

Understanding initial coin offerings

A new means of raising funds based on blockchain

SUMMARY

Initial coin offerings (ICOs) are a relatively new method of raising capital for early-stage ventures. They allow businesses to raise capital for their projects, by issuing digital tokens in exchange for crypto assets or fiat currencies. They constitute an alternative to more traditional sources of start-up funding such as venture capital (VC) and angel finance.

ICOs can potentially offer advantages in comparison with traditional ways of raising capital. At the same time, their opacity and the general tendency for issuers to exploit regulatory loopholes can carry significant risk for investors, may make ICOs vulnerable to money laundering and terrorist financing, and could even create financial stability concerns.

ICOs have been met with a wide range of initial regulatory responses: from an outright ban in the case of China and South Korea, to more supportive approaches in other jurisdictions, with Singapore in Asia and Switzerland in Europe leading the way. As for the European Union (EU) and the United States, the relevant regulatory agencies initially published warning notices, reinforced by statements that securities laws could apply and registration be necessary. The EU went a step further and is currently seeking to partially regulate ICOs, with a proposal for a regulation on markets in crypto-assets (MiCA regulation). Meanwhile, some Member States are currently implementing regulatory sandboxes, to provide an impetus for innovation without imposing the immediate burden of regulation.



IN THIS BRIEFING

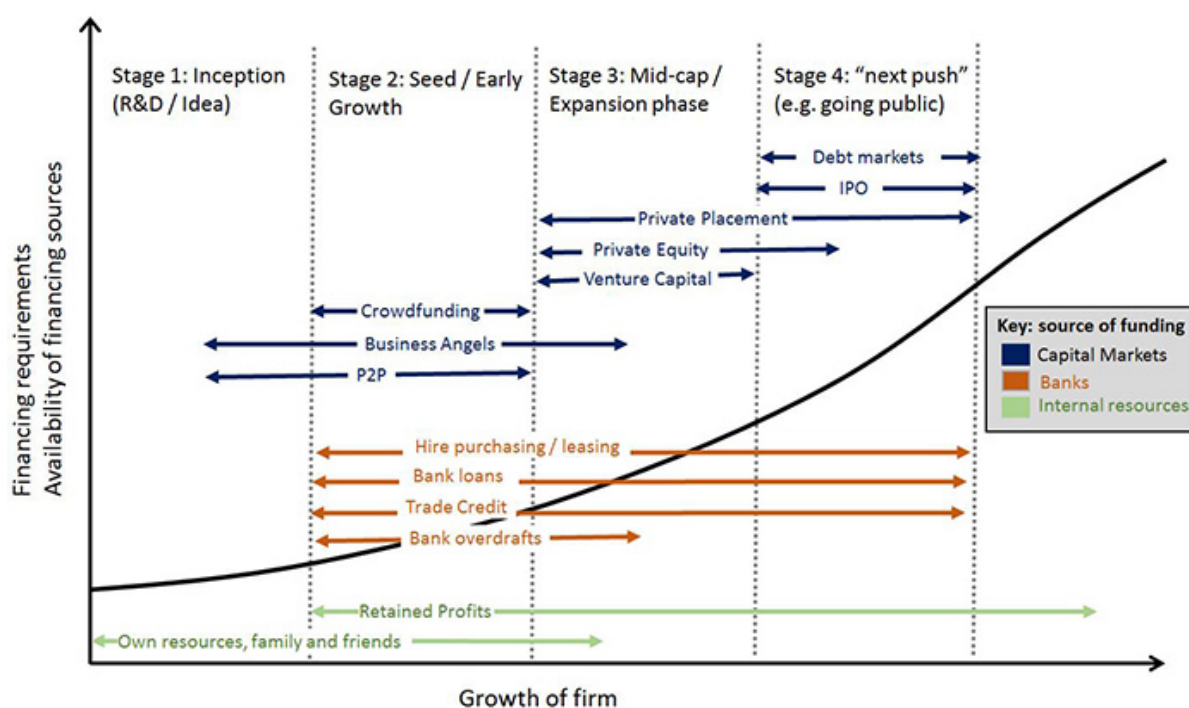
- Introduction
- The funding escalator and ICOs
- The main elements of an ICO
- Comparison with other types of capital raising
- The ICO process
- Potential benefits and challenges
- Regulatory perspectives and state of play

Introduction

Initial coin offerings (ICOs) are a new method of raising capital for early-stage ventures. They constitute an [alternative](#) to more traditional sources of start-up funding such as venture capital (VC) and angel finance.

The funding escalator and ICOs

A company's financing needs evolve the more it grows and specialises. At the same time, while the company moves from a start-up, to a growth and eventually a mature stage, it has different sources of revenue and faces different funding constraints.¹



Source: [European Commission](#).

The various types of funding throughout the funding escalator can be classified according to whether they imply risk concentration or not.

Funding with risk concentration

In less mature companies, such as seed or start-up companies and scale-up firms, funding takes the form of venture investments, i.e. long-term investments in private, unlisted companies with the potential for growth. Venture investment is concentrated in one or a few investors, such as **business angels**,² or **venture capital**³ and **private equity funds**.⁴ In return for investment in the company, these investors receive equity stakes in the business and partner with management teams to support growth plans and make improvements to the business with the aim of increasing its value. The returns on investment are realised either through a sale (or exit) of the business or through the distribution of the firm's profits.

Funding with risk dispersion

Funding before a company goes public can also take place in ways that disperse risk. Relevant examples include, among other practices, **crowdfunding**⁵ and **private placement**.⁶

What is the downside?

While the aforementioned funding methods present various advantages, they also have less appealing elements. One of them is that to obtain early seed round capital, entrepreneurs are [forced](#) to give up significant equity in their own creations. Another is that entrepreneurs without connections to early stage investors are unlikely to raise the capital needed to be successful. Lastly, (except in the case of crowdfunding) early round capital raising is usually limited by securities laws to wealthy accredited investors – thus depriving entrepreneurs from other sources of capital.

The above reasons led to the development of a new type of financing, initial coin offerings.

The main elements of an ICO

[Initial coin offerings](#) offer a way to raise corporate capital by issuing digital tokens in exchange for fiat currencies or other crypto-assets. Some common elements – the use of tokens, the publication of a white paper and the importance of online marketing in the process – set them apart from similar financing techniques.

The token

Crypto tokens have been [defined](#) as digitally scarce units of value the properties and circulation of which are prescribed via computer code. There are three broad [categories of token](#):

- **currency** tokens can be used for payment in transactions with anyone who is willing to accept them;
- **utility** tokens can offer a variety of benefits, including access to particular services offered by the company;
- **asset or investment** tokens give the owner the right to participate in the issuer's future returns and, in some cases, voting or other participation rights.

The white paper

It is standard market practice for ICOs that the issuer publishes a '[white paper](#)' on its website. This document usually [contains](#) information on the issuer, the project to be developed (e.g. a business plan), information technology (IT) protocols, the public blockchain adopted, token supply, pricing and the distribution mechanism.

Online marketing

In ICOs, online marketing is the primary (and often the only) communication and distribution channel. This is contrary to [initial public offerings](#) (IPOs) where online marketing and the publication of prospectuses on websites complement the stock exchange as the traditional sales channel.

Comparison with initial public offerings

ICOs do at present share some [elements](#) in common with initial public offerings (IPOs), the process through which companies go public by selling stock shares to the public for the first time. [Both](#) are used to raise funds for budding companies, both can attract significant amounts of investment, and both have the potential to make company founders wealthy.

Contrary to ICOs, however, IPOs are subject to registration and ongoing compliance requirements. This means, among other things, that the process for IPOs is lengthier and that the assistance of intermediaries (usually an investment bank and/or legal counsel) is required. Also, the two types of offering target companies at [different stages](#) in their lifecycles, i.e. for the moment, ICOs are used mainly at an earlier stage in the funding escalator, as a tool for venture financing. In this regard, ICOs seem to be an alternative to venture capital financing for project promoters, allowing them to avoid the complex negotiations and clauses present in venture capital.⁷ In addition to the above, Paul

[Momtaz](#) notes that contrary to conventional financing methods, which usually attract specific types of investor, ICOs are suitable to attract all types of investor (from early adopters and altruistic investors to institutional investors).⁸ Another difference between ICOs and the aforementioned methods of financing is that ICOs provide investors with very early exit options⁹ as many ICO tokens get listed on a token exchange platform within three months of the ICO ending. However, the most important difference is potentially that, due to regulatory concerns, the vast majority of ICO-funded startups [refrained](#) until recently from issuing equity and securities via token sales.

The ICO process

The [first step](#) is to set up the details of the campaign. This includes creating tokens with a specific bundle of rights attached to them, setting the timeline for the liquidity events, targeting an audience, pricing the tokens, issuing the 'white paper' and the business plan for the venture, and setting up social media tools for the marketing activity.¹⁰ The entrepreneurial firm normally announces [additional information](#), such as an advisory board, and hires experts to conduct the ICO campaign, in exchange for either capital or a considerable number of tokens.

The second step is the pre-ICO or presale. At this stage, a small proportion of the issued tokens are sold at a discount to a select group of contributors or to the public at large. [Pre-ICOs](#) are often conducted to obtain funds to cover the costs for the actual ICO,¹¹ as well as to test the market demand for tokens or the attraction of notable contributors to the project's cause. At this stage, investors are usually able to invest fiat as opposed to cryptocurrencies, which simplifies the process for both investors and capital seekers, since they do not need to change fiat to cryptocurrencies.¹²

During the ICO phase, starting from the predefined opening time for the call for contributions, cryptocurrencies can be sent to a public digital wallet address. Payment usually occurs in ether, since the majority of ICOs occur on the Ethereum blockchain.¹³ Many ICOs place a cap on the number of tokens sold. Depending on the coding of the smart contract, tokens are sent to the wallets of the contributors, according to the exchange rate awarded by the timing or size of the contribution, which can happen immediately or after the crowd sale is concluded. While many sales last about a month, their actual duration depends on token demand.¹⁴

The [third step](#) takes place after an ICO campaign: several actors aim to exchange tokens for fiat, and transactions involving tokens, fiat and cryptocurrencies rise significantly. A critical milestone for every cryptocurrency therefore is the listing on a token exchange following the ICO. The listing ensures that the tokens can be traded, hence it provides the main source of liquidity. Liquidity attracts new investors and paves the way for using the token as an actual currency.

It must also be noted, however, that for many ICOs the journey ends with a [delisting](#). This signals a project's termination, as there is no platform for the currency to be exchanged. Momtaz notes that, by February 2018, as many as 46 % of 2017's ICOs had already reportedly failed.

Advantages and challenges

Potential advantages linked to ICOs

For issuers, ICOs come with a range of [advantages](#). First, they circumvent typical financial intermediaries such as banks and stock exchanges, thus speeding up the offering process and lowering capital costs. Second, the technology required is relatively simple and accessible.¹⁵ These lower barriers allow for a 'democratisation' of capital markets, because they facilitate market entry for issuers. Third, partly due to the increase in interest around crypto assets, the amount of money that can be raised is far higher than with other fintech models (e.g. crowdfunding), sometimes even more than traditional IPOs.

Potential issues raised

ICOs raise several issues. Among them, Zetzsche et al. [highlight](#) the following.

Information asymmetry

Given that up to now ICOs have not been subject to specific regulatory requirements, there has been no consistency with regard to the content of white papers. The authors note that the only consistent factor tends to be a technical description of the underlying technology for which funding is sought, as well as some description of the potential use and benefits of the said technology. Moreover, even for those white papers that are comprehensive, their level of detail cannot be compared with a prospectus required under securities regulation. In addition, the information provided is not verified (e.g. through an audit). Lastly, elements of this asymmetry (e.g. information on how much money participants invested in the project) persist after the ICO.

Capital misallocation

Zetzsche et al. note that, for the time being, the rise of ICOs seems to have been based less on robust market fundamentals and more on investor euphoria. These bubble characteristics may lead to a misallocation of capital: rather than a channelling money to the most productive use, as should be the case with markets, ICOs may be used to channel money to recipients for their own personal uses, in a range of frauds and scams.¹⁶

Weak legal protections

Zetzsche et al. note that the impact of private law liability as a correcting factor is severely limited. Wulf Kaal adds that, in cases of bankruptcy, token holders have no recourse after the debt holders and outside creditors are satisfied with the liquidation value of the entity.¹⁷

Lack of control

Further to the above, Wulf Kaal notes that the [absence](#) of voting rights associated with the tokens implies that, unlike shareholders in the traditional corporate infrastructure, who are able to vote for or against directors or to nominate directors, ICO investors have no control over the promoters whatsoever.

High volatility

Lastly, according to Kaal, ICOs are subject to very high volatility. Unlike any prior financing vehicles, ICOs provide the highest possible liquidity for investors at the earliest possible point in the lifecycle of the issuer. Investors in legacy businesses receive significant assurances pertaining to the business success of the issuing entity because the issuing entity is subject to ongoing disclosure requirements. ICOs, on the other hand, give investors very limited assurances through upfront and continuous disclosures, rendering the token market highly volatile.

Regulatory perspectives and state of play in the EU

Zetzsche et al. outline three possible ways of responding to the challenges posed by ICOs.

Outright ban

One option is an outright ban of ICOs such as the one imposed by the Chinese and South Korean regulators. While such a solution appears to provide legal certainty at low regulatory cost, it may suppress innovation and, as in many cases of general prohibition, runs the risk of being ineffective.

Private ordering

Private ordering is an initiative by market participants to develop frameworks, so as to police their own behaviour out of their own self-interest: if investors feel their interests are secure, they will be

more likely to put their money into the market. While the authors note that such an approach was used over a century ago in the case of stock exchanges, they express doubt as to whether it is enough and suggest that a more direct regulatory response from regulators and policy makers may be appropriate.

Regulatory warnings

Another option – the one chosen in the EU and the US – is for regulators to issue market warnings.

Kaal [examined](#) the 25 most important jurisdictions by market capitalisation and found that only a very small minority had banned ICOs and cryptocurrencies altogether. The majority of countries permitted ICOs and cryptocurrencies or did not explicitly prohibit them. Moreover, governments either have chosen to use existing laws to regulate cryptocurrencies or are waiting to see how other countries react to the crypto evolution.

State of play in the European Union

European Securities and Markets Authority position

In November 2017, the European Securities and Markets Authority ([ESMA](#)) issued two statements on ICOs, one on the risks posed by ICOs for [investors](#) and one on the rules applicable to [firms](#) involved in ICOs. ESMA observed that the amount of money raised from investors through ICOs was growing quickly and expressed concern that investors may be unaware of the significant risks that they are taking when investing in ICOs. Additionally, ESMA was concerned about the speculation around ICOs and crypto-assets, as well as about the fact that firms involved in ICOs may conduct their activities without complying with the relevant applicable EU legislation.

In its March 2018 communication on a '[FinTech action plan](#)', the European Commission asked the European supervisory authorities to assess the suitability of the EU regulatory framework with regard to ICOs and crypto-assets more generally. In this context, in January 2019, ESMA published [advice](#) on ICOs and crypto-assets. In this document, ESMA noted that, provided the relevant safeguards are in place, ICOs could provide a useful alternative funding source for blockchain start-ups and other innovative businesses that would find it difficult or costly to raise capital through traditional funding channels. They could also provide a fast and effective means of raising money from a diverse investor base.

At the same time, it highlighted that most businesses raising capital through ICOs are at the initial stages of development, often not even operating businesses but just ideas. As a result, there is a high risk that they fail and that investors lose their capital. Furthermore, it noted the widespread reports of and concerns over fraudulent ICOs (even up to 80 % of ICOs), whereby crypto-assets either do not exist or issuers or developers disappear after the ICO. Lastly, it stated that crypto-assets in general may raise specific technology and cyber security risks, because of their very nature and also the fact that distributed ledger technology is still very new and largely untested in financial markets.

On existing EU regulation, ESMA noted that:

- prospectus rules¹⁸ should apply to crypto-assets offered to the public, including through ICOs, where the instruments qualify as transferable securities;
- the scope of the Directive on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing (the AML Directive) should be reviewed to take account of market developments, including with regard to providers of crypto-to-crypto exchange services and providers of financial services for ICOs;
- EU policymakers should consider the need to have appropriate risk disclosure requirements in place,¹⁹ to ensure that consumers are aware of the risks prior to committing funds to crypto-assets.

National initiatives – Regulatory sandboxes

Further to the above and in parallel, national regulators in some 14 Member States have established 'regulatory sandboxes'.²⁰ These programmes could contribute by fostering innovation without imposing the immediate burden of regulation. In doing so, they could allow for innovation to be tested with the market, before the regulations enter into force.

European Commission initiatives

Lastly, the European Commission took the initiative in March 2020 to propose a policy strategy to further enable and support the potential of digital finance in terms of innovation and competition while mitigating the risks. The strategy is accompanied by a package of legislative measures, including proposals for regulations on [markets in crypto assets](#), on a [pilot regime](#) for market infrastructures based on distributed ledger technology (DLT) and on [digital operational resilience](#) for the financial sector. Those regulations, currently under discussion by the co-legislators could further strengthen the relevant regulatory framework.

European Parliament

In its [resolution](#) on 'Further development of the capital markets union – improving access to capital market finance, in particular by small- and medium-sized enterprises (SMEs), and further enabling retail investor participation', adopted in October 2020, Parliament stressed that that crypto-assets are becoming a non-traditional financing channel for SMEs, notably ICOs that have the potential to fund innovative start-ups and scale-ups. In this context, Parliament insisted that clear and consistent guidance at EU level is needed on the applicability of existing regulatory and prudential processes to crypto-assets that qualify as financial instruments under EU legislation, in order to provide regulatory certainty and avoid a non-level playing field, forum shopping and regulatory arbitrage in the internal market.

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ENDNOTES

- ¹ For a more detailed introduction, see the [Economic Analysis](#) accompanying the Commission communication on the mid-term review of the capital markets union action plan, COM(2017) 292 final, June 2017.
- ² 'Business angels' are private individuals that provide financial support and often operational counsel mainly to start-ups, without relying on financial intermediaries. With their know-how, capital and contacts, business angels provide support throughout the growing phase of the company they invest in.
- ³ This category of investors manages the high risk of failure by diversifying their investments across a portfolio of companies, and through careful selection of the firms in which they invest, using specialist expertise to assess the quality of the entrepreneurial team and their proposed product (Gompers and Lerner (1999)). They take – often substantial – control rights and use them to enhance the quality of decision-making and mitigate the potential for opportunism by the entrepreneur.
- ⁴ Private equity refers to investments in the equity of a company provided on a private basis. Investors are funds that collect funds from banks or institutional investors and invest to acquire an indirect strategic interest in entities, to generate synergies for their businesses or achieve public policy goals.
- ⁵ Crowdfunding refers to raising capital from large numbers of small contributions for a specific project via web platforms.
- ⁶ A private placement is generally understood as a medium- or a long-term financing transaction of debt securities (in loan or a bond format) between a listed or unlisted company and a few institutional investors (e.g. mutual funds, pension funds), without a public offer.
- ⁷ These include veto and control power, pre-emption rights, representation on the board of directors, and tag along and drag along options.
- ⁸ Reward and equity crowdfunding attracts early adopters and angel investors, respectively. Venture capital and IPOs are traditionally more attractive to sophisticated investors.
- ⁹ Exits in crowdfunding campaigns or venture capital are often not realisable before a certain maturity stage and not realisable in the short run, as a potential acquirer needs to be identified or an IPO needs to be prepared. In contrast, ICOs provide the earliest exit option of all financing methods by delegating the future development of a platform to a decentralised network of developers and supporters often before a product prototype or service is developed.
- ¹⁰ These [social media tools](#) include channels of direct contact between the promoters and the public (e.g. Telegram), discussion forums on the trends in the crypto-world (e.g. BitcoinTalk) and active accounts on major traditional social media. Moreover, some online ICO data aggregators provide rating services for tokens using panels of supposed experts (e.g. ICOBench), both for upcoming ICOs and for some of the concluded ones that are actively trading.

- ¹¹ Such as the costs incurred from promotional ads, strategic hires, and the roadshow.
- ¹² In general, investors use trading exchanges, such as bitfinex.com, to exchange fiat (e.g. dollars or euros) for cryptocurrencies (mostly ether) in order to invest in the ICO. Investors in the private sale or presale phase typically receive discounts on the token price.
- ¹³ [S. T. Howell et al](#) note that the Ethereum blockchain dominates the token market, with almost three quarters of tokens using the ERC20 Ethereum protocol as a template for smart contracts.
- ¹⁴ A crowd sale can end as soon as the maximum target (called 'hard-cap') is reached, or in response to scarce demand.
- ¹⁵ P. Maume and M. Fromberger note that the ERC20 Token Standard, a standardised Ethereum smart contract, allows the issue of a token using 57 lines of smart contract code and that fewer than 100 lines of code seems to be typical in the industry.
- ¹⁶ [L. Hornuf et al](#) note that, most often, fraudsters deceive investors of ICOs through phishing attacks, in which case external fraudsters or the issuer itself gets hold of the investments improperly. Frequently, the issuer also simply disappears after receiving the funds, which has often been referred to as exit fraud. In total, the authors could identify 274 fraud cases (188 suspected and 175 confirmed) within the 1 393 ICOs studied.
- ¹⁷ In contrast, in a typical venture capital seed stage investment, the venture capital fund obtains at least a simple liquidity preference. This allows venture capital funds to reclaim their initial seed investment before other creditors are satisfied.
- ¹⁸ The [Prospectus Regulation](#) requires publication of a prospectus before the offer of securities to the public or the admission to trading of such securities on a regulated market situated or operating within a Member State, unless certain exclusions or exemptions apply. In particular, the Prospectus Regulation specifies that the prospectus shall contain the necessary information, which is material to an investor for making an informed assessment of the financial condition of the issuer and of any guarantor, the rights attaching to the securities and the reasons for the issuance and its impact on the issuer. The information shall be written and presented in an easily analysable and comprehensible form.
- ¹⁹ Including in relation to the issuer, the project, the rights attached to the crypto-asset, the underlying technology used and potential conflicts of interest.
- ²⁰ These are programmes under which certain developments are allowed to happen without being fully subject to the legal frameworks that may be applicable, but acting under the watchful eye of the regulator and within predefined boundaries. For more on regulatory sandboxes, see [Regulatory Sandboxes and Innovation Hubs for FinTech](#), Policy Department for Economic, Scientific and Quality of Life Policies, European Parliament, September 2020.

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