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Financial Innovation: Digital Assets and Initial Coin Offerings

This In Focus provides an overview of policy issues regarding “digital assets” in the capital markets. Digital assets (often referred to as “crypto assets,” among other terminology) are digital representations of value made possible by cryptography and blockchain (see CRS Report R45116, *Blockchain: Background and Policy Issues*). They were originally designed to facilitate transfer of value without a trusted third-party intermediary (such as a bank). While debate remains as to the proper terms for and classification of these assets, a commonly cited industry source on the topic, *Cryptoassets: The Innovative Investor’s Guide to Bitcoin and Beyond*, provides a categorization of digital assets into three main types:

Cryptocurrencies serve as a medium of exchange, store of value, and unit measurement of account. Cryptocurrencies themselves often have little inherent value, but they are used to price the value of other assets (for more details, see CRS In Focus IF10824, *Introduction to Financial Services: “Cryptocurrencies”*). Bitcoin, launched in 2009—widely considered the first digital asset—is a cryptocurrency.

Crypto commodities are raw material building blocks that serve as inputs into finished products. Examples of crypto commodities are storage capacity and network bandwidth.

Crypto tokens provide means to access finished digital goods and services in games, media, and more.

Although more than 2,000 digital assets in the forms of cryptocurrencies and crypto tokens exist today, a majority of their valuation is contributed by Bitcoin, Ether, Ripple, and other major cryptocurrencies.

Initial Coin Offerings

An initial coin offering (ICO) is a method of raising capital through the creation and sale of digital assets. A typical ICO transaction involves the issuer selling new digital “coins”—crypto tokens—to individual or institutional investors. Investors pay for these tokens in either cryptocurrencies or traditional currencies. ICOs are often compared with initial public offerings (IPOs) of the traditional financial world because both are methods for companies to 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, they do not receive an equity stake representing company ownership. ICO funding activities reportedly started to escalate in 2017, and the largest ICO has raised \$4.2 billion (**Figure 1**).

Figure 1. Top 5 ICOs (September 2018; in \$Millions)

Ranking	Project	Amount	Business Description
1	EOS	\$4,198	Open-source platform
2	Telegram	\$1,700	Messaging service
3	Ruby-X	\$1,196	Cryptocurrency exchange
4	Petro	\$735	Venezuelan national cryptocurrency
5	TaTaTu	\$575	Social entertainment

Source: CRS based on data and ranking from CoinSchedule.

Digital Assets as a New Asset Class

Digital assets have quickly emerged as a new asset class. Within the past two years, this new asset class has experienced rapid growth, high volatility, maturing practices, and regulatory scrutiny. A recent global survey by Dalia Research indicates that digital assets have gained mainstream awareness, with 74% of respondents being aware of the term “cryptocurrency.” A July 2018 Financial Stability Board (FSB) report identifies other asset classes, such as gold and equities, as comparators with crypto assets. This status enhances digital assets’ long-term prospects and attractiveness to investors for investment portfolio diversification needs.

Securities Regulation

The Securities and Exchange Commission (SEC) is the main regulator overseeing securities markets, including digital asset-related investments, and investor protection. Many digital assets arguably qualify as *securities* if they promise a return based on the management practices of those offering them, among other conditions. Depending on their specific characteristics, digital assets could also be subject to other forms of regulation. For example, cryptocurrency Bitcoin is a *digital asset* but not a *security* because it is not issued by a profit-seeking business (for more details, see CRS Report R45301, *Securities Regulation and Initial Coin Offerings: A Legal Primer*). Once a digital asset is deemed a security, existing securities regulations apply without any differentiation between digital assets and traditional securities. There are already ICOs filed through the SEC’s existing private and public securities offering processes. For a comprehensive overview of securities offerings in general, see Table 1 of CRS Report R45221, *Capital Markets, Securities Offerings, and Related Policy Issues*.

Policy Issues

Congress and regulators face many policy challenges at this early stage of ICO and digital asset development in the capital markets, a number of which are discussed below, but an overriding concern is the ability to provide regulatory clarity and investor protection without hindering financial innovation and technological advancements.

Regulatory Fragmentation. Digital asset issuers and investors face a steep learning curve in comprehending the regulatory landscape and determining how or if securities laws apply to them. As noted above, 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. For example, for certain digital assets, the SEC treats them as “securities,” the Commodity Futures Trading Commission treats them as “commodities,” and the Internal Revenue Service treats them as “property.” State regulators oversee digital assets through state money transfer laws, and the Treasury Department’s Financial Crimes Enforcement Network monitors digital assets for anti-money laundering purposes.

Enforcement Capacity. With the emergence of digital assets as a new asset class, the SEC has deployed new enforcement capacities. In 2017, the SEC established a new Cyber Unit and the SEC increased its monitoring of and enforcement actions against entities engaged in digital asset transactions. In addition to issuers and investors, who are the end contributors and recipients of funding, there are market intermediaries—namely, broker-dealers and investment managers—against whom the SEC has also taken enforcement actions. In addition to more traditional SEC enforcement actions against entities for non-compliance with securities regulations, the SEC has also halted allegedly fraudulent ICOs.

Investor Protection. ICO and digital asset investors—which may include less-sophisticated retail investors, who may not be positioned to comprehend or tolerate high risks—may be especially prone to new types of fraud and manipulation, leading to questions about investor protection. First, there appears to be high levels of ICO scams and business failures. One 2018 study from Satis Group found that 81% of ICOs are scams and another 11% fail for operational reasons, although other studies suggest a lower but still significant rate of fraud and failure. Second, many ICO companies fail to comply with registration and disclosure obligations associated with traditional securities, potentially affecting investors’ ability to understand their exposure risks. Third, the high volatility of digital assets’ valuations creates large gains and losses. Lastly, digital assets operate outside the traditional financial system and thus may not offer common types of transaction protections. For example, although banks have the option to halt or reverse suspicious transactions and associate transactions with user identity, a digital asset transaction is generally irreversible through intermediaries.

Trading. Investors use trading platforms to buy or sell digital assets, including coins offered in ICOs. Many of these trading platforms are registered as money services businesses (MSB) instead of national securities exchanges. MSBs are part of a money transfer or payment operations infrastructure that was not designed for digital asset trading purposes, which may create the potential for operational inefficiencies and investor protection concerns. The SEC has stated that the online platforms for trading digital assets could potentially be unlawful if they are trading securities and operating as “exchanges” but have not registered with

the SEC. In response to increased regulatory attention, some crypto exchanges have become federally regulated by acquiring companies with existing federal licenses.

Cybersecurity. Because digital asset transactions take place solely on the Internet, digital asset investors may risk losing their investments as well as personal information through hacker attacks. A December 2017 Ernst & Young study estimates that more than 10% of ICO proceeds are lost as a result of such attacks.

International Coordination. The creation and exchange of digital assets take place online and are generally not restricted by national boundaries. As such, the industry is prone to international regulatory arbitrage, meaning crypto activities may flow toward countries that offer the most favorable regulatory conditions. For example, Malta is an international crypto-exchange hub, largely attributable to its pro-crypto government guidelines. Crypto enterprises could also make activities officially available only to countries with less regulation. Block.one’s EOS, the world’s largest ICO, for example, reportedly excluded U.S. and Chinese ICO investors in order to circumvent applicable regulations. In addition, the funds invested into digital asset transactions may travel overseas without the investors’ consent, and U.S. regulators may not be able to pursue criminals or recover funds in such situations.

Policy Proposals

Many policy proposals exist to address various issues discussed above, including proposals to (1) unify the regulatory space by designating a primary regulator for all digital assets; (2) increase investor protection through more customized ICO disclosure requirements, for example, through the standardization of ICO whitepapers, which are common forms of ICO operative documents describing the tokens and business models; (3) promote trading and exchanges by considering safe harbors for crypto exchanges and providing regulatory exemptions for money transmitters; and (4) provide testing grounds for ICO companies through federal-level “regulatory sandboxes,” which are already in place in more than 20 countries and multiple states. When viewed in the aggregate, these policy proposals tend to aim for either greater investor protection or regulatory exemptions from investor protection and other provisions that could encourage innovation or address the unique attributes of the new asset class.

Although a 2018 cryptocurrency survey conducted by Foley & Lardner suggests that the crypto industry desires greater regulatory certainty and formalized self-regulation, SEC Chairman Clayton stated in August that the existing securities regulation has served U.S. investors and companies well through periods of significant innovation for over 80 years. The SEC has not promulgated rules or exemptions specific to digital assets or ICOs. Rather, the SEC’s efforts in this area continue to revolve around fostering new technologies and new investment opportunities while requiring information disclosures for investor protection.

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