Date: 8 June 2018

Initial Coin Offering

Initial Coin Offering ("**ICO**") is all the rage now. Fad or not, the meteoric rise of ICO is attributed to its ease of raising start-up capital while minimizing the tedious regulatory procedures – at least for now. Investors partake in this new wave of capital funding for reasons ranging from anticipation of capital appreciation to their belief in the potential of the underlying blockchain technology. However, where there are opportunities, there are also risks. The popularity of ICO has made itself a target to hacks and frauds, which inevitably drew the eyes of regulators. However, as ICO enters the legal field with investor protection in mind, different jurisdictions hold different sets of rules. The purpose of this report sets out to highlight this difference, alongside Singapore's ICO landscape, ICO's benefits as well as its risks.

Eing Kar Mei, CFA
eingkm@saccapital.com.sg

Initial Coin Offering

Date: 8 June 2018

What is an Initial Coin Offering?

ICO is a form of crowd-funding where a company offers new digital tokens in exchange for cryptocurrencies such as Bitcoin or Ether, and in some cases, fiat currency. There are essentially three types of tokens, namely **i) cryptocurrencies ii) utility tokens and iii) security tokens.** Utility tokens represent the future access to a company's product or service. For instance, Filecoin's utility tokens enable users to access its decentralized cloud storage platform. This is in stark comparison to Dropbox's centralized cloud storage service where users pay a recurring subscription fee. Security tokens, on the other hand, provide the holder with ownership rights over the company. Just like a stock, the owner buys with the hope of either a dividend payout or in anticipation of a capital appreciation, or both. However, since it is treated as a security, it will be subjected to the jurisdiction's regulations.

In the U.S, the litmus test as to whether a token is considered a security is via the Securities and Exchange Commission's ("**SEC**") Howey test[1]. In Singapore, the Monetary Authority of Singapore ("**MAS**") adheres to its Securities and Futures Act ("**SFA**") which will be further discussed in this report. As such, the regulation of ICOs can vary widely between countries.

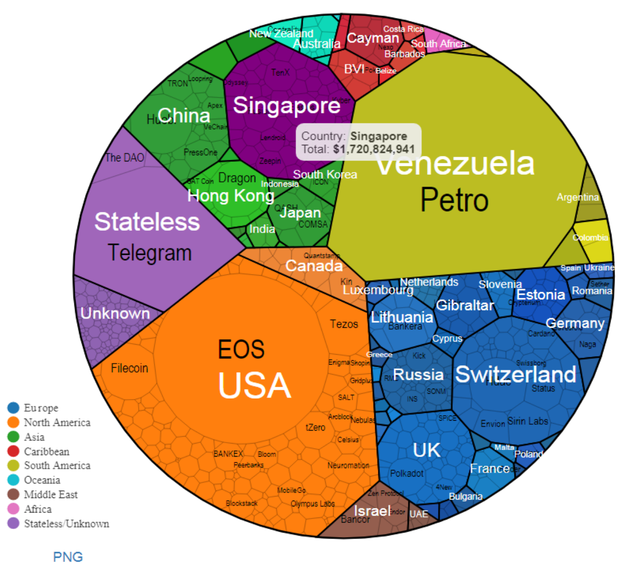
In Asia, Singapore, Hong Kong and Japan are jurisdictions which encourage ICOs while China still puts a blanket ban on them. Over in the western hemisphere, the United States, United Kingdom and Switzerland are the favoured destinations for ICOs, albeit with some of them tightening regulations on ICOs.

[1] The four pre-requisites to determining whether a token constitutes a security:
1) there is an investment of money,
2) an expectation of profits,
3) the investment of money is in a common enterprise, and
4) any profit comes from the efforts of a promoter or third party

Singapore's ICO Landscape

Singapore is on route to becoming the FinTech hub of the Asia-Pacific region. Today, Singapore is the 3rd largest ICO market after the United States and Switzerland, in a report published by Funderbeam. According to ICO Bench, Singapore is ranked 4th globally by the total number of ICOs, with 250 ICOs as of late May 2018. Between January 2014 and March 2018, the ICOs in Singapore have raised an aggregate amount of US$1.72 billion as reported by Elementus. In comparison, only US$509 million was raised in Hong Kong.

Figure 1: Fundraising volume by country and region, Jan 2014 to March 2018



Source: Elementus

What makes Singapore an ICO haven?

The possible reasons of why Singapore emerged as an attractive hub for ICOs could be attributed to: i) the reliefs granted to start-ups and businesses and ii) the early governmental support for FinTech. The tax-friendly regulations as well as the grants offered by SPRING Singapore are reasons for the former.

Early governmental support: Back in 2015, the MAS started the *Financial Sector Technology & Innovation* ("**FSTI**") scheme, which is a SGD$225 million initiative to "help financial firms set up innovation labs and to fund infrastructure to deliver financial technology ("**Fintech**") services". One of the infrastructures built using the fund was the 80RR FinTech Hub, which was dedicated to housing both international and local Fintech start-ups and companies.

Another aspect of the government support stems from MAS' clarity in addressing the public concern. The detailed guidelines about ICOs last year was seen as a positive development, providing a form of regulatory clarity to the industry. Moreover, MAS' public consultation frameworks regarding policy changes provide some predictability to start-ups and investors – minimising the risk of a sudden change in regulations.
Singapore's progressive approach towards digital currencies (as opposed to China's and South Korea's ban of ICOs) has made Singapore "more attractive to founders of blockchain-based companies than Switzerland, the US, Gibraltar, and the Cayman Islands." Said Nick Davies, a lawyer with Morrison & Foerster (Singapore) in an interview with Straits Times.

MAS takes on a favourable view behind the underlying blockchain technology. In support of the underlying distributed ledger technology ("**DLT**") behind cryptocurrencies, the MAS has also created a tokenized version of the Singapore dollar which is based on the Ethereum blockchain. Named "Project Ubin", the collaborative project aims to aid in the clearing and settlement of payments and securities within a consortium of financial institutions. In all, these initiatives show that Singapore takes a favourable view on the future of cryptocurrencies and this is a welcoming sign for ICOs here.

Past ICOs in Singapore

Back in June 2017, Singapore-based TenX raised US$80 million, with US$34 million raised within 7 minutes. TenX seeks to create an efficient solution surrounding the liquidity problems of the cryptocurrencies, allowing users to spend them in the real world. As at 1 March 2018, the price of its Pay Token has increased by 115.91% ever since July 2017, and currently has a 24-hour trading volume of US$ 2.17 million.

In January 2018, decentralized database provider Bluzelle raised US$19.5 million within 3 days. This Singapore-based start-up is a pioneer in data storage and management systems for the decentralized internet. With advisors from the original creator of Ripple, like Ryan Fugger and Matt Chwierut from Smith+Crown, a leading blockchain analyst firm, its management is unquestionable. What was unique about its ICO was that Bluzelle veered away from the "Fear of Missing Out" ("FOMO") gimmick and presented only 24 hours for the token sale. Since its ICO, the price of its BLZ tokens has increased to US$0.302, up 151.64% from its issue price, achieving a market capitalization of US$49 million.

Upcoming ICOs in Singapore

Headquartered in Singapore, Lattice80, the world's largest FinTech Hub, has conducted its ICO and has plans to launch Crypto Exchange for institutional investors. According to Joe Seunghyun Cho, the Founding CEO of LATTICE80 and Chairman of Marvelstone Group, they aim to "build a system where HNWIs and institutions can participate under properly regulated systems and compliance mechanisms" and to "institutionalise this emerging asset class to offer a new alpha opportunity".

As reported by Business Times, Catalist-listed Spackman Entertainment Group also has tied-up with South Korean cryptocurrency developer Project Talent to launch its own Korean entertainment utility tokens known as "K coins" through an ICO. The K Coins will grant token holders future access to products and services offered by Spackman, such as merchandise, premium content and movie-related events.

Singapore's Regulatory Framework

While the Managing Director of MAS, Ravi Menon initially took a stand not to regulate the cryptocurrency market last year, it is reassessing if additional regulations are necessary for investor protection. Most recently, the MAS stopped an ICO in its tracks as it broke rules governing securities and futures contracts, forcing the issuer to return all funds received from Singapore-based investors. Recently, the MAS clarified in its "*Guide to Digital Token Offerings*" that if a token is structured in the form of securities, it will be regulated under its SFA and Financial Advisers Act ("**FAA**"). Hence, ICOs will be regulated if their digital tokens constitute as *capital markets products*[2] under the SFA. Notwithstanding this, the MAS imposes anti-money laundering ("AML") requirements on intermediaries who provide virtual currency services.

Anti-money laundering ("**AML**")/Combating the financing of terrorism ("**CFT**") remains MAS' priority in dealing with ICOs. For instance, the Commercial Affairs Department ("**CAD**"), an enforcement agency, is in place to keep a lookout for illegal activities related to cryptocurrency trading. It is also required by law that the public report any suspicious transactions to the Suspicious Transaction Reporting Office ("**STRO**") during the course of their trade, profession, business or employment.

The next priority involves investor protection. The CAD and MAS have issued a consumer advisory surrounding investment schemes which includes digital tokens such as ICOs. Companies offering such investment related products are mandated by law to disclose information. Consumers are strongly encouraged to only seek such investment products from MAS-regulated entities as found on the Financial Institutions Directory.

[2] Under section 2(1) of the SFA, "capital market products" means any securities, futures contracts, contracts or arrangements for the purposes of foreign exchange trading, contracts or arrangements for the purposes of leveraged foreign exchange trading, and such other products as MAS may prescribe as capital markets products.

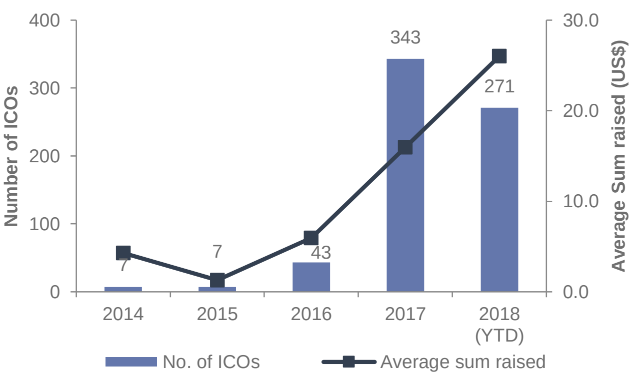
Singapore's First ICO Advisory Centre

As many small and medium-sized enterprises ("**SMEs**") are grappling to understand how to tap onto the ICO as a fund-raising platform, Singapore start-up PLMP-Fintech is set up to address these concerns. As Singapore's first ICO advisory centre, it will be providing consultations and solutions such as proposing collective crowd funding for start-ups. To combat some of the risks stated above, PLMP also offers security and encryption for firms' ICO and individuals alike. With the establishment of an advisory centre like PLMP, it is seen as a tailwind for the ICO market in Singapore.

International Landscape

Popularity of ICOs continues to be on the rise. 2017 had been a record year for ICOs as it exploded to 343, up from just 7 in 2014. Since the start of the year till late May 2018, the number of ICOs has reached 271, with an average of US$26.0 raised. Reasons for this sprouting growth include the ease of fund-raising as it skips the filling process as in an Initial Public Offering ("**IPO**"), many jumping on to the disruptive blockchain technology bandwagon and for investors, the fear of missing out ("**FOMO**") mentality.

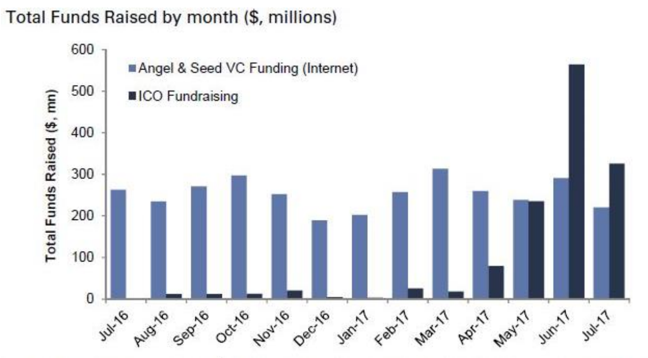
Figure 2: Number of ICOs and Average ICO sum raised



Source: CoinDesk

From **Figure 2**, the average ICO funding has increased from US$15.9 million in 2017 to US$26.0 million in 2018 (as at May 2018). In comparison to seed funding from Venture Capitalists ("**VCs**") which raised US$300 million last June, ICOs has raised over US$550 million, surpassing the seed funding for the first time (Source: Goldman Sachs). However, this does not suggest that ICOs will eventually replace VCs, simply for a few reasons. The first reason lies in the fact that the ICO is not relevant for all companies. As Bobby Ong, Co-founder of CoinGecko said, "If this idea can work without blockchain, why is it doing an ICO?" – highlighting that ICOs are more relevant for blockchain-based companies. The other reason pertains to partnership which VCs provide. For instance, TenX, a Singapore-based crypto-wallet start-up combined ICOs and VCs where it capitalised on its token sales to raise initial funding, followed by a Series A for the strategic partnerships.

Figure 3: Comparison between VC Funding and ICO Fundraising



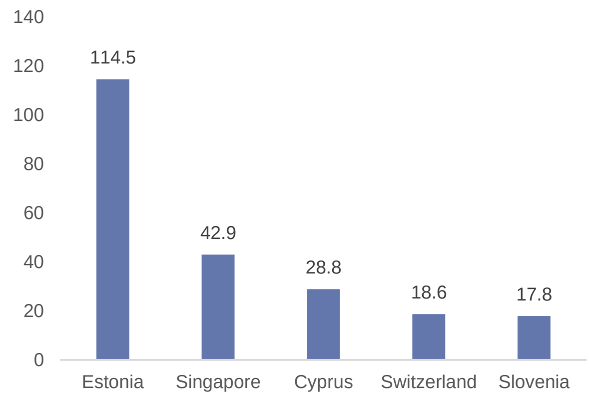
Source: Goldman Sachs

By region, Funderbeam reported that North America, Europe and Asia raised US$1.2 billion, US$637 million and US$338 million respectively in 2017. Of which, the share of fund-raising via ICO in Europe is almost twice that of North America's, reaching 3.83%. According to Elementus, 60% of the funds from Europe were attributable to Switzerland, the United Kingdom and Russia.

Estonia – World's most advanced digital society

Termed "the most advanced digital society in the world" by Wired, Estonia is aiming to become a global ICO hub by launching its own cryptocurrency. As an extension to its e-Residency program which allows foreigners accessed to some of the benefits enjoyed by Estonians, Estonia is planning its own ICO "to create a type of public-private sovereign wealth fund that would invest in Estonian digital infrastructure projects and technology start-ups." (Source: CoinDesk). Estonia also has 54.2 ICOs per million people, the highest ICO per capita, followed by Singapore as shown below. A report by Funderbeam also revealed that Estonia has the highest percentage of overall start-up funding raised by ICOs, at 28%. In comparison, only 0.45% of total start-up funding was funded by ICOs in the United States.

Figure 4: Top countries by the no. of ICOs per million people



Source: ICO Bench

Switzerland – The Crypto Valley

According to Forbes, Swiss-based ICOs have raised around US$600 million which makes up 11% of the global ICO market in 2017. Four out of the six largest ICOs were raised in Switzerland. They were Tezos, Bancor, Status, and The DAO. Dubbed the "Crypto Valley", the small canton of Zug attracts local and international cryptocurrency companies due to its low tax structure (Source: Reuters).

Complementing its ICO guidelines released in September 2017, the Swiss Financial Market Supervisory Authority ("**FINMA**") recently published a new ICO guideline which primarily focuses on the function and transferability of token as well as anti-money laundering and securities regulation. FINMA CEO, Mark Branson commented that this "balanced approach to handling ICO projects and enquiries allows legitimate innovators to navigate the regulatory landscape and so launch their projects in a way consistent with our laws protecting investors and the integrity of the financial system." According to FINMA, tokens which are used to access an existing platform or only for payments are not considered securities. If however, the ICO issuer is found to be issuing security tokens, they are only subjected to a one-time capital duty of 1%. Transactions of security tokens require securities transfer tax duties of 0.15% and 0.30% for domestic and non-domestic instruments (where a Swiss dealer is involved). Any distribution of profits on equity tokens or payments on debt tokens is subject to Swiss withholding tax at a rate of 35%.

United States

The Securities and Exchange Commission ("**SEC**") maintains its position that whether or not ICO tokens are deemed securities is not limited to the Howey Test, but is ultimately subjected to its approval. However, as SEC Chief Jay Clayton has expressed, "I believe every ICO I've seen is a security". While the SEC recognizes the potential of ICOs for market professionals, those setting up ICOs are subjected to strict disclosure requirements with the SEC. For this reason, many ICO issuers are foreclosing United States residents from participating in their ICOs – to avoid registering their tokens as securities with the SEC.

According to the Wall Street Journal, the SEC is currently subpoenaing dozens of ICOs, and has requested for "every bit of communication around the token launch". This latest move highlights the fact that the SEC is beginning to clamp down and enforce its regulations on the ICO issuers.

China and South Korea

Since September 2017, China has banned ICOs, deeming it to be "illegal and disruptive to economic and financial stability. As compared to Qubec and the Isle of Man which are pro-ICOs, China cannot afford to be less risk-averse due to its large market size. It was reported by Beijing Internet Finance Association that in the first seven months of 2017, 65 ICOs raised almost $400 million. Given this wildfire spread, CoinDesk comments that a case-by-case evaluation would have been impractical. That said, China is not averse to blockchain development as its central bank has pushed for a five-year blockchain plan and has launched its first blockchain platform operating under the central bank.

According to South Korea's Financial Services Commission ("**FSC**") vice-chairman Kim Yong-Beom, FSC may lift its blanket ban on ICOs implemented last September 2017. He mentioned that "it is right for professional investors to do an ICO, not regular citizens who are not informed of its technology and complicity." Hence, this suggests that only professional investors are allowed to partake in ICOs, excluding retail investors – to protect investors. As of March 2018, a group of lawmakers are already drafting a bill to legalize ICOs in the country.

According to Bobby Lee, CEO of BTCC, he believes that the Chinese government will eventually lift the ban of ICOs and crypto-trading. For now, it is assumed that the China is setting the regulations in place since its authorities recognise that to be the market leader in global markets, there is a need to modernize the financial system, reported CoinDesk.

Risks of ICO

While ICOs seem to be an easier way to raise capital – **it lacks investor protection.** According to Nick Davies, a lawyer with Morrison & Foerster (Singapore), since ICOs are often used by start-ups, they lack the track record and corporate governance. As opposed to a prospectus during an IPO, the "white papers" in ICOs are not subjected to regulation (yet) hence they lack the clarity and enforcement rights, especially if the ICO promoter is based overseas. Once investors operate in ICOs which operate online or outside Singapore, it is outside of the MAS' jurisdiction – any recovery of invested monies are thus subjected to foreign laws and regulations instead.

Market risks (volatility): The prices of tokens are extremely volatile as they are pegged to the price of cryptocurrencies such as the Bitcoin. For instance, Bitcoin's 30-day volatility estimate was 5.64%. In comparison, major currencies average around 0.5% to 1.0%. In essence, the volatile nature of tokens makes ICO no different to just another speculative investment.

Inflated expectations: As with any initial boom, the ICO market has been growing at wildfire rates – from US$30 million in 2014 to over US$5 billion in 2017. This is a case for concern because despite the tumble in cryptocurrency's market capitalization by about US$280 billion in January 2018, the ICO market continued to grow. The total ICO funds raised for the first 3 months of 2018 has surpassed the total ICO raised in 2017, according to CoinDesk.

Another risk entails the susceptibility of being hacked. For instance, programming flaws such as the one in Decentralised Autonomous Organisation[3] ("DAO") has led to the theft of US$55 million in 2016. Although the funds were later recovered via a "hard fork", investors' sentiments were already eroded by then. In another case which occurred in 2017, US$7 million was lost in CoinDash's ICO as a hacker redirected the funds to a fraudulent address. According to Ernst & Young, US$400 million was stolen from ICOs between 2015 and 2017 – 10% of what was raised during that period.

Amongst the risks stated above, MoneySENSE has also written on other potential risks which include:

- Risk relating to insufficient secondary market liquidity
- Risk relating to highly speculative investments
- Risks of money laundering and terrorist financing
- Risks relating to sellers without a proven track record

[3] Its goal is to codify the rules and decision-making apparatus of an organization, eliminating the need for documents and people in governing, creating a structure with decentralized control. After the ICO, proposals can be made to the DAO on how to spend the money.

Benefits of ICO

Fund-raising mechanism: It is easy to raise funds via ICOs. While this may seem attractive especially since Telegram has recently raised US$850 million from its ICO - the largest ICO to date, it should be noted that ICOs are not relevant to all companies. Rightfully, before a company sets out an ICO, it should ask itself **whether a block-chain is necessary for its product to work effectively.** Actual value must be derived from the underlying block-chain technology in ICOs for it to work effectively, as detailed by William Mougayar, author of the Business Blockchain.

Synergy with VCs: Capitalising on the ICO for the ease of raising funds and subsequently seeking for VCs for strategic partnerships has helped Singapore-based TenX become one of the more successful block-chain start-ups.

Liquidity: For investors, the popular tokens grant them **liquidity** on the cryptocurrency exchanges such as Binance. As Techcrunch reported, the more popular tokens could exceed US$100 million in 24-hour volume. However, as cryptocurrencies and tokens are traded 24/7 as compared to exchanges which operates on a fixed period each day, the liquidity of lesser known tokens may be low.

While ICOs are subjected to market risks, regulatory uncertainties and security issues, **ICOs are likely to stay – at least in the foreseeable future.** With the tightening regulations today, companies are erring on the side of caution, trying to figure out whether their tokens would constitute as securities. To avoid unwanted attention from regulators, ICO advisories would begin to blossom as they receive more of such clients in dilemma.

Even with China's blanket ban at the moment, the ICO market is still growing. Yang Dong, Director of the Centre for Financial Technology has also said that "Good ICO projects are allowed to develop in a legal and risk-controlled environment rather than simply adopting a one-size-fits-all approach." With this in mind, the Chinese government is likely to arrive with a regulatory sandbox environment similar to the MAS and eventually lift the ban sometime in the future. Ultimately, the potential of ICO is immerse, and to permanently do away with this nascent idea would be an unwise decision.

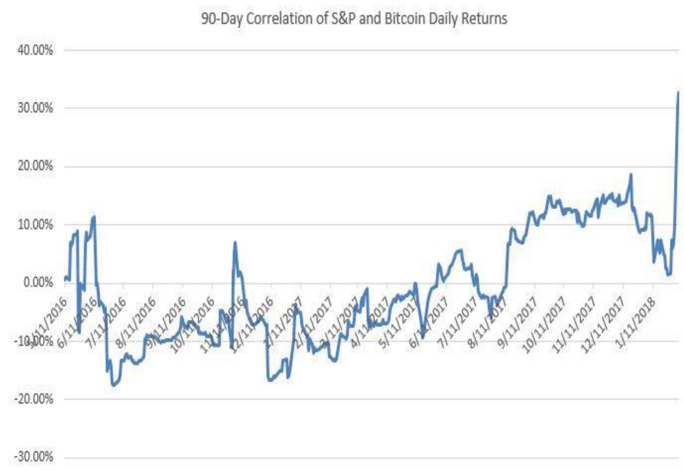
Conclusion

The **block chain technology is attracting the very thing which it sets out to avoid – having a central authority.** On the other hand, issuers also want to capitalise on the lower transaction costs (as opposed to IPOs), together with the ease of online marketing via ICOs. Ultimately, before the potential of ICOs can be realised, its fate remains at the hands of the respective regulatory authorities. Despite the clarity, there will always be uncertainty until the rules are set in stone.

As for the potential of ICOs, the **disruptive nature behind the decentralized network would force modern internet businesses to rethink their business model.** Take for instance, FileCoin which presents a concept of distributed data storage. As opposed to having a central cloud storage provider such as Dropbox or Google, data is instead stored across the users' network. In short, users receive tokens for offering their storage space and arguably the security risks are lower. This is a fine example of maximizing the positive network effect of the block chain.

Finally, just like the stock market, an imminent correction for ICO market is coming. Amidst the [rising interest rate](), the equity market is expected for a decline. As JPMorgan Chase & Co. executive Daniel Pinto warned, [equity markets could fall as much as 40 percent in the next two to three years](). So what does this have to do with the ICO market? According to [DataTrek Research](), it was found that there was an increasing correlation between cryptocurrencies and the stock market - On a 90-day basis, the correlation between the daily percent returns of the cryptocurrency and the S&P 500 reached an all-time high of 33%.

Figure 5: Correlation of S&P and Bitcoins Daily Returns



Source: DataTrek Research

The increased correlation between the two could mean that the headwind on equities will indefinitely affect the currently heated ICO market. With the price of tokens being pegged to established digital currencies like Bitcoin, the gloomy equity market outlook is expected to claw down on investor sentiment, and due to the increased correlation between the two could cause a correction to the ICO market.

This in itself is a necessary evil. At the going rate, the ICO market is packed with high quantity and low quality token projects. With the correction, those which survive are likely to be the "true" utility tokens, shifting from [mere speculation to utility]().

DISCLAIMERS AND DISCLOSURES

This report has been prepared and distributed by SAC Advisors Private Limited ("**SAC Advisors**") which is a holder of a capital markets services licence and an exempt financial adviser in Singapore. SAC Advisors is a wholly-owned subsidiary of SAC Capital Private Limited ("**SAC Capital**") which is also a capital markets services licensee.

This report has been prepared for the purpose of general circulation. We have not had regard to the specific investment objectives, financial situation, tax position or unique needs and constraints of any individual person or any specific group of persons and does not purport to be comprehensive or contain all necessary information which a prospective investor may require in arriving at an investment decision. Any prospective purchaser should make his own investigation of the securities and all information provided. Advice should be sought from a financial adviser regarding suitability, taking into account the specific investment objectives, financial situation or particular needs of the person in receipt of the recommendation, before a commitment to purchase is entered into.

This report does not constitute or form part of any offer or solicitation of any offer to buy or sell any securities.

This report is confidential and the information in this report shall not be copied or reproduced in part or in whole, and save for the recipient of this report, shall not be disclosed to any other person without the prior written consent of SAC Advisors. The distribution of this report outside the jurisdiction of Singapore is also strictly prohibited.

Whereas SAC Advisors has not independently verified all the information set out in this report, all reasonable care and effort has been taken to ensure that the facts stated herein are accurate, this report may contain certain forward looking statements and forward looking financial information which are based on certain assumptions and involve known and unknown risks, uncertainties and other factors which may cause the actual results or performance of the subject companies to be materially different from those expressed herein. Predictions, projections or forecasts of the economy or market trends are not indicative of the future performance of the subject companies. The inclusion of such statements and information should not be regarded as a representation, warranty or prediction with respect to the accuracy of the underlying assumptions of the subject company or that the forecast results will or are likely to be achieved.

Our opinion and facts set out in this report are based on the market, economic, industry and other applicable conditions prevailing as at the date of the preparation of this report. Such conditions may change significantly over a relatively short period of time and we assume no responsibility to update, revise or reaffirm our opinion in light of any development subsequent to the publication of this report, that may or may not have affected our opinion contained herein.

This report contains forward-looking statement which are based on assumptions or forecasts and are subject to uncertainties which may result in the actual result or performance to be materially different from the opinion or facts set out herein. Caution should be exercised in placing undue reliance on such statements. such assumptions or forecasts may change over a relatively short period of time and we assume no responsibility to update, revise or reaffirm our opinion in light of any development subsequent to the publication of this report.

No representation or warranty, expressed or implied, is made and no responsibility is accepted by the companies, SAC Capital, SAC Advisors or any of their affiliates, advisers or representatives as to the fairness, accuracy, completeness or adequacy of such information or facts, in this report or any other written or oral information made available to any interested party or its advisers and any liability therefore is hereby expressly disclaimed.

SAC Advisors, SAC Capital and their associates, directors, and/or employees may have positions in the securities or securities of the companies covered in the report and may also perform or seek to perform other corporate finance related services for the companies whose securities are covered in the report. SAC Advisors and its related companies may from time to time perform advisory services, or solicit such advisory services from the entities mentioned in this report ("**Other Services**"). This report is therefore classified as a non-independent report. However, the research professionals involved in the preparation of this report have not and will not participate in the solicitation of such business.

ANALYST CERTIFICATION/REGULATION AC

As noted above, research analyst(s) of SAC Advisors who produced this report hereby certify that

(i) The views expressed in this report accurately reflect his/her personal views about the subject/subject corporation(s);

(ii) The report was produced independently by him/her;

(iii) He/she does not on behalf of SAC Advisors or SAC Capital or any other person carry out Other Services involving any of the subject/subject corporation(s) or securities referred to in this report; and

(iv) He/she has not received and will not receive any compensation directly or indirectly related to the recommendations or views expressed in this report or to any sales, trading, dealing or corporate finance advisory services or transaction in respect of the securities in this report. He/she has not and will not receive any compensation directly or indirectly linked to the performance of the securities of the subject corporation(s) from the time of the publication of this report either.