

SVCA *Singapore Venture Capital
& Private Equity Association*

Initial Coin Offerings (ICOs):

Study & Commentary

FEBRUARY 2019

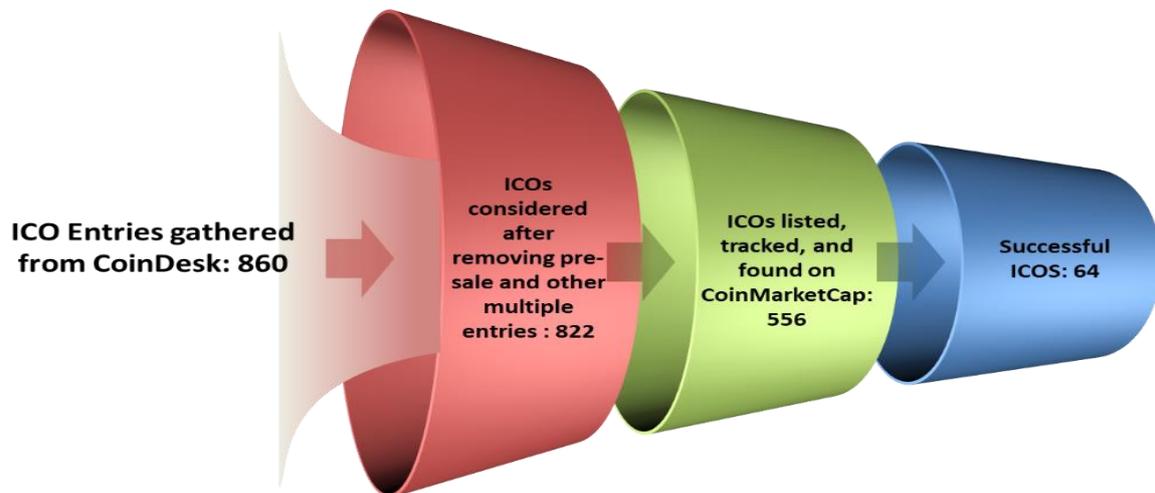
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Methodology



For this study on Initial Coin Offerings (ICO), 860 ICO entries were gleaned from the CoinDesk database and compared against CoinMarketCap's historical data of listed cryptocurrency tokens. 822 ICOs were considered after filtering the entries for pre-sale and other multiple entries. 556 ICOs were found listed on 170 exchanges as recorded by CoinMarketCap from their listing date to 31st October 2018. The historical data of these ICOs were compared against various metrics such as presence of whitepaper, use of GitHub repository, Venture Capital backing and number of exchange listings to detect if any of these factors were potential influencers of ICO success.

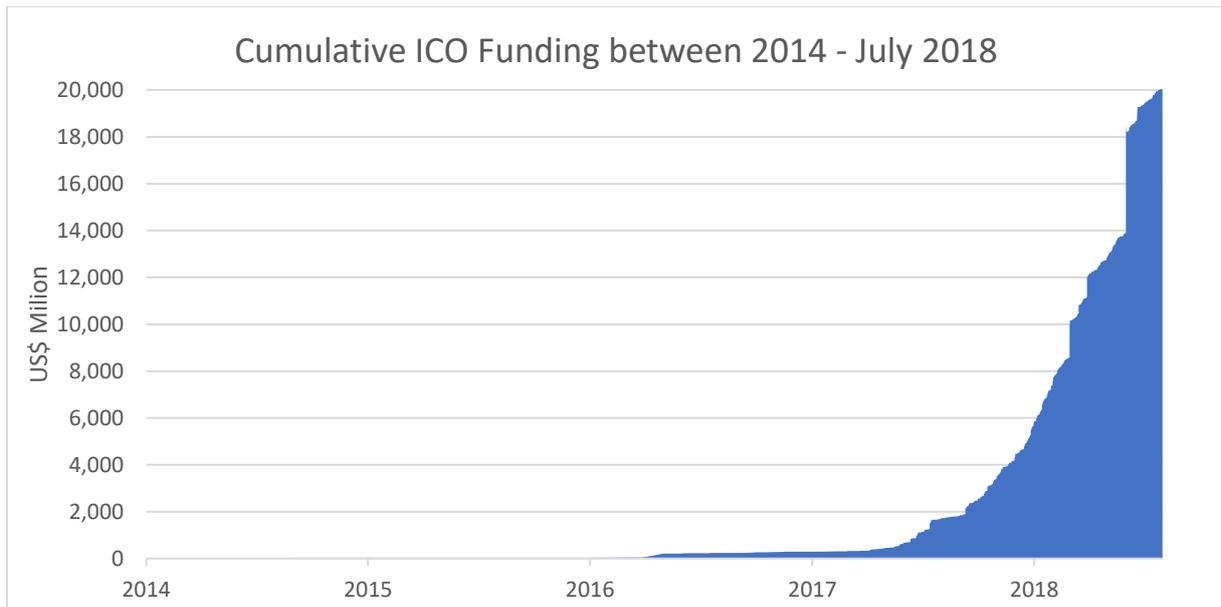
Country data was gathered from ICObench and VC investment data from Crunchbase. VC-backed ICOs include only investments through traditional VC financing rounds (seed, series A, series B etc) and exclude investments from crypto-funds.

Using 31 October 2018 as the cut-off date for this study, an ICO project was considered successful if its closing price (in US\$) on the cut-off date was higher than its listing price. This study recognizes that a large number of cryptographic tokens are built on other platforms, such as ERC20 tokens that are built on the Ethereum network, and thus are closely tied to the latter network's value. The use of USD denomination was to simplify the analysis and to show the decline of value of many of the cryptographic tokens launched by ICO projects.

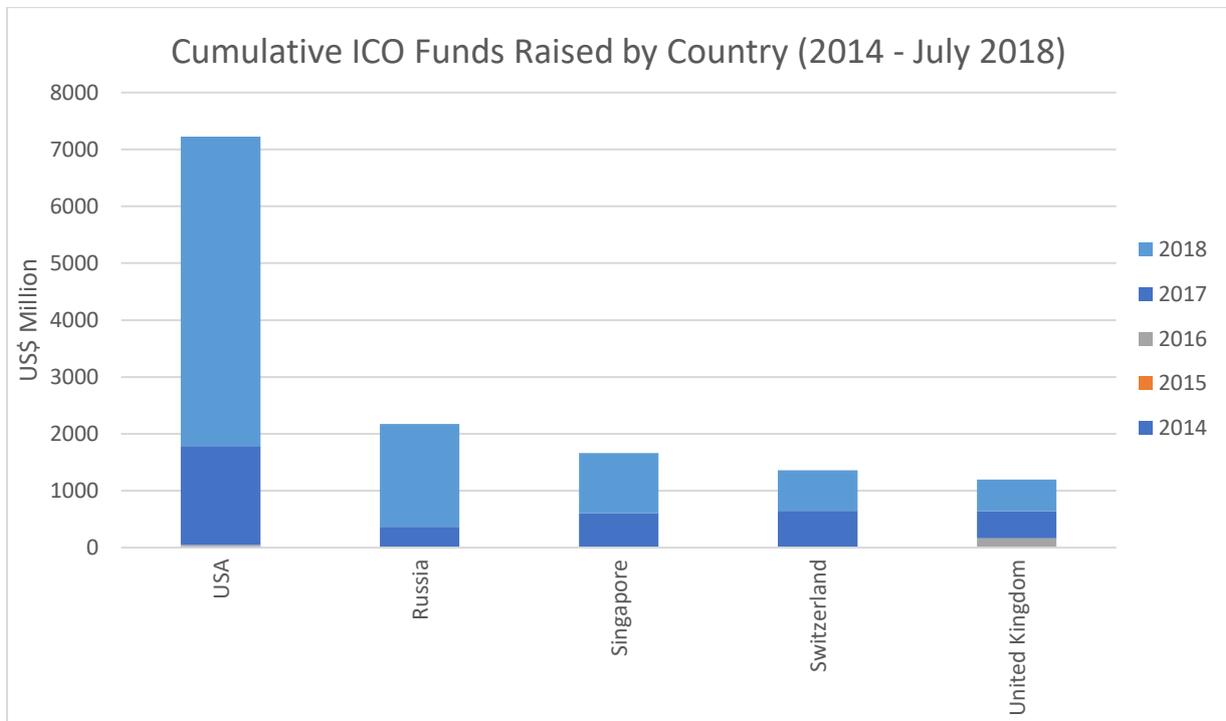
For this study, the terms cryptocurrency & tokens are used interchangeably and is covered by the umbrella term cryptographic tokens.

This study was supplemented by a series of interviews conducted across a number of stakeholders who have advised, participated in, or contributed to the cryptocurrency space.

Initial Coin Offerings (ICOs) Overview and Trends

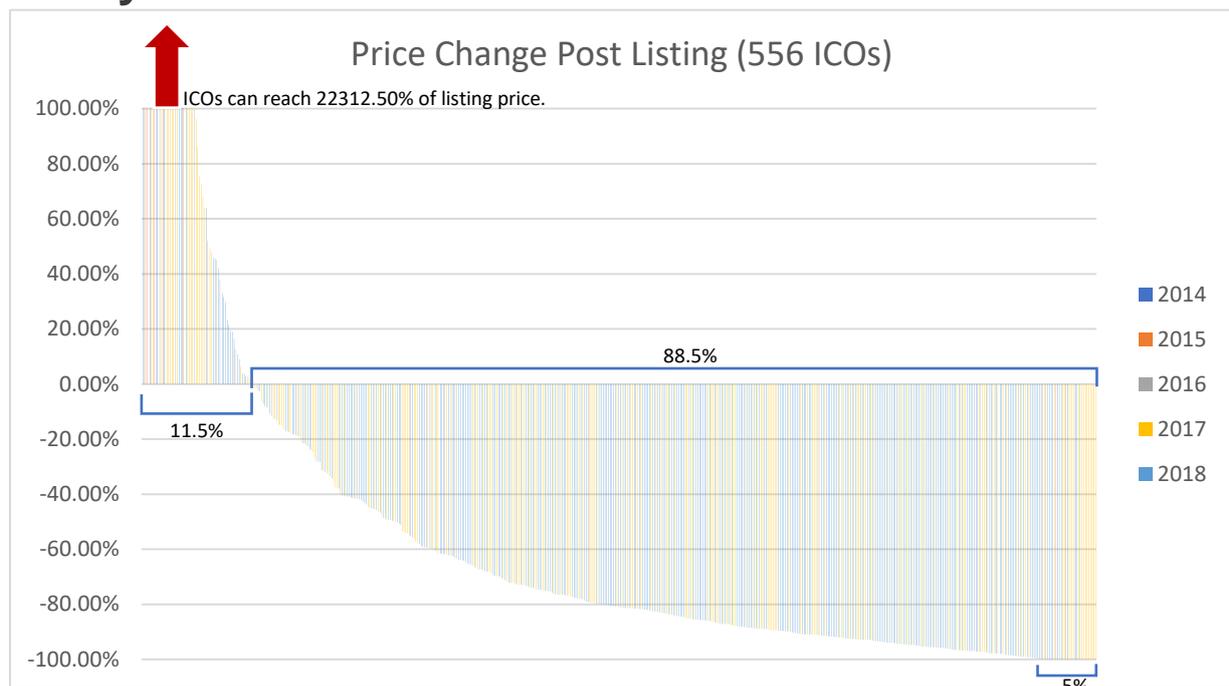


The price of cryptocurrencies escalated in 2017 and peaked in early 2018 before coming down to earth in mid-2018. With the fall in prices, the number of ICOs also dwindled. Cumulative ICO funds raised from 2014 to July 2018 reached approximately US\$ 20 billion. CoinDesk has not updated its ICO database since July 2018.

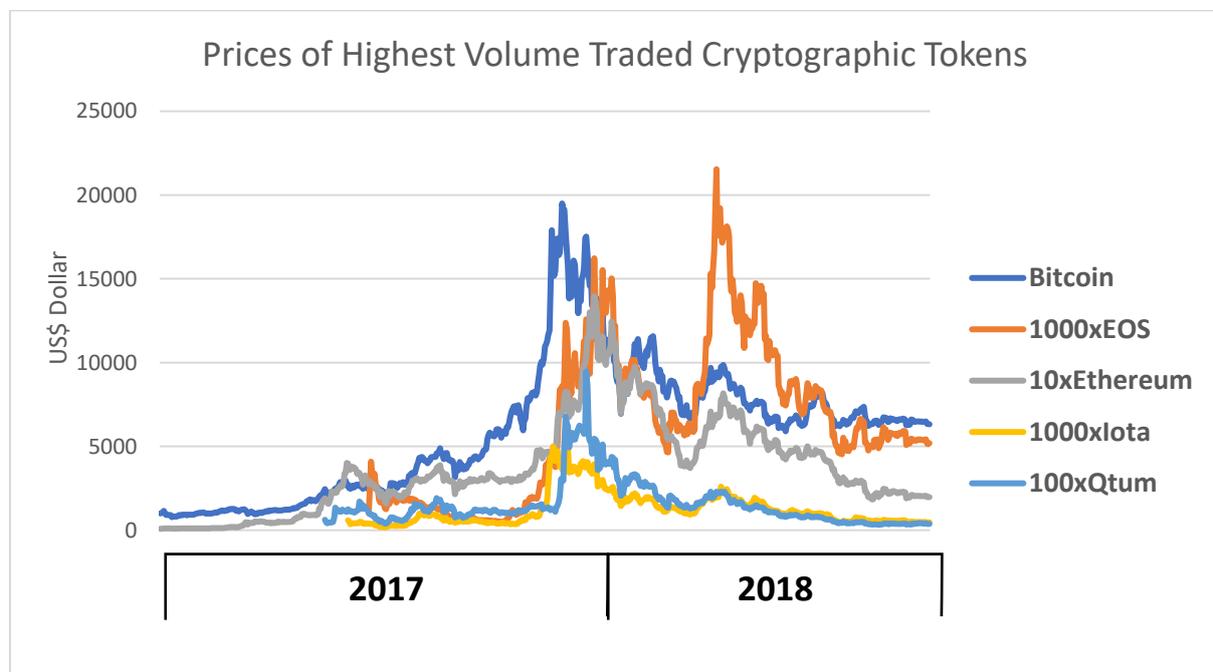


Singapore retained its top three position in cumulative amount of funds raised from ICOs, with majority of funds raised in 2018. It should be noted that although many companies may have raised their ICOs in an ICO-friendly country like Singapore, the operating entity could be resident in another country.

Study Results

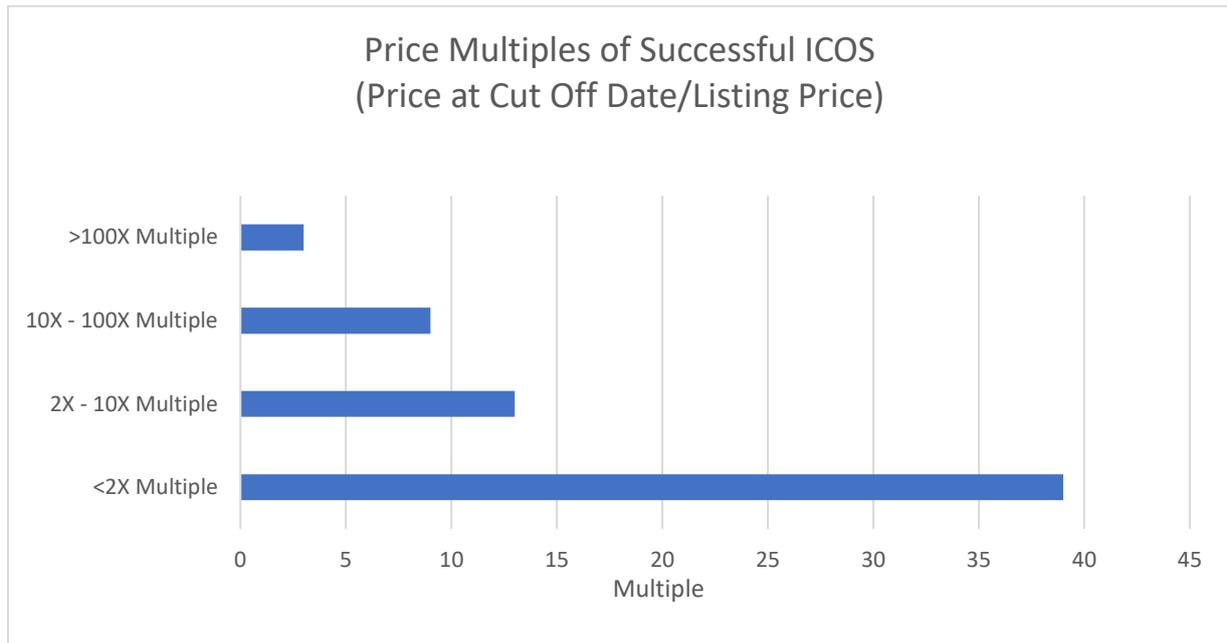


Of the 822 ICOs examined, 266 ICOs were not listed on any of the 170 exchanges tracked by this study. Of the remaining 556 ICOs, 5% had lost all value, 88.5% were below their listing price and only 11.5% were above their listing price on the cut-off date.

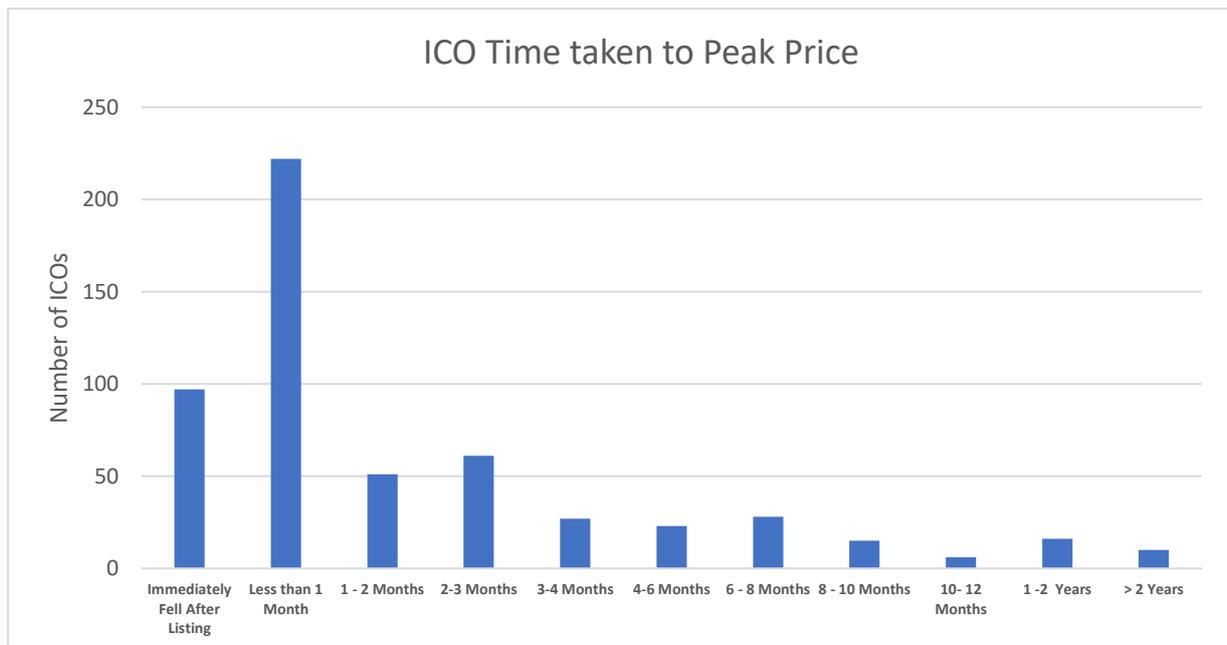


Looking at the highest volume traded cryptographic tokens, it is clear that prices are highly volatile. For the top 4 highest volume traded cryptographic tokens and Bitcoin, the 1 day returns pre and post-peak ranges from + 33.8% to -22.6%.

Price Multiples



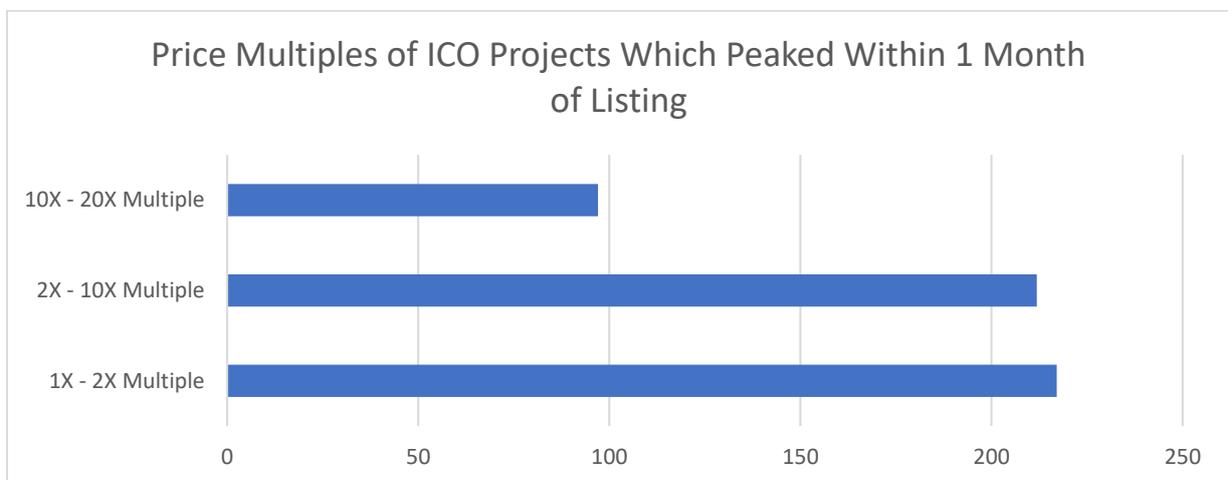
Of the 64 successful ICO projects observed at the cut-off date, 39 (60.9%) achieved modest price multiples of less than 2x. However, 9 (14.1%) achieved excellent price multiples of 10-100x and 3 (4.7%) achieved extraordinary multiples of more than 100x the listing price. Hence, of the 822 ICOs, 64 (7.8%) were considered successful measured at the cut-off date and 12 (1.4%) achieved multiples of > 10x their listing price. The median price multiple for successful ICO projects is 1.91.



Examining the 556 ICOs from their listing to 31st October 2018, it was observed that 97 (17.5%) ICOs never rose above their listing price while 222 (39.9%) ICOs took less than a month to reach their peak price.

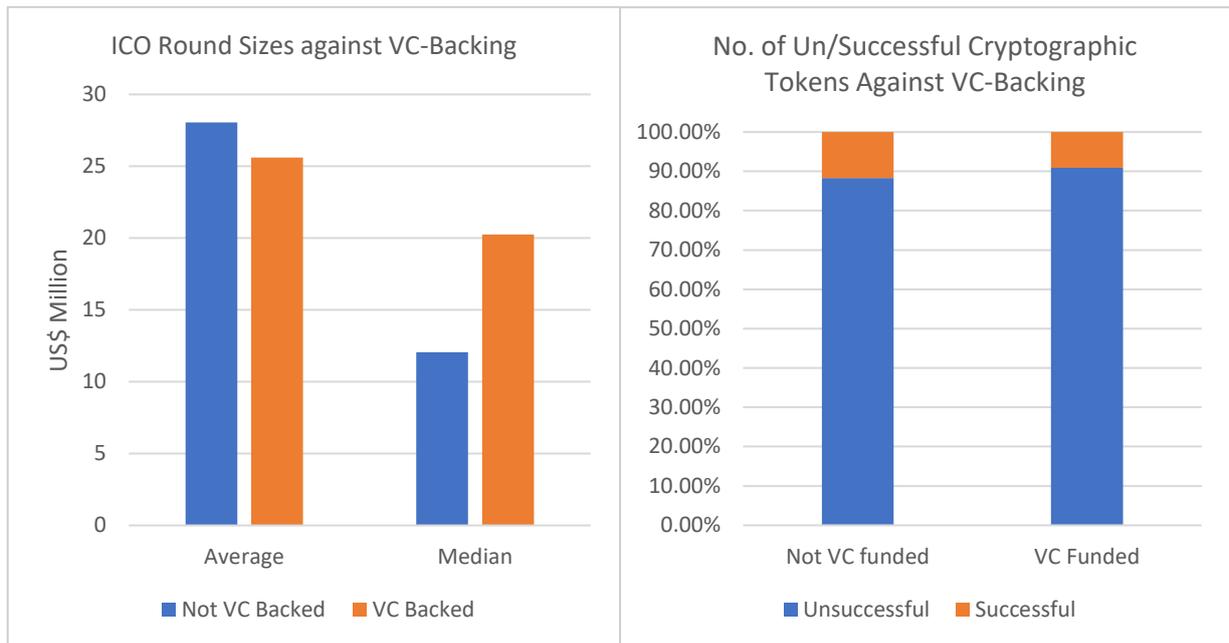


The performance of ICOs varies substantially from project to project as can be seen from the wide disparity of Peak/Listing Price ratios ranging from 1X (prices for 97 ICO projects fell post-listing with no recovery above listing price hence listing price was the highest price recorded) to more than 1000X for 2 listings! However, the median Peak/Listing Price is a more nominal 1.8X.

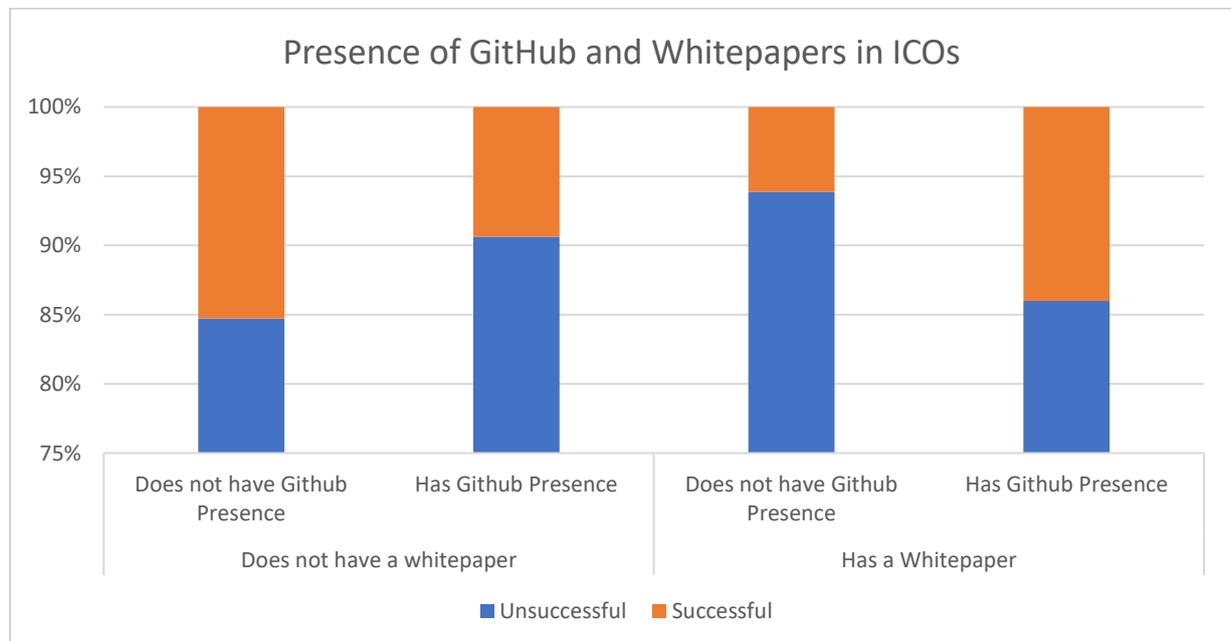


Zooming in on the performance of 222 ICO projects which peaked within 1 month of listing, the lower and upper quartiles are 1.14X and 2.18X respectively with a median of 1.42X.

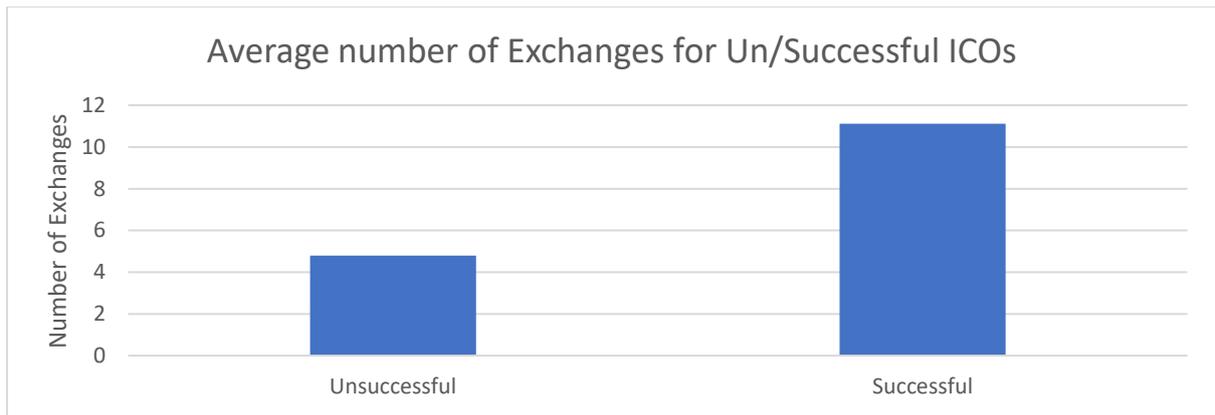
Factors Influencing Success?



Of the 556 ICO projects, only 45 companies had received VC financing prior to their ICO. Based on the limited data, it did not appear that VC-backing affected ICO round size or the success of the ICO. Most traditional VCs were also not able to invest in the ICO round as digital tokens were not within the mandate of most traditional VC funds.



It appears that neither the presence of Whitepapers nor the use of GitHub was a significant indicator of potential success of ICO projects.



There appears to be a correlation between the success of ICOs and the number of exchanges that trades the ICO token although it is uncertain which is the cause or effect as unlike traditional stock exchanges, where IPOs and public listings occur simultaneously, listing of cryptographic tokens occur post ICO. Popular cryptographic tokens listed on larger exchanges can be procured by smaller exchanges to be traded on the smaller exchange. This would inflate the number of exchanges listing the already popular cryptographic token.

Commentary and Next Steps

Blockchain and cryptocurrency has been on the rise of popular discourse and investor interest for the past couple of years. This topic came to widespread public attention when Bitcoin rose to its peak price of almost US\$ 20 thousand per Bitcoin in late 2017, sparking the interest of both public and private investors.

One result of this increased interest was the growth of the ICO market, a practice of raising money through the offering of cryptographic tokens to either public or private investors. This growth has seen US\$ 20 billion invested into hundreds of ICO projects, with astronomical returns for some early investors. This spurred a rush to invest in cryptocurrencies, further encouraging a spurt of ICOs in many parts of the world including Singapore which climbed to third place in cumulative ICO fund raising activity globally.

Attractiveness of ICOs

Singapore has been held out as an ICO-friendly jurisdiction. Unlike several countries which categorically banned the practice, MAS' position is that digital tokens may be regulated by MAS if the digital tokens are capital markets products under the Securities & Futures Act (SFA) which includes any securities, units in a collective investment scheme, derivatives contracts and any spot foreign exchange contracts for purposes of leveraged foreign exchange trading. The bid to bypass regulation led to the prevalence of digital tokens offered as "utility" tokens where these tokens can only be exchanged for products or services by the company but do not constitute a debenture nor a share in the company. Founders and existing shareholders were also driven to issue such "utility" tokens as they represent a means to raise more funds for the business without any dilution of their shareholdings. For token investors, although only 8% of ICOs were considered successful at our cut-off date, 1.1% achieved overwhelming multiples of more than 10x their listing price! In addition, considering that 40% of listed ICOs reached their peak price within a month of their listing, even at a modest median of 1.42 x, the potential IRR could reach a phenomenal 6600%, with the qualification that these investors managed to sell all their tokens during the peak. Hence, the lure of investing in ICOs and the prevalent token investment strategy of "buy and dump". The reality though is that only a fraction of investors manage to achieve this within the limited market window. Nevertheless, the potential of extraordinary gains within a short period still poses a huge draw to those willing to stomach the risk.

Governance

The extraordinary increase in price post listing, often without any commensurate improvement in the business is also widely suspected to be the result of manipulation by market makers, a practice that would have invited scrutiny and suspension on any traditional stock exchange and considered criminal for publicly listed stocks in most jurisdictions.

In addition, with the use of anonymous wallets for cryptocurrency transactions, there are valid concerns of money laundering. MAS has clarified in its memo "A Guide to Digital Token Offerings" dated 30 November 2018 that even digital tokens that are not under the MAS' regulatory purview may nonetheless be subject to legislation for combating money laundering and terrorism financing. MAS has also introduced the Payment Services Bill (PSB) which requires that a person carrying on a business of providing any service of dealing in digital tokens or any service of facilitating the exchange of digital payment tokens must be licensed and will be regulated under the PSB for AML/CFT purposes and will be required to put in place policies, procedures and controls to address risks related to ML/TF.

Apart from legal and regulatory guidelines playing catchup, accounting bodies are also struggling to apply accounting rules to audit and value businesses which have raised financing through ICOs. Issues of ownership and custody of cryptocurrency wallets have raised concerns as highlighted by the recent case of the reported death of the CEO of a cryptocurrency exchange (QuadrigaCX) who was the sole holder of the private key to US\$190m of clients' Bitcoins and other cryptocurrencies held in cold wallets now rendered inaccessible by any party.

Next Steps

The collapse of the ICO market in early 2018 and the increasing regulatory environment are driving the trend towards security tokens. In most cases, security tokens represent a right to an asset such as holdings in a fund, real estate, commodity or cash flow. These tokens come with a variety of financial rights which can include dividends, equity, profit share, voting rights etc. Hence, they would fall within the purview of the government regulatory authorities. With these rights written into and executed through smart contracts bypassing middlemen, it is hoped that these transactions will be faster, lower in cost and more efficient. Security Token Offerings (STOs) which can involve any form of security may well be the next incarnation of ICOs.

Definitions

CoinDesk: CoinDesk is a digital media, events and information services company for the crypto asset and blockchain community. CoinDesk also hosts an ICO database that this study was based on.

CoinMarketCap: CoinMarketCap reports on the trading activities of thousands of markets but does not directly sell any cryptocurrency. Data is collected, recorded, and reported on the site in UTC time. Historical data such as Close Price, Volume, and Market Cap are recorded on the site for each cryptocurrency that CoinMarketCap tracks.

Cryptographic token / Cryptocurrencies: In this report, cryptographic tokens and cryptocurrencies are used interchangeably. They are generic terms that refer to all cryptocurrencies and tokens, such as Bitcoin, Ethereum, or Augur. Utility tokens are used to access a company's product or service while security tokens derive their value from a representation of an external asset, like equity in a company, a piece of artwork, or even real estate.

Cut-off date: For the purpose of this report, prices of tokens on CoinMarketCap was tracked up to 31 October 2018 which was used as the cut-off date.

GitHub: GitHub is a web-based hosting service for version control using Git. It is mostly used for computer code and provides access control and collaborative features for coding projects. ICOs tend to have GitHub repositories to publish their code for transparency.

Initial Coin Offering (ICO): A method of raising funds from public and private investors. Analogous to an initial public offering (IPO), an ICO would allow a firm to issue a cryptographic token to interested investors for either other cryptocurrencies or fiat. ICOs often have a soft and hard cap. If the soft cap is not reached, the firm is obligated to return the investors' monies and the hard cap dictates the maximum amount the ICO is able to receive. The rights of holders of various cryptographic tokens differ and are often described in whitepapers issued before the ICOs.

Listing Price: The price which was first recorded by CoinMarketCap for the purpose of this study.

Peak Prices/All-Time-High: The highest price recorded for the cryptographic token post-listing.

Success: Using 31 October 2018 as the cut-off date for this study, an ICO was considered successful if its closing price (in USD) on the cut-off date was higher than its listing price.

Whitepaper: A document issued by most blockchain projects before their ICO describing the project, how the funds raised will be used, the time period of the ICO project and the features/entitlements/use of the tokens.

Exchange: A secondary exchange in which owners of cryptographic tokens can sell or buy their cryptocurrencies/tokens.

Blockchain: The record-keeping technology behind the workings of Bitcoin. Most commonly described as a "distributed, decentralized, public ledger" but the blockchain can be used in the private or public domain.

Security Token Offering (STO): Similar to an ICO but the tokens offered are considered securities. Hence, STOs are subject to regulatory authorities appropriate to the markets they are traded in such as the Monetary Authority of Singapore.

Data Sources

The ICO market is unregulated and often have no standards for definitions, reporting, and whitepapers among other factors. These findings are preliminary and based on sources available on the Internet and on personal interviews on the condition of anonymity. We have based our findings on the below sources:

Bloomberg: <https://www.bloomberg.com/features/2018-bitcoin-atm-money-laundering/>

CoinDesk

CoinMarketCap

Crunchbase

Ernst & Young: Initial Coin Offerings (ICO) The Class of 2017 – one year later

Etherscan

Funderbeam

GitHub

Icobench and

Interviews with stakeholders who have advised, participated in, or contributed to the cryptocurrency space.

Acknowledgements

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The authors Doris Yee, Director, and Dominic Hosea Tan, Research and Communications Executive would like to extend our sincere thanks to the various interviewees for their candour and for generously sharing their time and expertise.

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