

Initial Coin Offerings

The Frontier of Financing



February 2018

Initial coin offerings (ICOs) are a new fundraising model whereby a venture issues a new cryptocurrency to raise capital. ICOs offer both benefits and risks. This paper provides general background information on initial coin offerings, while our forthcoming companion report, *ICOs: Defining Characteristics and Taxonomy of Crypto Coins and Tokens*, delves into the technical elements and characteristics of initial coin offerings.

What is an ICO?

An ICO is a means of crowdfunding startups, whereby the venture issues a new crypto token¹, specific to its own protocol or network, to investors in exchange for capital—typically an established cryptocurrency like ether or bitcoin. Startups use the raised capital for future expenses associated with developing their business.

A typical ICO works as follows: a white paper outlining the project's objectives and purpose is released to the public and a new crypto token is created on a platform such as Ethereum. Network participants settle on the tokens value through different auction models which play out during the fundraising process. Most ICOs function by having investors transfer funds (typically ether or bitcoin) to a smart contract that safeguards the capital and automatically redistributes an equivalent value in the new crypto asset in the future based upon pre-determined conditions. Some firms using ICOs have raised millions of dollars seconds after opening bidding, illustrating both the frenzied market and the reach of the technology.

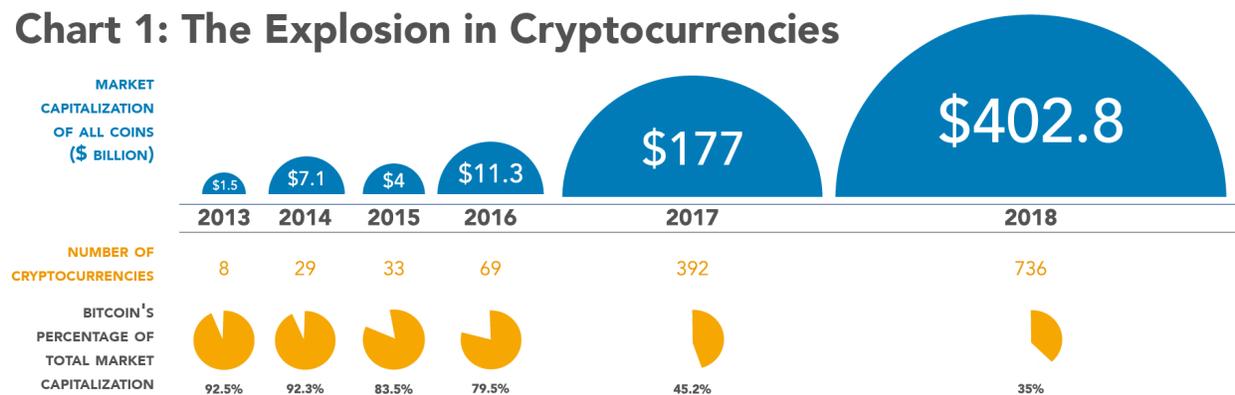
ICOs leverage crypto and smart contract technologies to replace venture capital (VC) and other funding models with more direct, automated, and decentralized solutions for participants to fund and then benefit from the development of a crypto network. Some entities launching ICOs have designed their tokens to function as utility tokens or user tokens. In other words, it's necessary to hold the new crypto coin to have access to the company's products or services. Our companion report, *ICOs: Defining Characteristics and Taxonomy of Crypto Coins and Tokens*, looks at 46 characteristics of the coin/token offerings to better understand the ICO landscape.

History

The first ICO was launched in 2013 by Mastercoin (now called Omni), a protocol built on the Bitcoin blockchain. J.R. Willett, a Seattle-based software-engineer, wrote a white paper outlining planned features of the ICO, which raised approximately \$500,000 worth of bitcoin. Since then, hundreds of initial coin offerings have followed. The Decentralized Autonomous Organization (DAO) became the first ICO to raise capital for a new crypto token on the Ethereum platform. While the DAO succeeded in raising money—over \$160 million—a hacker was able to steal millions from the ICO project due to security vulnerabilities. Despite this initial setback, Ethereum has since become the primary platform for ICOs.

¹ Sometimes interchangeably referred to as "crypto coin." Please see the glossary in our companion piece for more information.

Chart 1: The Explosion in Cryptocurrencies



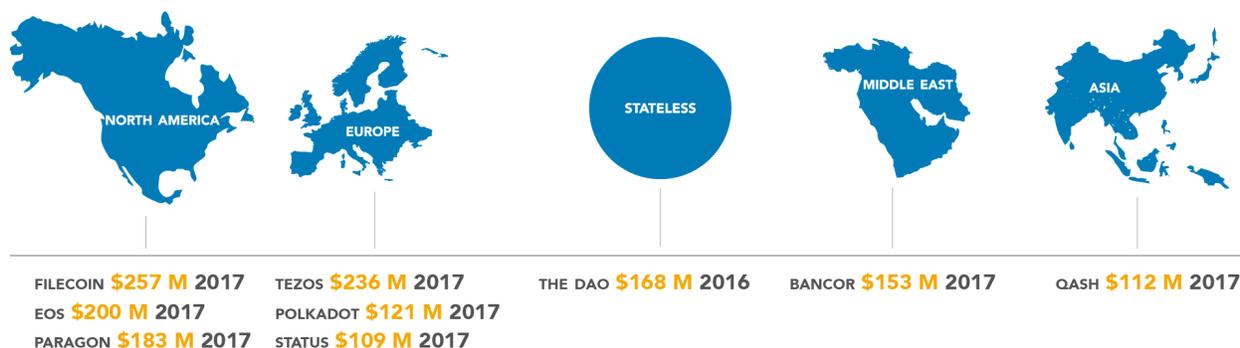
Data based on cryptocurrencies >\$1 million in market capitalization. Numbers for 2013-2017 calculated based on data from the last week of August 2017. 2018 calculated based on data from February 2, 2018. Source: Visual Capitalist, CoinMarketCap, IIF.

Current Landscape

There are several reasons why ICOs became one of the major stories in financial innovation in 2017. First, the meteoric rise of bitcoin, whose price jumped over 2,200% in 11 months, and the strong expansion of the overall cryptocurrency market (see Chart 1) created headline-worthy stories that sent investors searching for the next big windfall in crypto. The widespread media coverage of the mushrooming space provided the jet fuel for an ICO explosion and attracted enterprising individuals with a variety of motives. Second, many of the early bitcoin investors experienced massive gains and saw ICOs as a way to diversify their holdings within the crypto ecosystem. Third, thanks to the potential of distributed ledger technology and the number of promising use cases ranging from digital identity to smart contracts, and regulatory compliance to cross-border payments, blockchain companies proliferated at such a rapid rate that VC firms could not fulfill the demand for capital. Many startups were compelled to turn to ICOs as a mechanism for funding and also realized that it was easier than pursuing seed rounds through traditional venture capital models. Fourth, many average investors were drawn to the prospect of investing in a tech company early on, something that has traditionally only been possible for VCs and accredited investors. Finally, the staggering return on investment that some token sales provided early buyers further attracted businesses and investors to the space.

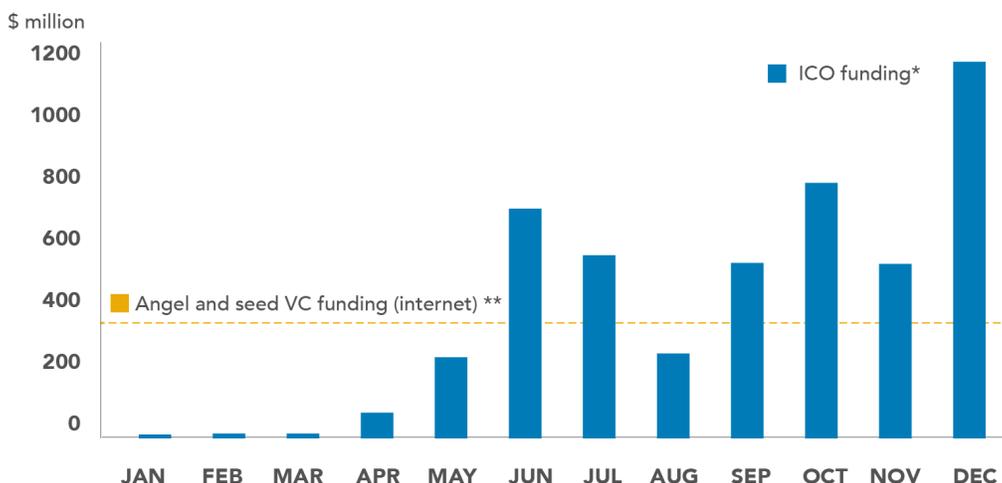
In this fertile environment, ICOs raised approximately \$5 billion in 2017 (see Chart 3), challenging early-stage venture capital for the year. Moreover, eight out of the nine biggest ICOs to date took place last year (see Chart 2), with Filecoin leading the way with \$257 million raised from individual investors and VCs, including Union Square Ventures and Sequoia Capital.

Chart 2: The Largest ICOs To Date



Source: Visual Capitalist 12/12/17.

Chart 3: ICO vs. Early-Stage VC Funding 2017



*Calculations based on average of CoinSchedule and ICORating data.
**Average monthly funding based on data from January to July.
Source: Visual Capitalist 12/12/17.

Despite the large drop in the value of the crypto market since its high in December, the innovative funding structure continues to catch the eye of ventures, including more mature startups and larger companies. For example, Overstock's subsidiary, tZERO, initiated a token sale in December that is expected to last until February 16; Kodak will be running an ICO after it verifies the "accredited investor" status of approximately 40,000 people who applied to invest in the company's KodakCoin sale; and Telegram, an encrypted messaging company with more than 100 million users, aims to raise \$2 billion in the coming months through an ICO.

Issues and Regulatory Response

While initial coin offerings provide more efficient and open systems to fund new ventures, many are ignoring legal requirements or leveraging the new technology for fraud and criminal activity. Some ICOs are swindling uninformed and gullible investors seeking the "next bitcoin." The white papers behind numerous ICO projects are either poorly conceived, lack adequate disclosures, or so ill-defined that the organizers could be free to walk away with the proceeds without launching a viable venture. A recent [report](#) released by an international group of legal academics led by the University of Luxembourg found that of the more than 400 ICOs in their study, only 32.7% of the white papers mention the law applicable to the ICO; only 14.2% mention the regulatory status of the ICO; and only 14.46% provide information on whether the funding received from investors will be pooled or remain segregated.

Moreover, the authors write that "in 48.88% of the cases the white papers do not provide any information at all about the initiators or backers, and in 23.44% of the cases they do not offer any description of the project's financial circumstances, i.e. nothing about how the capital collected is to be used and in what stages, etc." It seems probable that the coming months will see a steady stream of ICOs revealed as outright scams (see BitConnect case study box). The United States Securities and Exchange Commission (SEC) has already [exposed](#) some as frauds, including REcoin Group Foundation and Diamond Reserve Club World.

BitConnect

BitConnect, a Bitcoin investment lending platform, shut down in January 2018 after receiving cease and desist letters from American securities regulators. It had adopted a four-tier investment system based on the sum of initial deposits, and promised to pay investors a 1% return per day and up to 40% total return per month.

Tezos

One of the largest ICOs from last year was Tezos, which raised \$236 million in July. The venture is in danger of derailing following internal disputes between the founders of the network (a U.S.-based couple and U.S. enterprise Dynamic Ledger Solutions) and the Swiss Foundation employed to handle the coin offering, "Tezzie." According to various reports, it is unclear whether investors in Tezos will receive a return on their investment and where the collected funds are being safekept. Several class-action lawsuits have been filed against the controversial blockchain project, alleging that the Tezos token sale organizers deceptively sold unregistered securities in violation of U.S. federal and state law, and are asking for the recovery of all investments in Tezos' ICO. The latest lawsuit seeks to prevent the transfer or sale of the digital assets raised during the ICO until the case is settled.

Legal infighting between ICO organizers has created further risk for investors when ICOs launch without strong contracts outlining clear compensation, governance, and business agreements (see Tezos case study box).

In addition, there are outside risks to investing in new cryptocurrency projects. It is estimated that 10% of the funds raised through ICOs have been lost or stolen in hacker attacks in 2017. Investors may be unaware that these new entities lack the cyber defense capabilities and insurance protections that established financial service companies are required to maintain.

Even ICOs with legitimate and well-designed ventures may encounter legal challenges because of the regulatory gray space in which they operate. In particular, regulators are considering how securities laws around private placements apply. Jay Clayton, the chairman of the U.S. Securities and Exchange Commission, said in testimony at a February 6, 2018 hearing before the U.S. Senate Committee on Banking, Housing, and Urban

Affairs that he has yet to encounter an ICO he doesn't consider a security.

Regulators worldwide have begun issuing warnings about legal requirements, future enforcement actions, and the potential for investor fraud. China and South Korea have banned ICOs, while regulators in Hong Kong, the UK, the Netherlands, and the U.S. have issued warnings that ICOs may violate securities laws. The Monetary Authority of Singapore has sought to strike a balanced tone of encouraging innovation while warning against fraud. They have published a "[Guide to Digital Token Offerings](#)" which seeks to inform when a coin offering is deemed a security and should comply with appropriate laws and regulation. Regulators of the world have also recognized the new challenges crypto coins and tokens represent because they are digital and inherently global. As a response, they are taking up the topic in G20 and Financial Stability Board (FSB) meetings this year to be better informed and coordinated. Cross-border risks, including money laundering, terrorism financing, and sanctions, top the list of concerns.

The crypto industry has launched several initiatives to try and get ahead of regulatory action. The ICO platform [Waves](#) was an early attempt to automate reporting, legal, tax and accounting, know your customer (KYC), and business due diligence standards for ICOs and blockchain companies. On January 8, 2018, the Switzerland-based [Crypto Valley Association](#) published a Policy Framework, including a General Code of Conduct (CoC) and a CoC for the creation of Decentralized Ecosystems (DECoC). This followed white papers in the autumn of 2017 from the [ICO Governance Foundation](#) and the U.S.-based [SAFT \(Simple Agreement for Future Tokens\) Project](#), which, in cooperation with the law firm Cooley, produced "Toward a Compliant Token Sale Framework."

While industry has explored ways to self-regulate, and traditional regulators are beginning to pay more attention to the space, the fact of the matter is that unless clear guidance, a framework, and enforcement are implemented, the true potential of initial coin offerings as a viable funding mechanism will be limited. Criminal activity and scams would likely continue, eventually pushing average non-technical investors away from the space, and legitimate entrepreneurs with potentially transformative ideas could hesitate to pursue the fundraising mechanism for fear of being fined or imprisoned for unknowingly violating a law in the regulatory gray space in which initial coin offerings operate.

The debate about ICOs is likely to sharpen this year as industry, the public sector, and investors work to sort out valuable innovation from gross fraud and criminal activity. Crypto tokenization is an expanding trend in financial technology, and ICOs offer people looking to connect capital with ideas and ventures an efficient, automated, and distributed means to do so. Many public sector leaders have pointed out the need to recognize legitimate innovation and encourage its development while addressing new risks and blocking crime. The financial services industry will continue to be at the lead of developing and adapting new technologies for more efficient and accessible finance while working with the public sector to ensure that it is a safe and level marketplace.

Readers interested in more detail on the technical aspects of ICOs and the crypto tokens they offer, can find them in our companion report, *ICOs: Defining Characteristics and Taxonomy of Crypto Coins and Tokens*.

Dogecoin

Dogecoin (DOGE) was introduced in 2014 as a “joke currency” to poke fun at the crypto craze. It is named after a popular internet meme featuring a Shiba Inu dog. While it had been involved with fundraising for charities on Twitter, including for the Jamaican Bobsled team’s trip to the 2014 Winter Olympics, the cryptocurrency’s valuation has been hard to explain and most suspect manipulation as the market capitalization jumped from \$25 million at the beginning of 2017 to over \$1 billion by the start of 2018 with a brief spike to \$2 billion. Huge gyrations indicate classic “pump and dump” tactics. Dogecoin co-founder Jackson Palmer expressed misgivings, saying it is “totally possible that price manipulation is taking place, as the markets are unregulated and anyone can tap into an exchange API and wreak havoc.” For example, bad actors could write a script to trade back and forth with themselves on an exchange with zero or no transaction fees and drive up the price.



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