial world because both are methods by which companies acquire funding. The main difference is that ICO investors receive digital assets in the form of virtual tokens or the promise of future tokens, unlike IPO investors who receive an equity stake representing company ownership. These coins or tokens are new digital currencies each company creates and sells to the public. Coin purchasers could redeem the coins for goods or services from crypto enterprises or hold them as investments hoping the coins would increase in value. Although every crypto enterprise is different, they generally make transfers without an intermediary or any geographic limitation.⁴⁶ **Figure 1** illustrates the growth and decline of ICO activities.

Figure 1. Initial Coin Offering Monthly Numbers and Dollar Funding Volumes



Source: PWC, 6th ICO/STO Report, Spring 2020 Edition.

Industry practitioners are increasingly using the term *security token offerings* (STOs) to describe ICOs.⁴⁷ This change of terminology reflects the industry’s acceptance that many ICOs are securities offerings and thus subject to securities laws and regulations.⁴⁸ Securities laws require all securities offers and sales to either be registered under their provisions (as a public offering) or qualify for an exemption from registration (as a private offering).⁴⁹ ICOs can take many forms. They can be listed on national exchanges as public offerings or be issued pursuant to the private securities offering exemptions. Operational and regulatory conditions—including investor access, maximum offering amounts, and filing requirements—differ depending on the type of offering an ICO selects.⁵⁰ **Table 1** illustrates examples of ICO fundraising options. ICOs could potentially use all the existing securities offering venues. They have already reportedly been issued under several of the private exemptions (e.g., Regulation D, Regulation Crowdfunding, and Regulation A).⁵¹ Although public offering ICOs are possible, as of May 2021, no ICOs have yet issued under

bulletins/ib_coinofferings.

⁴⁶ SEC Chairman Jay Clayton, “Statement on Cryptocurrencies and Initial Coin Offerings,” December 11, 2017, at <https://www.sec.gov/news/public-statement/statement-clayton-2017-12-11>.

⁴⁷ Roger Aitken, “After ‘Crypto’s Winter’, ICOs Growing Less But Maturing With Shift To STOs,” *Forbes*, March 8, 2019, at <https://www.forbes.com/sites/rogeraitken/2019/03/08/after-cryptos-winter-icos-growing-less-but-maturing-with-shift-to-stos/#3e666a687bcf>.

⁴⁸ Terminologies change or evolve relatively rapidly in the digital assets industry. Other illustrative examples include Initial Exchange Offerings (IEOs), which are ICOs launched exclusively on digital trading platforms. SEC Division of Corporate Finance Director William Hinman, “Digital Asset Transactions: When Howey Met Gary (Plastic),” speech delivered at Yahoo Finance All Markets Summit: Crypto, San Francisco, CA, June 14, 2018, at <https://www.sec.gov/news/speech/speech-hinman-061418>.

⁴⁹ SEC, *Federal Securities Laws*, at <https://www.sec.gov/page/federal-securities-laws?auHash=B8gdTzu6DrpJNvsGIS1-JY1LnXDZQqS-JgJAgaSXimg>.

⁵⁰ For more details on public and private securities offerings, see CRS Report R45221, *Capital Markets, Securities Offerings, and Related Policy Issues*, by Eva Su.

⁵¹ Paul Vigna, “SEC Clears Blockstack to Hold First Regulated Token Offering,” *Wall Street Journal*, July 10, 2019, at

this method. The previously discussed policy issues relating to regulatory oversight and investor protection also apply to ICOs.⁵²

Table I. Comparison of Selected ICO Securities Offerings Options

Type of Offering	Maximum Amount	Key Filing Requirements	Investor Access
Public Offering	No limit	Full SEC registration requirements, including, but not limited to, Regulation S-K (nonfinancial disclosure), S-X (financial disclosure), and S-T (electronic filing regulations).	Full Access
Initial Public Offering (IPO) On-Ramp	No limit, but subject to emerging growth company status eligibility	Scaled-down SEC registration, including test-the-waters provisions, two years rather than three years of audited financial statements, and certain reduced executive compensation disclosure provisions, among others.	Full Access
Regulation A-Tier 1	\$20 million within 12 months	Form 1-A (an offering circular that contains information about the offering and the related risks, use of proceeds, business description, and financial statements, among other things). Financial statements disclosed in a Tier 2 offering must be audited, whereas financial statements disclosed in a Tier 1 offering can be unaudited.	Full Access
Regulation A-Tier 2 (Mini-IPO)	\$50 million within 12 months		Nonaccredited investors subject to investment limits
Regulation Crowdfunding	\$1,070,000 within 12 months	Form C (include two years of financial statements that are certified, reviewed, or audited, as required). Scaled disclosure requirements for offerings of \$107,000 or less, \$107,000-\$535,000, and more than \$535,000.	Does not specify accredited investor status, but subject to a range of investor income, net worth, and investment amount limitations
Regulation D-Rule 504	\$5 million within 12 months	Form D (a brief notice that generally includes only the names and addresses of key personnel and some details about the offering).	Full Access
Regulation D-Rule 506	No limit	Form D	No more than 35 sophisticated but nonaccredited investors—506(b)

Source: Congressional Research Service (CRS), based on Securities and Exchange Commission's (SEC's) reporting.

Notes: The descriptions in the table apply to general conditions only; they are not inclusive of all conditions and exceptions. For more on defining *accredited investors*, see CRS In Focus IFI I 278, *Accredited Investor Definition and Private Securities Markets*, by Eva Su. For a more detailed listing of securities offerings, see Table I of CRS Report R45221, *Capital Markets, Securities Offerings, and Related Policy Issues*, by Eva Su.

<https://www.wsj.com/articles/sec-clears-blockstack-to-hold-first-regulated-token-offering-11562794848>; and Francine McKenna and Katie Marriner, "ICO offerings way down, but some still using SEC back door to raise funds," *MarketWatch*, October 26, 2019, at <https://www.marketwatch.com/story/ico-offerings-way-down-but-some-still-using-sec-back-door-to-raise-funds-2019-10-22?mod=francine-mckenna>.

⁵² For more on ICO legal background, see CRS Report R45301, *Securities Regulation and Initial Coin Offerings: A Legal Primer*, by Jay B. Sykes.

Digital Asset “Exchanges”

Many digital asset trading platforms are offering digital asset trading and referring to themselves as “exchanges.” A platform that offers trading in digital asset securities and operates as an “exchange” (as defined in the federal securities laws) must register with the SEC as a national securities exchange or obtain exemption.⁵³ However, many such platforms offer trading in digital assets that are not securities. Some platforms are registered as money-transmission services (MTSs) instead of SEC-regulated national securities exchanges.⁵⁴ MTSs are money transfer or payment operations that are mainly subject to state, rather than federal, regulations, although they do have to register with FinCEN and face certain reporting requirements to that office.⁵⁵ Because MTS regulations were not designed with digital asset trading activities in mind, some argue that they are insufficient in regulating the transfer of digital assets.⁵⁶ In addition, these services may raise investor-protection concerns because they are not subject to the more rigorous oversight as national securities exchanges.⁵⁷ The SEC issued a statement clarifying that the online platforms for buying and selling digital assets that qualify as securities could be unlawful.⁵⁸

These digital asset trading platforms face problems with fraud and manipulation. Although the CFTC has authorities to regulate against fraud and manipulation in digital commodities markets,⁵⁹ some think applying SEC regulation would help, but others are concerned that regulation could stifle financial innovation.⁶⁰

Digital Asset “Exchanges” Versus National Securities Exchanges

Although current technological advancements may seem to have blurred the terminology used, certain platforms trading digital assets appear to behave as functional equivalents to national

⁵³ The SEC states that “if a platform offers trading of digital assets that are securities and operates as an ‘exchange,’ as defined by the federal securities laws, then the platform must register with the SEC as a national securities exchange or be exempt from registration.” For more details, see SEC, “Statement on Potentially Unlawful Online Platforms for Trading Digital Assets,” March 7, 2018, at <https://www.sec.gov/news/public-statement/enforcement-tm-statement-potentially-unlawful-online-platforms-trading>.

⁵⁴ For more on money transmitters, see CRS Report R46486, *Telegraphs, Steamships, and Virtual Currency: An Analysis of Money Transmitter Regulation*, by Andrew P. Scott.

⁵⁵ Marco Santori, “What Is Money Transmission and Why Does It Matter?,” *Coin Center*, April 7, 2015, at <https://coincenter.org/entry/what-is-money-transmission-and-why-does-it-matter>.

⁵⁶ Peter Van Valkenburgh, “The Need for a Federal Alternative to State Money Transmission Licensing,” *Coin Center Report*, January 2018, at <https://coincenter.org/files/2018-01/federalalternativev1-1.pdf>.

⁵⁷ A national securities exchange is a securities exchange that has registered with the SEC under §6 of the Securities Exchange Act of 1934. See SEC Fast Answers, *National Securities Exchanges*, at <https://www.sec.gov/fast-answers/divisionsmarketregmrexchangeshtml.html>.

⁵⁸ The SEC states that “if a platform offers trading of digital assets that are securities and operates as an ‘exchange,’ as defined by the federal securities laws, then the platform must register with the SEC as a national securities exchange or be exempt from registration.” For more details, see SEC, “Statement on Potentially Unlawful Online Platforms for Trading Digital Assets,” March 7, 2018, at <https://www.sec.gov/news/public-statement/enforcement-tm-statement-potentially-unlawful-online-platforms-trading>.

⁵⁹ Because a cryptocurrency meets the definition of a “commodity” under the Commodity Exchange Act (CEA; P.L. 93-463), the Commodities Futures Trading Commission has authority over them. For more information, see CRS Legal Sidebar LSB10227, *CFTC and Virtual Currencies: New Court Rulings and Implications for Congress*, by Nicole Vanatko.

⁶⁰ SEC Commissioner Hester Peirce, *How We Howey*, May 9, 2019, at <https://www.sec.gov/news/speech/peirce-how-we-howey-050919>.

securities exchanges. For example, these platforms bring together buyers and sellers, execute trades, and display prices.

The general consensus among domestic and international securities regulators regarding digital assets is that regulatory oversight should be balanced with the need to foster financial innovation. However, if digital asset trading platforms are buying and selling securities and fall within the SEC's regulatory regime, then securities regulation's basic objectives should arguably continue to apply.⁶¹ In addition, some international authorities believe that, although digital asset trading platforms may face issues similar to traditional exchanges, regulatory approaches may still need to be adjusted to account for particular operating models that may amplify risks differently.⁶² In general, policymakers contending with major financial innovations have historically focused on addressing risk concerns while tailoring their regulatory framework flexibly to accommodate evolving technology.⁶³

The differences between digital asset “exchanges” and the SEC regulated national securities exchanges could include transparency, fairness, and efficiency.⁶⁴ These are principles guiding the national securities exchange regulation, yet they are perceived as lacking for digital asset “exchanges.”

Nontransparent and Fraudulent Activities

Many digital asset “exchanges” that generally allow trading of digital assets that are not securities, and thus not regulated by the SEC, are reportedly exaggerating their volumes on a routine basis to attract more participation.⁶⁵ Investors are perceived to have no idea whether the trading volume and prices reflect real activities or market manipulation. To take the more frequently studied digital asset Bitcoin for example,⁶⁶ one study shows that 95% of Bitcoin's trading volume displayed on digital asset price and volume aggregator CoinMarketCap.com is either fake or non-economic in nature.⁶⁷ Another widely cited academic study illustrates the scale

⁶¹ SEC, *Statement on Digital Asset Securities Issuance and Trading*, November 16, 2018, at <https://www.sec.gov/news/public-statement/digital-asset-securities-issuance-and-trading>, and Board of the International Organization of Securities Commissions, *Issues, Risks and Regulatory Considerations Relating to Crypto-Asset Trading Platforms*, May 2019, at <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD627.pdf>.

⁶² G7 Working Group on Stablecoins, *Investigating The Impact of Global Stablecoin*, October 2019, at <https://www.bis.org/cpmi/publ/d187.pdf>.

⁶³ 17 C.F.R. §§202, 240, 242, and 249. SEC, “Regulation of Exchanges and Alternative Trading Systems,” 70844-70951, December 22, 1998, at <https://www.federalregister.gov/documents/1998/12/22/98-33299/regulation-of-exchanges-and-alternative-trading-systems>.

⁶⁴ For a more detailed list of principles relating to trading, see International Organization of Securities Commissions, *Methodology for Assessing Implementation of the IOSCO Objectives and Principles of Securities Regulation*, May 2017, at <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD562.pdf>.

⁶⁵ Olga Kharif, “On Crypto Exchanges, The Trades Don’t Always Add Up,” *Bloomberg*, July 25, 2019, at <https://www.bloomberg.com/news/articles/2019-07-25/on-crypto-exchanges-the-trades-don-t-always-add-up>.

⁶⁶ Bitcoin is a commodity rather than a security and is under the CFTC's general anti-fraud and manipulation oversight and enforcement authority. CFTC, *Customer Advisory: Understand the Risks of Virtual Currency Trading*, at https://www.cftc.gov/sites/default/files/idc/groups/public/@customerprotection/documents/file/customeradvisory_urvct121517.pdf. The SEC generally regulates securities transactions and their related intermediaries. The SEC does not have direct oversight of transactions in non-security currencies or commodities. SEC Chairman Jay Clayton, *Chairman's Testimony on Virtual Currencies: The Roles of the SEC and CFTC*, February 6, 2018, at <https://www.sec.gov/news/testimony/testimony-virtual-currencies-oversight-role-us-securities-and-exchange-commission>.

⁶⁷ Bitwise Asset Management, *Presentation to The U.S. Securities and Exchange Commission*, March 19, 2019, at <https://www.sec.gov/comments/sr-nysearca-2019-01/srnysearca201901-5164833-183434.pdf>.

of potential damage that digital asset market manipulations could create, underlining the investor-protection concerns in the digital asset space. The study argues that a single market manipulator likely fueled half of Bitcoin's 2017 price surge that pushed its price close to \$20,000.⁶⁸ The activities were reportedly carried out through the largest digital asset "exchange" at that time, Bitfinex, and used stablecoin Tether to boost the demand for Bitcoin.⁶⁹

Network Congestion and Market Inefficiencies

Unlike national securities exchanges for stocks, digital asset "exchanges" frequently face network congestions or trading halts, calling into question their readiness to serve a growing marketplace. For example, during a rapid digital asset selloff and recovery in May 2021, multiple major digital asset "exchanges" reported technical issues, further intensifying market stress during a volatile time of increased trading.⁷⁰ These market disruptions could generate investor-protection concerns due to investors' inability to get in and out of their investment positions in a timely manner or investors' inability to seek the best execution for their trades—often common features of a fair and efficient trading system.

Given the scale of such issues, some have questioned whether digital asset trading warrants more regulatory safeguards that protect investors and promote more efficient market operations.⁷¹ It is difficult to predict the extent to which an SEC-regulated digital asset national exchange would have mitigated the market manipulations, or if the SEC's regulatory framework is the best fit for addressing all the digital-asset-trading-related policy concerns.

⁶⁸ John Griffin and Amin Shams, *Is Bitcoin Really Un-Tethered?*, SSRN, October 28, 2019, at <https://ssrn.com/abstract=3195066>.

⁶⁹ Phillip Rosenstein, "\$1.4T Bitcoin Manipulation Case Preposterous, Tether Says," *Law360*, November 15, 2019, at <https://www.law360.com/articles/1220333>; New York Attorney General, "Attorney General James Announces Court Order Against 'Crypto' Currency Company Under Investigation For Fraud," press release April 25, 2019, at <https://ag.ny.gov/press-release/2019/attorney-general-james-announces-court-order-against-crypto-currency-company>; and Bitfinex, "Bitfinex Anticipates Meritless and Mercenary Lawsuit Based on Bogus Study," October 5, 2019, at <https://www.bitfinex.com/posts/423>. The Department of Justice (DOJ), Commodity Futures Trading Commission (CFTC), and New York Attorney General's office are reportedly investigating whether Tether was used to prop up Bitcoin's price. Shiraz Jagati, "How Severe Is Roche Freedman's Lawsuit Against Tether and Bitfinex?" *Cointelegraph*, October 11, 2019, at <https://cointelegraph.com/news/how-severe-is-roche-freedmans-lawsuit-against-tether-and-bitfinex>; and Matt Robinson and Tom Schoenberg, "Bitcoin-Rigging Criminal Probe Focused on Tie to Tether," *Bloomberg*, November 20, 2018, at <https://www.bloomberg.com/news/articles/2018-11-20/bitcoin-rigging-criminal-probe-is-said-to-focus-on-tie-to-tether>. For more on the SEC's discussions of the alleged manipulation, see SEC, *Release No. 34-87267 File No. SR-NYSEArca-2019-01*, October 9, 2019, at <https://www.sec.gov/rules/sro/nysearca/2019/34-87267.pdf>.

⁷⁰ Daniel Palmer, "Top Crypto Exchanges See Technical Issues Amid Market Crash," *Coindesk*, May 19, 2021, at <https://www.coindesk.com/top-crypto-exchanges-see-technical-issues-amid-market-crash>; and Robert Hart, "Leading Crypto Exchanges Down As Bitcoin and Ether Plummet," *Forbes*, May 19, 2021, at <https://www.forbes.com/sites/roberthart/2021/05/19/leading-crypto-exchanges-down-as-bitcoin-and-ether-plummet>.

⁷¹ For example, SEC Chairman Jay Clayton reportedly commented that "if [investors] think there's the same rigor around that price discovery as there is on the Nasdaq or New York Stock Exchange ... they are sorely mistaken ... we have to get to a place where we can be confident that trading is better regulated." Jeff Cox, "SEC Chairman Says He Doesn't See Bitcoin Trading on a Major Exchange Until It Is 'Better Regulated,'" *CNBC*, September 20, 2019, at <https://www.cnn.com/2019/09/19/jay-clayton-delivering-alpha.html>. For more discussions on regulatory concerns, see Office of the New York State Attorney General, *A.G. Schneiderman Launches Inquiry Into Cryptocurrency "Exchanges"*, April 17, 2018, at <https://ag.ny.gov/press-release/2018/ag-schneiderman-launches-inquiry-cryptocurrency-exchanges>.

Regulatory Frameworks and SEC Actions

The SEC took its first enforcement action against an unregistered digital asset “exchange” in 2018. The SEC stated that the platform “had both the user interface and underlying functionality of an online national securities exchange and was required to register with the SEC or qualify for an exemption,” but was perceived to have failed to do so.⁷²

Some of the largest digital asset “exchanges” have developed a system to rate digital assets based on the probability that they could be defined as securities.⁷³ These “exchanges” reportedly hope that by so doing they could exclude securities-based digital assets from their unregistered trading platforms, thus avoiding being subject to SEC regulation. This action is part of the digital asset industry’s self-regulation discussion that is gaining momentum. For example, an international law firm’s survey showed that the vast majority of the respondents thought the industry should formalize self-regulation and subject that self-regulation to regulatory oversight.⁷⁴

Many digital asset trading platforms also reportedly sought to obtain exemptions from the SEC to operate as alternative trading systems (ATS).⁷⁵ ATSs are “dark pools” that do not publicly display the size and price of their orders.⁷⁶ ATSs face fewer regulatory requirements than national exchanges, but they must register as broker-dealers and meet certain SEC and Financial Industry Regulatory Authority (FINRA, a self-regulatory organization) compliance and filing requirements, such as custody, books and records, and regulatory examinations.⁷⁷ However, any ATS that transacts more than 5% of the trading volume of any security, which also trade on the national securities exchange system, could face stricter “order display” and “first access” rules that effectively integrate that ATS in part into the national market system.⁷⁸

A number of the largest digital asset “exchanges” (e.g., Coinbase, Gemini, Bitstamp, and ItBit) have obtained state-level regulatory licenses, such as the BitLicense, from New York State’s Department of Financial Services.⁷⁹ The license requirements include certain investor protection, market fraud and manipulation prevention, and illicit activity prevention measures.⁸⁰

⁷² SEC, “SEC Charges EtherDelta Founder With Operating an Unregistered Exchange,” press release, November 8, 2018 at <https://www.sec.gov/news/press-release/2018-258>.

⁷³ Dave Michaels, “Cryptocurrency Exchanges Including Coinbase to Rate Digital Assets,” *Wall Street Journal*, September 30, 2019, at <https://www.wsj.com/articles/cryptocurrency-exchanges-including-coinbase-to-rate-digital-assets-11569835801>.

⁷⁴ The surveys are conducted in March and April of 2018, 62 professionals completed the survey. Most respondents (61%) held executive titles or identified as investors or traders. Respondents were primarily based in the United States and ranged in age from their 20s to 50 and older. Foley & Lardner LLP, *2018 Cryptocurrency Survey*, at <https://www.foley.com/files/uploads/Foley-Cryptocurrency-Survey.pdf>.

⁷⁵ JD Alois, “Here Is The List of SEC Approved Alternative Trading Systems,” *Crowdfund Insider*, April 23, 2019, at <https://www.crowdfundinsider.com/2019/04/146721-here-is-the-list-of-sec-approved-alternative-trading-systems/>.

⁷⁶ SEC, *Alternative Trading Systems (ATSS)*, at <https://www.investor.gov/additional-resources/general-resources/glossary/alternative-trading-systems-atss>.

⁷⁷ SEC, *Alternative Trading System (“ATS”) List*, at <https://www.sec.gov/foia/docs/atstlist.htm>.

⁷⁸ 17 C.F.R. §§202, 240, 242, and 249.

⁷⁹ Robert Gutmann, Jonathan Knehr, Phillip Rapoport, and Ross Stevens, *Buying Bitcoin*, February 1, 2019, at <https://ssrn.com/abstract=3346668>.

⁸⁰ New York State Department of Financial Services, *Virtual Currency Business Activity (BitLicense)*, at https://www.dfs.ny.gov/apps_and_licensing/virtual_currency_businesses.

SEC Chair's Call for a Regulatory Framework Governing Digital Asset "Exchanges"

SEC Chair Gary Gensler has asked Congress for clear authority over digital asset exchanges. At a congressional hearing in May 2021, Gensler voiced concerns regarding the lack of a regulatory framework for digital asset exchanges.⁸¹ He stated that the lack of oversight represents a “gap in our system” that denies traders basic investor protection.⁸² Gensler emphasized the importance of bringing the same protections found in traditional securities markets to digital asset “exchanges.” He added that “none of the exchanges trading crypto tokens has registered yet as an exchange with the SEC. Altogether, this has led to substantially less investor protection than in our traditional securities markets, and to correspondingly greater opportunities for fraud and manipulation.”⁸³ Digital asset investor-protection issues have become one of the SEC’s priorities.

Coinbase's Public Listing

Coinbase, the largest U.S. digital asset “exchange,” went public on April 14, 2021. The public listing offered Coinbase investors indirect exposure to the crypto industry. For example, the vast majority of the company’s revenue is derived from transaction fees—the more cryptocurrency trading that could take place on the Coinbase platform, the higher its earnings and stock valuation could be. By going public, Coinbase subjects itself to more stringent SEC disclosure requirements for public securities offerings.⁸⁴ However, such SEC compliance requirements for public securities issuers is different than regulatory requirements for national securities exchanges. Coinbase as a publicly traded company is now providing more disclosure, but this does not mean that the SEC has been overseeing Coinbase’s digital asset trading operations in a way similar to its oversight of national securities exchanges.

Digital Asset Custody

Custodians provide safekeeping of financial assets. They are financial institutions that do not have legal ownership of assets but are tasked with holding and securing assets, among other administrative functions.⁸⁵ The SEC’s custody rules impose requirements designed to protect client assets from the possibility of being lost or misappropriated. Custodians are important building blocks for the financial services industry. The custody industry for traditional assets is large and concentrated. In the past 90 years, financial custody has evolved from a system of self-custody to one in which major custodians provide asset custody for client accounts. Four banks

⁸¹ Gensler stated that “right now the exchanges, trading these crypto assets do not have a regulatory framework.... [R]ight now there is not a market regulator around these crypto exchanges, and thus there’s really not protection against fraud or manipulation.” Bloomberg transcript for House Financial Services Committee hearing *Game Stopped? Who Wins and Loses When Short Sellers, Social Media, and Retail Investors Collide, Part III*, May 6, 2021, at <https://www.bgov.com/core/news/#!/articles/QSQU5G8JMDC0>.

⁸² Steven Dennis and Jesse Hamilton, “Crypto’s Wild Ride Leaves Washington Grasping at What to Do,” *Bloomberg*, May 19, 2021, at <https://www.bloomberg.com/news/articles/2021-05-19/crypto-s-wild-ride-leaves-washington-grasping-at-how-to-respond>.

⁸³ SEC Chair Gary Gensler, *Testimony Before the Subcommittee on Financial Services and General Government, U.S. House Appropriations Committee*, May 26, 2021, at <https://www.sec.gov/news/testimony/gensler-2021-05-26>.

⁸⁴ For more on SEC disclosure requirements, see CRS In Focus IF11256, *SEC Securities Disclosure: Background and Policy Issues*, by Eva Su.

⁸⁵ §17(f) of the Investment Company Act and 17 C.F.R. §§270.17f-1-270.17f-7; 17 C.F.R. §275.206(4)-2 and the SEC Customer Protection Rule or Rule 15c3-3 under the Securities Exchange Act of 1934 (P.L. 73-291).

(BNY Mellon, J.P. Morgan, State Street, and Citigroup) service around \$114 trillion of global assets under custody.⁸⁶

Digital-asset custody has recently attracted regulatory attention because the SEC custody rules could pose unique challenges for custodians of digital assets. The custody rules were developed for traditional assets, which are easier than digital assets to secure and produce tangible tracks of physical existence or records. Digital assets generally lack physical existence or records produced by intermediaries, as seen in traditional assets such as gold or bank accounts. Common practice in the digital asset industry so far focuses on safeguarding private keys, unique numbers assigned mathematically to digital asset transactions to confirm asset ownership.⁸⁷ This practice raises the question of how possession or control of a digital asset should be defined for regulatory purposes. The challenges include but are not limited to, for example, that a digital asset could have multiple private keys or that a single private key does not exist. As such, some believe the digital asset custody definition should go beyond the verification of the keys to incorporate holistic custody views.⁸⁸

Regulators are evaluating whether custody requirements should be adjusted to account for digital assets' unique operational characteristics. The SEC released a letter to the industry in March 2019 to solicit public input regarding digital asset custody.⁸⁹ The SEC summarized a number of policy issues, including the use of distributed ledger technology (DLT) to record ownership, the use of public and private cryptographic key pairings to transfer digital assets, the ability to restore or recover digital assets once lost, the generally anonymous nature of DLT transactions, and the challenges posed to auditors in examining DLT and digital assets.⁹⁰

On July 8, 2019, the SEC and FINRA issued a joint statement to outline considerations for digital asset securities custody.⁹¹ They acknowledged the challenges of applying custody requirements to digital assets and stated that there are initiatives underway to solicit input from market participants that could help develop new ways to establish "possession or control" for digital asset securities.⁹²

⁸⁶ Fidelity Digital Assets, *Custody in the Age of Digital Assets*, October 2018, at https://www.fidelitydigitalassets.com/bin-public/060_www_fidelity_com/documents/FDAS/custody-in-the-age-of-digital-assets.pdf.

⁸⁷ Some financial institutions offer digital asset custody services. These service providers also consider the control of the private keys as the control of the digital assets. European Financial Reporting Advisory Group, *EFRAG Research Project on Crypto-Assets Analysis of Scope – Initial Coin Offerings and Custodial Services*, May 22, 2019, at <https://www.efrag.org/Assets/Download?assetUrl=%2Fsites%2Fwebpublishing%2FMeeting%20Documents%2F1904050854507613%2F06-01%20-%20TEG%20Issues%20paper%20on%20scope%20of%20crypto-assets.pdf>. For more on the general background of private keys and custody requirements, see Debevoise & Plimpton LLP, *Custody of Digital Assets: Centralized Safekeeping of Decentralized Assets under the Investment Advisers Act*, December 17, 2018, at https://www.debevoise.com/~media/files/insights/publications/2018/12/20181217_custody_of_digital_assets.pdf; and Fidelity Digital Assets, *Custody in the Age of Digital Assets*, October 2018, at https://www.fidelitydigitalassets.com/bin-public/060_www_fidelity_com/documents/FDAS/custody-in-the-age-of-digital-assets.pdf.

⁸⁸ Swen Werner, Managing Director, Global Product Manager at State Street, "What Is Custody of Digital Assets?," *Global Custodian*, at <https://www.globalcustodian.com/blog/custody-digital-assets/>.

⁸⁹ SEC, "Engaging on Non-DVP Custodial Practices and Digital Assets," March 12, 2019, at <https://www.sec.gov/investment/non-dvp-and-custody-digital-assets-031219-206>.

⁹⁰ SEC, "Engaging on Non-DVP Custodial Practices and Digital Assets."

⁹¹ SEC Division of Trading and Markets and FINRA Office of General Counsel, *Joint Staff Statement on Broker-Dealer Custody of Digital Asset Securities*, July 8, 2019, at <https://www.sec.gov/news/public-statement/joint-staff-statement-broker-dealer-custody-digital-asset-securities>.

⁹² SEC Division of Trading and Markets and FINRA Office of General Counsel, *Joint Staff Statement on Broker-*

On December 23, 2020, the SEC issued a statement and request for comment regarding digital asset securities custody.⁹³ In the request, the SEC asked about digital asset custody best practices, processes, risk disclosure, and risk implications, among other things. Amendments to the custody rules have been included in the SEC's 2021 rulemaking agenda.⁹⁴

Digital Asset Exchange-Traded Funds

ETFs are pooled investment vehicles that gather and invest money from a variety of investors.⁹⁵ ETFs combine features of both mutual funds and stocks and can trade on national exchanges. Some industry practitioners hope that the ETF structure could incorporate digital assets.⁹⁶ Individual investors typically buy digital assets, for example, Bitcoins, from other owners or through digital asset trading platforms and other intermediaries.⁹⁷ Individual investors currently cannot directly purchase digital assets (e.g., Bitcoins) from the SEC-regulated national securities exchanges.⁹⁸ Some have proposed allowing retail investors to buy or sell digital assets on regulated exchanges through the ETF structure—where, instead of directly trading digital assets, the investors would buy or sell publicly traded ETF shares with values linked to underlying digital assets. This section discusses potential Bitcoin ETFs' policy implications for the digital asset industry.

Bitcoin ETF Proposals

As mentioned previously, some digital assets are securities subject to securities laws and regulations. But digital assets could also be structured as securities products, even if the underlying assets are not securities. The proposed Bitcoin ETFs are the most prominent example. Although Bitcoin is not a security,⁹⁹ Bitcoin ETFs would be securities products with value linked to the underlying Bitcoins and are subject to securities regulation, including the Investment Company Act of 1940 and Investment Advisers Act of 1940. Reportedly, around 10 cryptocurrency ETF applications were awaiting SEC approval as of May 2021.¹⁰⁰ But the SEC has not yet approved any cryptocurrency ETFs because of market manipulation and fraud

Dealer Custody of Digital Asset Securities, July 8, 2019.

⁹³ SEC, "SEC Issues Statement and Requests Comment Regarding the Custody of Digital Asset Securities by Special Purpose Broker-Dealers," press release, December 23, 2020, at <https://www.sec.gov/news/press-release/2020-340>.

⁹⁴ Office of Management and Budget, *Agency Rule List—Spring 2021*, at <https://www.reginfo.gov/public/do/eAgendaMain>.

⁹⁵ For more on ETFs, see CRS Report R45318, *Exchange-Traded Funds (ETFs): Issues for Congress*, by Eva Su.

⁹⁶ David Weisberger, "The Case for a Bitcoin ETF," *Coindesk*, November 23, 2019, at <https://www.coindesk.com/the-case-for-a-bitcoin-etf>.

⁹⁷ Kevin Voigt, "How to Invest in Bitcoin," June 14, 2019, at <https://www.nerdwallet.com/blog/investing/how-to-invest-in-bitcoin/>.

⁹⁸ However, two commodities trading platforms—Chicago Board Options Exchange (Cboe) and CME Group—offer Bitcoin futures trading.

⁹⁹ SEC Division of Corporate Finance Director William Hinman, "Digital Asset Transactions: When Howey Met Gary (Plastic)," speech delivered at Yahoo Finance All Markets Summit: Crypto, San Francisco, CA, June 14, 2018, at <https://www.sec.gov/news/speech/speech-hinman-061418>.

¹⁰⁰ Katherine Greifeld and Claire Ballentine, "Bitcoin ETF Approval Odds Grow Longer After Gensler Critique," *Bloomberg*, May 10, 2021, at <https://www.bloomberg.com/news/articles/2021-05-10/bitcoin-etf-approval-odds-grow-longer-after-gensler-critique>.

concerns. While U.S. regulators have been more cautious, in Canada, multiple Ethereum and Bitcoin ETFs have received regulatory approval and popular market reception.¹⁰¹

The SEC repeatedly stated in its rejections that Bitcoin ETF proposals did not meet standards governing national securities exchanges.¹⁰² Specifically, the SEC stated that the proposals have not met the requirements in Section 6(b)(5) of the Exchange Act that order national exchanges to be “designed to prevent fraudulent and manipulative acts and practices.”¹⁰³

The agency articulated its rationale in a 2018 staff letter that listed challenges related to a Bitcoin ETF. In addition to market manipulation concerns, major Bitcoin ETF challenges included valuation and pricing, custody, and liquidity.¹⁰⁴ For example, all ETFs must frequently value their portfolio assets. The valuation process determines what investors should pay for the ETF shares and how the ETFs perform. Some worry that the Bitcoin ETFs would not be able to obtain the information necessary to adequately value the digital assets given the high volatility and fragmentation of the markets.

Bitcoin ETFs also have supporters. One institutional investor argues that ETFs provide a familiar and convenient way for investors to invest in digital assets, enabling them to participate in digital asset trading and partake in the potential financial gains brought by technological advancements, despite the potential trade-offs with respect to investor protection.¹⁰⁵ In a public statement about a dissenting vote on a disapproved Bitcoin ETF proposal, SEC Commissioner Hester Peirce stated that certain Bitcoin ETF proposals do satisfy the Section 6(b)(5) statutory requirements and that the disapproval may dampen innovation and inhibit institutionalization.¹⁰⁶

Stablecoins in Securities Markets

Stablecoins are a type of digital asset designed to maintain a stable value by linking its value to another asset or a basket of assets, typically collateralized by fiat currencies or facilitated by algorithms.¹⁰⁷ The best-known example of stablecoins are Tether and Diem (see discussion below). These stablecoins have generated many policy concerns, inspired new considerations for comparable use cases from the private and public sectors, and fueled discussions of other global stablecoins.

¹⁰¹ Nate DiCamillo, “Canada Approves Three Ethereum ETFs in One Day,” *Coindesk*, April 16, 2021, at <https://www.coindesk.com/purpose-investments-gets-approval-to-launch-first-ether-etf-in-canada>.

¹⁰² For example, see SEC, *Release No. 34-87267, Self-Regulatory Organizations; NYSE Arca, Inc.; Order Disapproving a Proposed Rule Change, as Modified by Amendment No. 1, Relating to the Listing and Trading of Shares of the Bitwise Bitcoin ETF Trust Under NYSE Arca Rule 8.201-E*, October 9, 2019, at <https://www.sec.gov/rules/sro/nysearca/2019/34-87267.pdf>.

¹⁰³ 15 U.S.C. §78f(b)(5).

¹⁰⁴ SEC staff letter, *Engaging on Fund Innovation and Crypto-currency Related Holdings*, January 18, 2018, at <https://www.sec.gov/divisions/investment/noaction/2018/cryptocurrency-011818.htm>. For more information on custody, see “Digital Asset Custody” section of the report. Liquidity refers to the ease of buying and selling securities without affecting the price.

¹⁰⁵ Jordan Clifford, “The Road to a Bitcoin ETF,” *Medium*, August 14, 2018, at <https://medium.com/scalar-capital/the-road-to-a-bitcoin-etf-4364b07a7e15>.

¹⁰⁶ SEC Commissioner Hester Peirce, “Dissent of Commissioner Hester M. Peirce to Release No. 34-83723; File No. SR-BatsBZX-2016-30,” July 26, 2019, at <https://www.sec.gov/news/public-statement/peirce-dissent-34-83723>.

¹⁰⁷ Financial Stability Board, *Regulatory Issues of Stablecoins*, October 18, 2019, at <https://www.fsb.org/wp-content/uploads/P181019.pdf>.

A stablecoin arrangement's individual components are complex, leading to many crosscutting policy discussions. The Financial Stability Board, an international financial authority, characterizes a stablecoin's components as the following:

Entities/structures involved in issuing stablecoins; entities/structures that manage assets linked to the coins; infrastructure for transferring coins; market participants/structures facing users (e.g., platforms/exchanges, wallet providers) and the governance structure for the arrangement, including the role and responsibilities of a possible governance body and the underlying stabilisation mechanism used for the stablecoin.¹⁰⁸

Stablecoin-related policy concerns vary; they include, market integrity, investor protection, financial stability, monetary policy, payments, and illicit activity prevention.¹⁰⁹ Some of these concerns are outside of the scope of this report, which focuses on securities regulation. In addition to securities regulators, other regulatory authorities—central banks, payment system regulators, and financial crime enforcement entities—have been involved in stablecoin monitoring and oversight.

The Managed Stablecoins are Securities Act of 2019 (H.R. 5197 in the 116th Congress) proposed subjecting stablecoins to securities regulation by amending the statutory definition of the term *security* to include a new category of securities called “managed stablecoins.” The bill would have defined a managed stablecoin as a digital asset that has either (1) a market value that is determined, in whole or significant part, by reference to the value of a pool or basket of assets that are held, designated, or managed by one or more persons; or (2) holders that are entitled to obtain payment which is determined, in whole or in significant part, on the basis of the value of a pool or basket of assets held, designated, or managed by one or more persons. Because managed stablecoin issuers are generally perceived as not acknowledging their stablecoins as securities, this bill would have removed regulatory uncertainty by stating that a managed stablecoin is a security and therefore subject to securities regulation.

This section uses a Facebook-backed stablecoin (Diem) and the world's largest stablecoin (Tether) as examples to illustrate some policy concerns and potential regulatory frameworks for stablecoin.

Facebook-Backed Diem (Formerly Libra) and Its Perceived ETF Structure

The Facebook-backed stablecoin Libra, which was later renamed Diem,¹¹⁰ has attracted congressional attention since its announcement on June 18, 2019. The Diem Association, the nonprofit that oversees Diem's development, reportedly planned to launch a U.S. dollar stablecoin pilot in 2021.¹¹¹ At related congressional hearings in 2019, Facebook received multiple questions regarding whether Libra is an ETF and how it should be regulated.¹¹² These questions

¹⁰⁸ Financial Stability Board, *Regulatory Issues of Stablecoins*, October 18, 2019, at <https://www.fsb.org/wp-content/uploads/P181019.pdf>.

¹⁰⁹ G7 Working Group on Stablecoins, *Investigating The Impact of Global Stablecoin*, October 2019, at <https://www.bis.org/cpmi/publ/d187.pdf>.

¹¹⁰ Andrew Ackerman, “Facebook-Backed Digital Currency Project Revamps to Address U.S. Regulators’ Concerns,” *Wall Street Journal*, May 12, 2021, at <https://www.wsj.com/articles/facebook-backed-digital-currency-project-revamps-to-address-u-s-regulators-concerns-11620854340>.

¹¹¹ Ryan Browne, “Facebook-Backed Diem Aims to Launch Digital Currency Pilot Later This Year,” *CNBC*, April 20, 2021, at <https://www.cnn.com/2021/04/20/facebook-backed-diem-aims-to-launch-digital-currency-pilot-in-2021.html>.

¹¹² U.S. Congress, House Committee on Financial Services, *Examining Facebook’s Proposed Cryptocurrency and Its Impact on Consumers, Investors, and the American Financial System*, hearing, 116th Cong., 1st sess., July 17, 2019, at <https://financialservices.house.gov/calendar/eventsingle.aspx?EventID=404001>; and U.S. Congress, Senate Committee

arose because to create the stablecoin, Libra would be backed by reserve assets, including bank deposits and short-term government securities.¹¹³ New Libra tokens could be created or destroyed only by authorized sellers. Some industry practitioners argue that Libra's proposed operational structure is similar to the creation and redemption process used by ETFs.¹¹⁴ For details on ETF structure and operations, see CRS Report R45318, *Exchange-Traded Funds (ETFs): Issues for Congress*, by Eva Su.

Facebook acknowledged at a House hearing that Libra uses operational mechanisms that are similar to ETFs but stated its view that it is still a payment tool and not an investment vehicle.¹¹⁵ Diem's design was based on Libra but incorporated updates. Diem's core structure for creating a reserve asset portfolio and designating dealers continues to somewhat resemble the ETF structure in previous arguments.¹¹⁶ If deemed an ETF, Diem must comply with the SEC's regulatory regime governing securities, investment advisors, and investment companies. SEC approval would be required to launch the project. The SEC was reportedly evaluating whether such structure makes it an ETF.¹¹⁷

Tether's Reserve Asset Portfolio: Could Mandatory Disclosures Be Helpful?

The largest stablecoin, Tether, was created in 2014 with the intention to be fully backed by fiat currency.¹¹⁸ Tether's prospectus states that "each tether issued into circulation will be backed in a one-to-one ratio with the equivalent amount of corresponding fiat currency held in reserves by Hong Kong based Tether Limited."¹¹⁹ But it raised investor-protection concerns because investigations revealed that it was not *fully backed* at all times. The New York attorney general's office charged Tether and its affiliated trading platform Bitfinex \$18.5 million to settle a case in 2021, claiming that the stablecoin overstated its reserves and covered up losses.¹²⁰ Tether and Bitfinex denied any wrongdoing but paid the fine and agreed to provide quarterly disclosures of reserve assets. At Tether's first disclosure of its reserves breakdown,¹²¹ investors learned for the

on Banking, Housing, and Urban Affairs, *Examining Facebook's Proposed Digital Currency and Data Privacy Considerations*, 116th Cong., 1st sess., July 16, 2019, S. Hrg. 116-71 (Washington: GPO, 2019), at <https://www.banking.senate.gov/hearings/examining-facebooks-proposed-digital-currency-and-data-privacy-considerations>.

¹¹³ Libra Association, "Libra White Paper," 2019, at <https://libra.org/en-US/white-paper/>.

¹¹⁴ Dave Nagid, "Most Interesting ETF Filing Ever: Libra," ETF.com, June 25, 2019, at <https://www.etf.com/sections/blog/most-interesting-etf-filing-ever-libra>; and Izabella Kaminska, "Treating Stablecoins Like ETFs," *Financial Times*, December 9, 2019, at <https://www.ft.com/content/2dd03db3-67c4-4ccc-8a9c-1439a1b24fae>.

¹¹⁵ U.S. Congress, House Committee on Financial Services, *Examining Facebook's Proposed Cryptocurrency and Its Impact on Consumers, Investors, and the American Financial System*, hearing, 116th Cong., 1st sess., at <https://financialservices.house.gov/calendar/eventsingle.aspx?EventID=404001>.

¹¹⁶ Diem, *White Paper 2.0*, at <https://www.diem.com/en-us/white-paper>.

¹¹⁷ Dave Michaels and Lalita Clozel, "SEC Weighs Whether to Regulate Facebook's Libra," *Wall Street Journal*, July 13, 2019, at <https://www.wsj.com/articles/sec-weighs-whether-to-regulate-facebooks-libra-11563015601>.

¹¹⁸ For size of Tether, see CoinMarketCap at <https://coinmarketcap.com>.

¹¹⁹ Tether, *Tether: Fiat Currencies on the Bitcoin Blockchain*, at <https://tether.to/wp-content/uploads/2016/06/TetherWhitePaper.pdf>.

¹²⁰ New York Attorney General Letitia James, *Attorney General James Ends Virtual Currency Trading Platform Bitfinex's Illegal Activities in New York*, February 23, 2021, at <https://ag.ny.gov/press-release/2021/attorney-general-james-ends-virtual-currency-trading-platform-bitfinexs-illegal>; and Olga Kharif, "Bitfinex Settles New York Probe into Tether, Hiding Losses," *Bloomberg*, February 23, 2021, at <https://www.bloomberg.com/news/articles/2021-02-23/crypto-exchange-bitfinex-settles-with-new-york-to-end-probe>.

¹²¹ Tether, *Reserve Breakdown at March 31, 2021*, at <https://tether.to/wp-content/uploads/2021/05/tether-march-31-2021-reserves-breakdown.pdf>.

first time that a large portion of Tether’s reserves was in unspecified commercial paper, a type of short-term debt instrument.¹²² With Tether’s market valuation achieving around \$60 billion as of June 2, 2021, some observers worry that potential deceptive activities may create widespread harm to investors.¹²³ The usefulness of Tether’s disclosure of reserve asset breakdowns, which helped investors to identify potential deceptive activities, drew discussions about whether such disclosure should be more broadly mandated at other stablecoins. But others worry that additional disclosures may increase compliance costs and hinder innovation.

As of May 2021, the SEC has not publicly acknowledged enforcement actions against Tether. But a President’s Working Group on Financial Markets statement clarified that, depending on design and other factors, a stablecoin may constitute a security.¹²⁴ Critics of Tether have speculated that the SEC could seek enforcement actions.¹²⁵

Non-Fungible Tokens (NFTs)

NFTs are digital assets linking to certificates of authenticity using blockchain technology. NFTs are different from “fungible” tokens, such as Bitcoin and Ether, which have each unit being the same as any other units. NFTs are “non-fungible,” meaning each token and the authenticated object it represents is unique. Through the creation of digital assets that are authenticated and have a proof of origin, NFTs could generate purchaser attraction or new uses for the uniquely “stamped” digital assets.¹²⁶ Most NFTs are held on the blockchain-based network Ethereum.¹²⁷

NFTs date back to 2015.¹²⁸ But they started to gain popularity in 2017 following the introduction of a new type of NFT—CryptoKitties—that offer individually designed (non-fungible) digital cats.¹²⁹ Public awareness of NFTs heightened in 2021, when auctions of NFT artworks reportedly fetched millions of dollars.¹³⁰

NFTs could reach to the realm of property rights that may generate profits. For example, NFTs could represent digital assets in a virtual world where the assets are controlled by their owners.¹³¹ The use of such assets by other participants (e.g., digital tools, houses, and airplanes in the virtual world) could involve payments to the owners. NFTs could also be attached to other forms of

¹²² Jemima Kelly, “Tether Says Its Reserves Are Backed by Cash to the Tune of ... 2.9%,” *Financial Times*, May 14, 2021, at <https://www.ft.com/content/529eb4e6-796a-4e81-8064-5967bbe3b4d9>.

¹²³ Jacob Silverman, “Is Tether Just a Scam to Enrich Bitcoin Investors?,” *New Republic*, January 13, 2021, at <https://newrepublic.com/article/160905/tether-cryptocurrency-scam-enrich-bitcoin-investors>.

¹²⁴ President’s Working Group on Financial Markets, *Statement on Key Regulatory and Supervisory Issues Relevant to Certain Stablecoins*, December 23, 2021, at <https://home.treasury.gov/system/files/136/PWG-Stablecoin-Statement-12-23-2020-CLEAN.pdf>.

¹²⁵ Simon Chandler, “Will Tether Be Classified as a Security and Sued by the SEC?,” *CryptoVantage*, January 12, 2021, at <https://www.cryptovantage.com/news/will-tether-be-classified-as-a-security-and-sued-by-the-sec>.

¹²⁶ Josie Thaddeus-John, “What Are NFTs, Anyway? One Just Sold for \$69 Million,” *New York Times*, March 11, 2021, at <https://www.nytimes.com/2021/03/11/arts/design/what-is-an-nft.html>.

¹²⁷ Nonfungible.com and L’Atelier BNP Paribas, *Non-Fungible Tokens Yearly Report 2020*, at <https://nonfungible.com/subscribe/nft-report-2020>.

¹²⁸ Nonfungible.com and L’Atelier BNP Paribas, *Non-Fungible Tokens Yearly Report 2020*.

¹²⁹ See CryptoKitties at <https://www.cryptokitties.co>.

¹³⁰ James T Army and Olga Kharif, “These Crypto Bros Want to Be the Guggenheims of NFTs,” *Bloomberg*, April 15, 2021, at <https://www.bloomberg.com/news/features/2021-04-15/nft-collectors-this-is-who-s-buying-beeple-pak-mad-dog-jones-micah-johnson>.

¹³¹ For more examples, see Steven Kurutz, “The Curious World of NFT Real Estate and Design,” *New York Times*, May 25, 2021, at <https://www.nytimes.com/2021/05/25/fashion/selling-virtual-real-estate.html>.

property rights in the real world. For example, NFTs could help enable the identification and tracking of real world objects, making the individualized value-creation process transparent. Some characterize these types of application as akin to “acting as a kind of ‘digital twin’ to anything existing in the real world and enabling the ownership and exchange of physical possessions within digital marketplaces.”¹³²

Could NFTs Be Securities?

The regulation of the NFT market is not yet clearly defined. Just like paintings and music that are generally not securities, the NFTs that resemble the characteristics of conventional artwork are less likely to be securities and subject to securities regulation. But the line is not so clear for more complicated NFT transactions. If the NFTs could draw income streams such as royalty payments or dividends, they also have potential to be deemed securities. At this point, however, the SEC has not publicly acknowledged any NFTs as securities and subject to SEC regulation.

Fractionalized NFTs

Fractionalization allows investors to purchase a portion of an expensive NFT or a fraction of a large NFT collection.¹³³ But fractionalized NFTs could be securities and thus subject to securities regulation. SEC Commissioner Hester Peirce warned fractionalized NFT issuers at a summit, stating that “the whole concept of an NFT is supposed to be non-fungible [meaning that] in general, it’s less likely to be a security,” but if issuers decide to “sell fractional interests” in NFTs, “you better be careful that you’re not creating something that’s an investment product, that is a security.”¹³⁴

In April 2021, an industry participant filed a petition with the SEC regarding recommending that the commission initiate an NFT-related rulemaking.¹³⁵ The petition recommends that the SEC publish a concept release (i.e., notice of advanced rulemaking) on the regulation of NFTs and propose rules to clarify when NFTs are securities. As of May 2021, the SEC has not issued any guidance on NFTs.

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¹³² In addition to Ethereum network, NFTs could be held on other blockchains, such as Matic, Flow, and Wax.

¹³³ Proskauer, “NFTs Are Interesting but Fractionalized Non-Fungible Tokens (F-NFTs) May Present Even More Challenging Legal Issues,” *JD Supra*, April 23, 2021, at <https://www.jdsupra.com/legalnews/nfts-are-interesting-but-fractionalized-9904209>.

¹³⁴ Samuel Haig, “SEC’s ‘Crypto Mom’ Warns Selling Fractionalized NFTs Could Break the Law,” *CoinTelegraph*, March 26, 2021, at <https://cointelegraph.com/news/sec-s-crypto-mom-warns-selling-fractionalized-nfts-could-break-the-law>; and Martin Young, “Going to Pieces: Fractionalized NFT Projects Gather Steam,” *CoinTelegraph*, March 18, 2021, at <https://cointelegraph.com/news/going-to-pieces-fractionalized-nft-projects-gather-steam>.

¹³⁵ Sustainable Holdings, *Rulemaking Regarding Non-fungible Tokens*, April 12, 2021, at <https://www.sec.gov/rules/petitions/2021/petn4-771.pdf>; and National Law Review, *Rulemaking Petition Seeks SEC Guidance on NFTs*, May 6, 2021, at <https://www.natlawreview.com/article/rulemaking-petition-seeks-sec-guidance-nfts>.

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