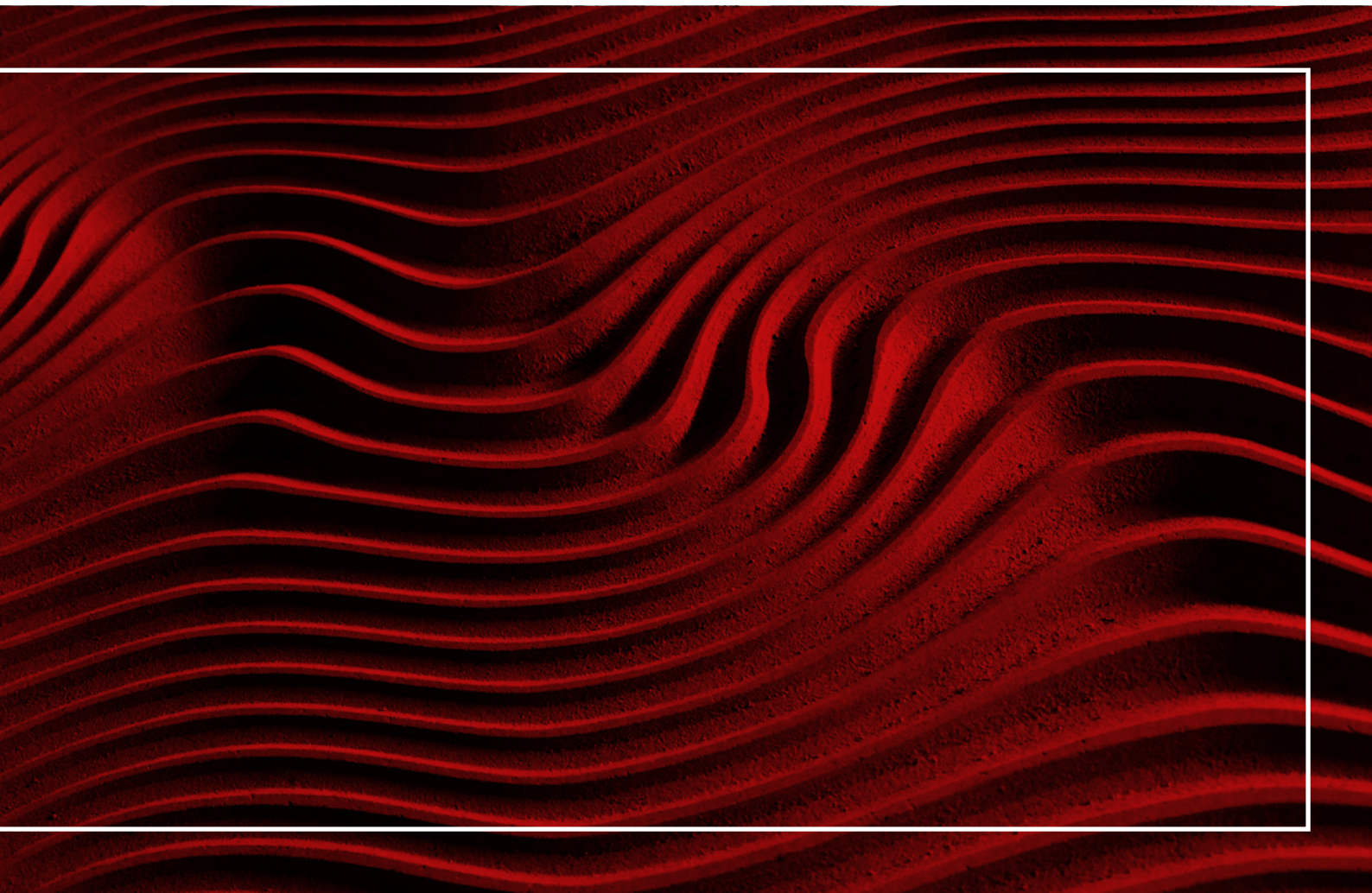# CRYPTOCURRENCY SERIES:

INITIAL COIN OFFERING: AN INVESTOR'S GUIDE – PART II

JULY 2018

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THE FUTURE. NOW.

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1. ICO ASSESSMENT CHEAT SHEET

	IMPORTANCE	BEST PRACTICE
BUSINESS CASE/ PROBLEM	CRITICAL	**Is the ICO project solving a problem for someone? Is it a unique solution being proposed?** This is the most important question you can ask yourself when assessing whether to invest in an ICO. The ICO project **MUST** be solving a specific business problem and it **MUST** be solving it for a recognized group of stakeholders. It also **SHOULD BE** solving the problem in a unique way. If the problem is already being solved by someone else, then what is the incentive to enter into the market?
QUALITY OF TEAM	VERY HIGH	The quality of team is very important. Look for detailed bios which link experience to the requirements of the project. Look for people who have had success with past projects. Validate the bios by googling names and checking LinkedIn profiles. Look for teams that have varied experience which includes specialist blockchain developers, academics, physicists, Post Doctorates (PhDs), cryptologists, mathematicians, career investors, trusted advisors, proven entrepreneurs and experienced project managers. Also look out for fake or disingenuous advisors.
COMMUNITY	VERY HIGH	Community support is very important to help ensure early adoption of a coin or token. Some of the best coins have grown a community which supports the project through its growth. These early supporters (users, suppliers, investors) can become the best form of marketing for a new project by introducing others.
WHITEPAPER	HIGH	A whitepaper is an opportunity for the founders of a project to build trust with early investors and should contain at minimum: a problem statement, how the new product or service proposes to fix a problem, a roadmap with milestones linked to funding allocation, proposed system architecture, technical requirements, operating model design, business benefits, data relationships and dependencies, growth expectations, risk factors, business benefits, use cases, blockchain governance, token economics, and team experience. Also good to have are market sector analysis and competitor analysis (present and future), and planned use of funds – how will the funds be dispersed?
PARTNERS	HIGH	ICOs that announce legitimate brand partners are a good sign of early adoption and user support. Though beware of fake partnership announcements and spruiking – do not underestimate the extent to which fake news permeates the ICO market.
ROADMAP AND MILESTONES	HIGH	A road map should show **pre-ICO** funding targets and **post-ICO** spending milestones. All funds raised should be accounted for. A roadmap should articulate the 'what' and the 'when.' It should also show the % complete for each milestone. A good example of best practice is the Cardano road map. Also look for signs that investors are tied into the long-term success of the project.
COIN OR TOKEN DISTRIBUTION	HIGH	Look for advisors and early investors that are staying on long after an ICO. This gives and important indication that it's not a pump and dump scheme. Also look for a token value proposition and token economics which is easy to understand. Complicated or artificial economics are a potential red flag. Look for investor caps which limit the chance of a whale manipulating price.
PRODUCT OR SERVICE	HIGH	The new product or service must clearly solve a market problem. It should not be entering a crowded market-place. An ICO will hugely benefit from being first to a market sector.
COMMUNICATION	HIGH	New ICO projects must be seen to be very active on communication channels in order to market and inform their global community. Projects seen to be active on Twitter, Facebook, Telegram, Reddit, and blockchain.org are usually well-received. ICO projects which appear in mainstream media like Business Insider, FT, Finextra are also highly regarded.
USE CASES, POC, MVP, BETA OR PROTOTYPE		An ICO project which has developed an early product view increases trust with investors. It also helps investors gain a better understanding of how well the proposed solution will work in practice. A minimal viable product (MVP) provides a tangible product that can be assessed view and helps investors gauge the potential for success.
LISTING PLATFORM		90% of ICO tokens list through the **Ethereum** blockchain platform. This is usually because Ethereum is the easiest and most convenient platform to develop on. If the coin is not developed on Ethereum then understand why.
GITHUB REPOSITORY		The GitHub repository is used to publish the project's software code and key project material. It means the code is open source and ensures other developers can review and challenge, a poorly maintained, empty or closed GitHub repository is a red flag.
OTHER CONSIDERATIONS		Financial projections and modelling, market sector analysis, regulatory impacts (KYC, AML, GDPR, sanctions, the Howey test and US Securities Act, 1933).

Disclaimer: It is important to note, that even if an ICO exhibits the majority of best practice attributes it is not a guarantee of future success. Instead, this table or cheat sheet should be used as a guide that provides a basic level of quality assurance by identifying ICO risks..

2. ASSESSING AN ICO

This paper is the second installment of a two-part series on Initial Coin Offerings. In this paper, I explore what a good ICO looks like and identify the red flags that you need to look out for when considering an investment.

2.1. THE WHITEPAPER AND BUSINESS PROBLEM

A whitepaper is a central communication tool founders use to raise funds and attract investors.

A well-articulated whitepaper should at a bare minimum, begin with a **problem statement** and be followed by a proposed solution. It can also include a number of options. The **solution** to a business problem should detail how it will fix the problem and what new **product or service(s)** it will offer as a solution. In the case of a new coin, it should describe how the underlying blockchain technology will disrupt a marketplace successfully. A strong description of team member skills, qualifications and experience should follow this. The whitepaper should also provide competitor and market sector analysis.

Any whitepaper which fails to disclose these basics – and if you are unable to summarize the project in a sentence or less – is one to steer clear of. You need to be able to summarize what the project aims to solve in one sentence. Some examples include:

Blockchain – solves the Byzantine Generals' problem of a transaction intermediary and trust;

Bitcoin – solves the need for a financial intermediary in a payment transaction;

Ethereum – provides a platform to launch new tokens and apps on the blockchain;

STORJ – provides a cheaper alternative to centralized cloud storage services; and

STEEMIT – provides a platform to publish articles without the need for a publisher (third-party).

> " Technology should solve a problem, for someone. "
>
> **AJAY BHALLA,** PRESIDENT, GLOBAL ENTERPRISE RISK AND SECURITY, MASTERCARD, AT THE BLOCKCHAIN STRATEGY SYMPOSIUM, 22ND MAY 2018 SAID BUSINESS SCHOOL, OXFORD UNIVERSITY.

At a more detailed level, a whitepaper should at the very least contain the following:

- a roadmap which shows how money will be raised and spent
- business benefits
- details of the proposed system architecture
- proposed interactions with blockchain technology
- data relationships and data dependencies
- growth expectations
- financial projections including assumptions
- financial projections comparable to industry benchmarks
- risk factors
- use cases
- blockchain governance
- technical requirements
- detailed team biographies and experience

The whitepaper should also be very clear why the project is going to the public to raise funds (crowdfund). Is it to make the founders quick money, or is it legitimately going to be used to fund a multi-stage development of the coin or token?

Whilst the whitepaper is the key document entrepreneurs use to raise money to help develop a new coin or token, it is just as important to look beyond the whitepaper.

Everything can sound amazing in a whitepaper with promises to innovate and solve a problem, but the reality is that the vast majority are ultimately documents full of empty promises and unsubstantiated claims.

2.2. THE ROADMAP AND MILESTONE

A roadmap should be clearly divided between pre and post-ICO milestones. A pre-ICO roadmap should describe how target funds are to be raised – when, how and by how much. The post-ICO milestones should confirm how the money raised, will be spent. Early investors will be keen to know how funds will be allocated to IT development and when the coin or token will be listed on a cryptocurrency exchange.

A roadmap should be a clear timeline of key milestones.

Common ICO milestones can include:

PRE-ICO MILESTONES – SAMPLE
- Social marketing launch date
- Token information published date
- Website launch date
- Pre-sales targets (private token sales) – how much?
- Pre-ICO coin or token distribution terms and conditions release date
- Token design release date
- Token distribution – will any tokens be deferred or released in batches?
- Investor pre-ICO registration targets – how much?
- Date coins or tokens are allocated to early supporters (investors, partners, advisers)
- ICO or crowdfunding launch date (public token sale)
- Wallet launch date
- Crowdfunding targets – how much?
- Exchange listing date
- Beta or Minimal Viable Product launch date

POST-ICO MILESTONES – SAMPLE
- Token security audit dates
- Product or service launch dates – often multiple
- Final design protocol – completion date
- Final design operating model – completion date
- Mining configuration – completion date
- Development or Build – completion date
- Pilot or Proof of Concept – release date
- Testing – completion date
- Implementation or app deployment on blockchain platform – completion date
- B2C and B2B launch date
- Full product integration – completion date

Milestones are not exhaustive and should be tailored for each individual project. Many milestones will centre around IT release dates and funding allocation. It is usually a red flag, or at least makes a coin or token less desirable, if Pre-ICO milestones are changed mid-fundraise. For example, if an ICO raises its funding target or changes its closing date mid-fund raise, this may indicate that the project is not properly understood or that the founders are primarily in it to make money.

2.3. QUALITY OF THE TEAM AND PAST SUCCESSES

The quality of the team behind the ICO is perhaps the most important aspect to consider when assessing an ICO. It is no surprise that some of the best coins and tokens have some of the best teams behind them. Ethereum (ETH) has the most active developer community by far with Joseph Lubin (ETH co-founder) claiming that it has 30 times more developers than the next largest blockchain community: Fabric.[1] It is also supported by some of the biggest names in Crypto.

When evaluating an ICO team, look at the experience of their specialists. Also look for variation and complimentary skill sets in team members. Look for a bloated adviser group - a potential red flag. Ensure that the whitepaper has detailed individual biographies, which fully outline accomplishments and experience and which also stack up to other sources, such as LinkedIn profiles. Look for thought leaders. Look for any of the specialist fields such as blockchain technology implementation, cryptocurrency, good quality coders and people who have relevant experience. Good project management skills should also be at the top of your list. Google their names, visit their LinkedIn profiles, check their Twitter accounts to assess authenticity and perform Companies House checks. Usually, if a celebrity or famous person is marketing the coin it's another red flag.

Team members with prior success on similar projects or with similar product technologies are usually a good indicator of future success. Reputation is very important and how previous success has been achieved should not be overlooked.

It is also worth noting a team's age. A study by The Kellogg School of Management suggests that tech start-ups are more successful the older the founder and founding team.[2] This debunks the myth of the Silicon Valley wunderkind. For example, the study found that an entrepreneur aged 55 was 3.4x more likely to succeed than a 25 year old.

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[1] Coin Journal, December 2017
[2] Kellogg Insight, May 2018

An indication of future success can also be potentially derived from the quality of ICO advisors and leadership team. **OMG** is being advised by Vitalik Buterin (Ethereum founder), Dr. Gavin Wood (Ethereum co-founder) and Julian Zawistowski (Golem founder) – a strong cast indeed! **Waltonchain (WTC)**, which uses blockchain and the Internet of Things (IoT) to manage supply chain logistics, is being advised by their Chief Scientist, Kim Sukku – a former vice president of Samsung. Both founders are former directors and have extensive experience in logistics. **IOTA (IOT)** and **Cardano (ADA)** also have a number of leaders in their field with a mix of academics, professors, technologists and PhD experts. All are regarded as having strong leadership and advisory teams.

Where there are doubts, gaps in biographies or potential unknowns, it's worth investigating and challenging. In many cases, advisors are unqualified and are literally in it for self-interest and greed. Founders or advisors who propose to sell all or the majority of their holdings soon after exchange listing, is another red flag.

ICOs that provide little information on the team members are an obvious red flag.

2.4. RESEARCH THE FOUNDERS EXPERIENCE

It is important to research the founders proposing an ICO thoroughly. Check whether the bios on their website stack-up. Independently validate experience, career history and qualifications. Perform an audit by googling their names and look for gaps in their work history. Do a Companies House check and compare claims to LinkedIn profiles. And ask yourself the question: "Do the founders have the necessary experience and skillset to manage such a large project, successfully?" – many will not.

2.5. LOOK AT THE ANNOUNCEMENT (ANN) THREAD ON BITCOINTALK.ORG

Bitcointalk.org is the oldest and most active cryptocurrency forum on the internet. It is basically a large website of discussion threads. Most crypto enthusiasts including developers, miners and investors have an account here. And, almost all new projects use this as a platform to announce the launch of their new coin or token – using the annotation of 'ANN'. Investors use these threads to find information, review opinions and ask questions. It's a red flag if developers avoid answering investor questions on this website or are inadequate, inaccurate or slow in responding.

The website also ranks published responses and the older more experienced writers are the ones with more credibility – it's worth monitoring their responses closely. Search for words like 'scam',

'fraud', 'con', 'legit', 'hodl' and 'mlm' (multi-level marketing). Beware of MLM as this can indicate false claims of high return investments.[3]

2.6. A STRONG COMMUNITY IS CRITICAL

After a strong team, comes a strong community. It is imperative that the ICO project builds a strong community. This helps early adoption which ultimately drives success. **Dogecoin** which started very much as a joke meme ended up being a successful cryptocurrency. It can largely credit this to its large community and a focus on philanthropy. It even appeared on Fox News. Chairman of Dogecoin, Brock Pierce, claimed community was everything to a cryptocurrency. The philanthropy component to dogecoin provides a valuable lesson to bitcoiners and the wider community that good deeds can breed support.[4]

Beyond Bitcointalk.org it is worth observing whether the ICO has open and active communication channels, which provide readily available access to developers and team members. Common channels include: **Telegram, Slack, Facebook, blogs/videos, YouTube and Twitter.**

It is also important that an ICO has an active website which provides regular news updates. This includes videos and blogs. A good website will provide a brief, informative video describing what the ICO project hopes to achieve, including the problem it wishes to solve.

ICOs should also provide accurate and reliable answers without circumventing the questions. Common questions include how the company intends to spend money raised.

Other social media chat forums like **Reddit, Medium, Quora, SteemIt** can additionally provide good independent views of an upcoming ICO. Do not under-estimate the insight that Reddit can provide.

Large communities that are well-informed can indicate a positive enforcement for an ICO. Well-informed community members will also act as ambassadors for a project.

Things that can suggest a red flag include: low community participation, hyperbole, irregular ICO communication, unanswered or inadequate developer responses to questions, lack of information on the ICO website, few communication channels and Twitter bounty threads. Be aware of communication threads which hype an ICO by rewarding users for spreading positive information. And airdrops are a potential red flag, though some are a legitimate form of marketing.

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[3] Bitcointalk.org, October 2017
[4] Cryptocurrency, The Future of Money, Paul Vigna, Michael J Casey, Community, 2016

2.7. WHAT DOES THEIR ICO OR GITHUB REPOSITORY LOOK LIKE?

Has the ICO posted their committed development code on GitHub? Is the code complete? Is it of good quality? Has it been peer reviewed and challenged?

GitHub is a web-based hosting service, which is really a big data repository that brings developers together from around the world to share ideas and build better software, through peer-to-peer review, collaboration and data tools. A Github project is called a repository.

A good ICO will use a GitHub repository to save a copy of its committed software code for others to review. Key information about the project should also be saved here.

As of April 2018, GitHub had more than 25 million repositories of source code and 10 million developers. Effectively a very large digital storage space where millions of developers share code and build businesses. And because these repositories act as open-source software projects they can easily be audited by other developers in the know.

Any ICO GitHub which is private, empty or lacking information is a red flag.

> A good ICO will use a GitHub repository to save a copy of its committed software code for others to review.

2.8. STRATEGIC PARTNERSHIPS

ICOs that partner with well-established brands are naturally a good early indicator of potential success. But beware of phony announcements and scams. A recent high-profile example involved BMW and CarVertical.[5] BMW USA was forced to issue a public statement and categorically deny any association with the ICO project CarVertical. The project was effectively using a BMW branded interface (accessible by any third-party), to lay claim that it was partnering with BMW. So, it is important to question all partnership announcements and do your own research.

Some of the best-known coins have strong brand partners. **Bitcoin** has Microsoft and PayPal – both accept Bitcoin as payment. **The Ethereum Enterprise Alliance (EEA)** partners with MasterCard, Credit Suisse, UBS, BP, Reuters, Intel and Microsoft. **Ripple** has over 50 financial institutions supporting its development including American Express, Santander, MoneyGram, Royal Bank of Canada – though it remains a private blockchain and most likely always will. According to a recent report, Ripple has plans to partner with over half the world's financial institutions.[6] **Arsenal Football Club** also announced this year that they were partnering with a gambling ICO.[7]

And beware of the full-blown partnership scams after an ICO launches. The price of Verge surged 66 percent in April when rumours surfaced that it was about to announce a big partnership[8]. It all started in Asia when a developer nicknamed Sunerok, posted a YouTube video, wearing just a hoodie and baseball cap. He started spruiking an upcoming brand partnership without providing much detail and soon the news went viral. He managed to capture an active audience and maintain an air of suspense over a number of weeks and months. Somewhat inevitably, deadlines were missed and observers became increasingly skeptical. Needless to say, the partnership was never announced and all the hype surrounding the coin subsided. In the end, it proved to be a classic pump and dump.

It is worth noting, that there are a number of websites that track ICO announcements, including upcoming partnerships. Some of the better-known ones include **'trackico.com'**, **'icoalert.com'** and **'coinschedule.com'**.

[5] Bitcoin.com, April 2018
[6] Oracle Times, March 2018
[7] Bitcoin.com, January 2018
[8] Forbes, April 2018

2.9. EARLY INVESTORS

Are there any well-respected or established career investors, venture capitalists or influential people backing the ICO? A well-known early supporter of Bitcoin and Tezos included billionaire venture capitalist Tim Draper. His support and people of similar ilk helped propel Bitcoin into mainstream media. Other notable influencers are Brock Pierce (investor and Bitcoin Foundation board member), Chris Larsen (founder and CEO or Ripple Labs), Barry Silbert (investor and founder of Digital currency group), Vitalik Vuterin (Ethereum founder), Andreas Antonopoulos (well respected), Marc Andreessen (early pioneer) and Roger Ver (angel investor).

If any of these people announce their support for an upcoming ICO then it is worth your attention.

2.10. SUPPLY CONSIDERATIONS

Supply will impact the micro-economics of a coin over the long-term, regardless of demand. Put simply, a coin or token with a large supply, say 1 billion, will struggle to appreciate in value over time, when compared to a coin with a supply of 20 million.

Coins or tokens with a **low supply** include: Factom (8 million), Monero (18 million), Bitcoin, Bitcoin Cash (21 million) and Everex (25 million).

Coins or tokens with a **large supply** include ETH (unlimited)[9], IOTA (2.7 quadrillion), Ripple (100 billion), Stellar Lumens (100 billion) and Cardano (31 billion).

All cryptocurrency above are quoted in maximum supply.[10]

It is also worth understanding the difference between circulating supply, total supply and maximum supply. For example, Bitcoin has a maximum supply of 21 million, a total supply of 19 million and circulating supply of 16 million coins, as at March 2018. **Maximum supply** is the total number of coins (or tokens), that can ever exist. **Total supply** is the maximum supply, less coins lost or burned forever (so is an estimate), and **Circulating supply** is the total number of coins mined to date – coins in circulation. Bitcoin is not due to mine its maximum supply until the year 2140.

Coin and token supply is also impacted by pre-mines and instamines.

Pre-mined coins are mined prior to an ICO launch date and have the effect of reducing the coin supply available to the public. These coins are usually sold in bulk soon after listing on an exchange. It is common for large coin holders to flood the market and manipulate price. Large early coin-holders (who basically get the coin for free or at a large discount) can dump at a high price and re-buy later at a lower price later, making an instant profit, yet still owning the same number of coins. This was symptomatic of many of the pump and dump price cycles seen in 2017.

Pre-mined coins can also be used to pay legitimate costs such as early development work, marketing, legal fees and advisory. And they can also be used by the founders to assert control over supply. Examples include **Ripple** which was 100 percent, pre-mined and **Stellar Lumens** which was 97 percent, pre-mined. Of Ripples' (XRP) 100 billion maximum supply, **Ripple labs** own 60 billion XRP, meaning only 40 percent of XRP is in current circulation – mind you, still a very large volume.

Pre-mining in large quantities can mean that more coins go to fewer people. This can result in fewer digital wallets or nodes on the network. This can lead to a loss of blockchain benefits. For example, less nodes on a network means the blockchain is less secure and more corruptible. NEO a platform coin, with its own blockchain, was 100 percent pre-mined, but 50 percent of coins were kept by the **NEO** council to fund further development and 50 percent were sold through crowdfunding to the public. Many would argue that this is a legitimate and plausible use of pre-mining. Some reports suggest that 60 percent[11] of the top 100 coins by market capitalization are pre-mined.

Insta-mine refers to coins mined in the first few hours of an ICO launch and can have a similar impact on token distribution as a large pre-mine. **Dash** insta-mined about 2 million coins out of about 7 million available.

In summary, pre-mined or insta-mined coins reduce available supply to the public, which potentially exposes an ICO to price manipulation once a token launches on an exchange. This impact is further amplified if ownership is concentrated and there is no investor cap in place.

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9 Ethereum has no maximum supply limit, but as of April 2018, Ethereum creator, Vitalik Buterin is proposing to put in place a hard cap at some point – Bitcoinist. com, 2 April 2018
10 Refers to Maximum coin or token supply, which is the total supply to be ever made available.
11 Steemit, Coinmarketcap-premined, June 2017

2.11. COIN OR TOKEN DISTRIBUTION

The planned token distribution after an ICO launches is important. The company should be clear on how tokens will be allocated to founders, developers, advisers, miners and other team members once an ICO is completed. This also includes tokens offered at ICO pre-sale to early seed investors. A large part of the money raised at this point will go towards the cost of marketing the coins and running the ICO. Running a professional ICO can often exceed £1 million in expenditure.

A good ICO will raise funds progressively over time, aligned to milestones in their development plan or roadmap. Each stage of development should be aligned to a stage of funding or to a token release date. This shows that money spent is aligned to the development of a coin or token – a sign of good governance. A poor ICO will distribute coins or tokens, to team members hours after launch (instamine) and quite often up to 50 percent of tokens.

Good ICOs will develop their beta version before distributing tokens. A good example was Ethereum, which waited one year after ICO launch to distribute tokens. This shows honest intent and can help build trust with early investors. This also prevents token holders from selling out early and flooding the market.

It's also worth checking valuation. If a company is valuing coins high and is expecting to circulate billions – this is unrealistic. Also look out for any bonus tokens that aren't incentivized to align to project goals.

Remember the majority of the founding team members are getting their tokens given to them for free which are supposed to be a reward for the hard work the team has put in to date. Many of the founding members will not be receiving a salary during an ICO project and will rely heavily on token allocation alone for renumeration. Look out for early investors who cash out as soon as a coin or token starts trading on the exchange.

2.12. IS IT A COIN OR TOKEN?

A simple distinction which often gets overlooked is whether the ICO is a coin or a token. And, if it is a token, it is important to understand what type of token it is.

A simple definition provided by the website 'CoinmarketCap.com' are that **Coins** operate independently on their own platform, whereas **Tokens** depend on another platform or blockchain to operate. The majority of ICOs depend on the **Ethereum blockchain**. In fact, according to CoinMarketCap.com (March 2018), Ethereum hosts over 90 percent of all token launches. And from 1,600+ roughly 1,600 cryptocurrencies today, 60 percent are coins and 40 percent are tokens. So based on these metrics, coins look like a crowded market. Some of the best-known coins are Bitcoin, Ethereum and Litecoin, whilst some of the best-known tokens are Golem, OmiseGo and EOS. Coinmarketcap.com identifies all cryptocurrencies as either a coin or a token.

Remember, the predominant function of a coin or a token is to keep the network trustless by rewarding miners for their efforts. And the coin is essentially a tradeable exchange of value.

Depending on what publication you read, tokens can vary in definition and demarcation. According to the Swiss regulatory body FINMA, tokens can serve three functions: Payment Tokens, Utility Tokens or Security Tokens. **Payment tokens** are a currency which are used to pay for things. **Utility tokens** are a service or application. **Security tokens** are deemed to be issued equity or profit share and are regulated by the US Securities Exchange Act (1934).

And Brave New Coin, a respected cryptocurrency publication, recognises **payment cryptocurrency assets, platform cryptocurrency assets, side chains** and **application tokens.**

Taxonomy for coins and tokens are yet to be universally agreed, but as a general rule, **a coin or token are defined by their relationship to the blockchain.**
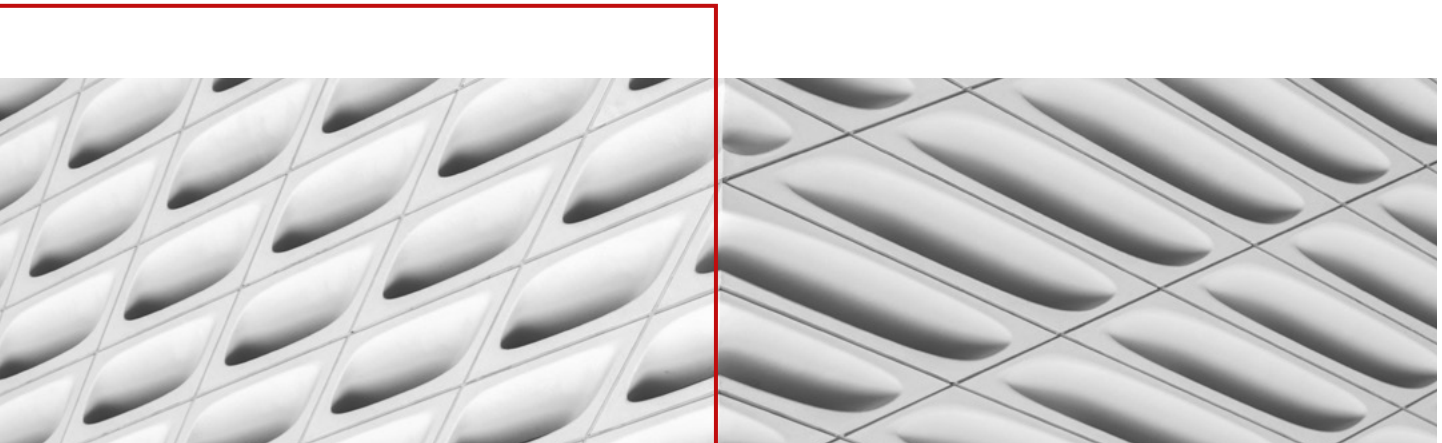
COIN AND TOKEN DEFINITIONS

Currency token or coin: can be used as money in the real world. Examples: Bitcoin, Bitcoin Cash, Dash, Litecoin.

Utility or usage token: has a real-world value native to a platform or ecosystem. For example, Binance coin has a specific use and value to the crypto exchange it supports. The coin can be used to pay exchange fees, is convertible/tradeable with other coins and will increase in value as demand for the coin increases. Though it has limited use outside of the Binance Exchange, the coin offers greatly reduced exchange fees if used to purchase other currencies on its exchange.

A utility token is like an access token – in order to use that businesses platform or service, you need to own their token.

Example: Binance coin.

Application token (DApp): a token to be used for a decentralized application or DApp, which sits on the Blockchain. These tokens will be used to reward miners on the platform.

Example: Eth-Tweet (currently only available in Beta) is a decentralized microblogging service, similar to Twitter, that runs on the Ethereum blockchain. The DApp platform ensures that no one can control or influence tweets. Users are rewarded with ETH donations.

Asset token: also referred to as Tokenised Asset Offerings (TAO), which link directly to the value of an underlying tangible asset. For example, Goldmint which links to the price of physical gold. These tokens are less popular with investors as they are deemed less speculative.

Example: Goldmint (linked to gold price).

Security or Equity token: behaves like an equity, is an investment in an ICO project and is governed by the Securities Act.

Example: tZero ICO which is a portfolio of a company called Overstock Inc.

Reward token: is a token used to reward loyalty and users. An example is SteemIt which is a publishing forum built on a public blockchain that rewards users with Steem dollars, determined by the number of readers they attract.

Example: SteemIt.

2.13. FIRST TO MARKET

Coins or tokens benefit greatly from being first to market, even with inferior technology. Bitcoin benefited hugely from being first to market in **payments** despite slow transaction speeds and high transaction costs.

Ethereum benefited from being the **first blockchain platform** other tokens could build applications and services from. OMG, NEO, ARK, LSK, SXEM, EOS, STRAT and ADA all followed.

Siacoin, Storj and **MaidSafe** benefited from being first to market in the decentralized cloud storage economy, now competing in the $250 billion sector with the likes of Dropbox, Microsoft Azure, Amazon and Google.

Monero, which uses CryptoNote technology, benefited from being one of the first coins to the fungible and private coins sector (also referred to as transaction anonymity or zero knowledge transactions).

2.14. DISRUPTION, MARKET SECTOR AND COMPETITION

It's important to understand what market sector the offered coin or token will operate in. How many existing market participants exist (future competitors) and what the ICO will do differently.

New entrants to a market sector won't just be competing with the existing established participants, but also other new entrants from the Cryptocurrency and Distributed Ledger Technology.

2.15. QUALITY OF THE TECHNOLOGY

Understand which blockchain the coin or token will be launched from, as roughly 90 percent of tokens are launched from the Ethereum blockchain. Note what software language (C++, Golang, Node.js, JavaScript) the developers have chosen to use and whether it will be published as **open architecture** (transparent for everyone to see) on **GiTHub**.

If a token is not launching from the Ethereum blockchain, then it's important to understand why.

2.16. PROVEN USE CASES, POC/BETA PRODUCT LAUNCH

Before a project team goes cap in hand to the public to ask for funding, they should at least have some evidence of how their proposed product or service will work. This should take the shape of a pilot or minimum viable product. This early stage of product development can be referred to by any of the following terminology:

- Proof of Concept (PoC)
- Minimum Viable Product (MVP)
- Beta version
- ProtoType

A Beta of MVP version are considered to be further ahead of the development curve than a PoC or Prototype. Consequently, a more advanced product development, has a greater probability of attracting potential investors. Use cases and user stories also help investors understand how potential customers will interact with the product.

Proven use cases and proof of concept don't necessarily guarantee success. **DigiCash** founded in the early 1990s by **David Chaum**, a cryptographer linked to Cypher Punk movement, offered an electronic form of currency with proven use cases. He had signed contracts with the Dutch government and most major banks including Deutsche Bank, Credit Suisse, Advance Bank, Australia and Sumitomo in Japan. He was also in advanced talks with VISA and Microsoft. It filed for Chapter 11 bankruptcy in 1999, citing poor management decisions.

In June it was reported by The Financial Times[12] that a Cayman Island-based crypto company **Block.one** raised $4 billion without a MVP, meaning it raised this capital on investor confidence alone and also making it the largest ICO in history. The previous largest ICO was **Telegram**, which raised funding of over $1.7 billion. Both projects are now suspected of fraud and misgivings.

Any project that does not have evidence of an MVP before going to ICO, is a red flag.

2.17. REGULATORY IMPACTS

With the SEC already closing down a number of ICO projects in 2018 and even publishing a fake ICO website[13] in May of this year, to help educate investors, it is paramount that you also consider whether an ICO is complying with its regulatory obligations. Keep in mind that ICOs are not yet regulated to anywhere near the standards of an IPO.

An ICO needs to consider a number of regulations, when accepting funds from clients, these could include:

- Anti-Money Laundering (AML)
- Know Your Customer (KYC)
- FCA, EU, US financial sanctioned clients
- General Data Protection Regulation (GDPR)
- US Securities Act (1933) – and the 'howey test'

The majority of these regulations are designed to protect a customer's rights and legislate against fraud, including misusing personal data. Any breach of these obligations could lead to the project being shut-down and/or paying large fines.

Once the project is up and running it will also need to consider any or all of the following regulations:

- Payments Service Directive (PSD2)
- MiFID II (OTF, MTF, TTR)
- FCA, Payment Accounts Directive
- IFRS
- IAS 38.

Parity Technologies, **Cointouch** and **Localbitcoins** were all forced to shut down recently, with the introduction of GDPR, due to its new stricter laws for personal data[14]. Parity Technologies provides automated KYC/AML checks through an Ethereum wallet. Under new GDPR rules, which are aimed to protect the 'digital rights' of EU citizens, storing personal information on the blockchain presents new challenges; remember blockchain information is irreversible. All future ICOs will need to be GDPR compliant and consider new client data regulations.

It is important to closely monitor regulatory developments relating to ICOs.

[12] Financial Times, June 2018
[13] Coindesk, May 2018
[14] Bitcoin.com, May 2018

2.18. USEFUL WEBSITES

Reddit.com – a great reference tool for varied opinion. Not to be under-estimated.

BitcoinTalk.org – one of the most reliable places to get information on ICOs. Often the first place an ICO is mentioned including its whitepaper.

CoinGecko – provides information on Liquidity, Developer rating (referenced to GitHub), Community rating, Public interest rating (references search engine results) and makes an attempt at a Total ICO rating.

ICORating – professional ICO rating service.

Coinist – historical data, ICO return on investment.

CryptoCompare, CoinmarketCap – coin comparison and price, market capitalization monitoring websites.

ICOStats – similar to Coinist.

ICOAlert – monitors upcoming ICOs.

ICODrops – ICO calendar.

ICOBench – ICO ratings.

TokenMarket – good assessor of tokens.

Coincentral – review and analysis.

2.19. COMMON ICO RED FLAGS:

- Celebrity involvement (suggests a large spend on marketing and advertising).
- Twitter bounty threads (which reward users for tweeting about an upcoming ICO).
- A planned high token distribution to the founders (>50 percent indicates a red flag).
- No individual investor limit – exposes the project to a whale and price manipulation.
- ICO funds not stored in an escrow wallet or multi-sig wallet (one key must be held by neutral 3rd party).
- No ICO hard cap – indicates the founders haven't done their homework or prioritize personal gain.
- High coin or token supply (1+ billion is high).
- Developers leaving inadequate or unanswered questions.
- Poor team bios on the website or bios that don't align to other sources (e.g. LinkedIn).

- Unfavorable reviews by experienced publishers on Bitcointalk.org.
- A coin or token which is entering an already crowded market sector.
- A poorly structured White Paper which is missing key content criteria and/or is plagiarized.
- Few, infrequent or poorly managed communication channels.
- Poor online presence.
- An empty GiTHUB (code, ICO info) repository.
- Plans to pre-mine or Instamine (they often won't tell you).
- Promotional offers and Airdrops – not always the case, but be wary.
- Founders who have a chequered history including former bankrupts (research them thoroughly).
- No roadmap or an unrealistic roadmap.
- Any promises of getting rich quick from an ICO.
- A White Paper that details a solution without a realistic problem or no problem at all.
- Failing to disclose how all the funds will be spent and not linking it to milestones on a road map.
- Anonymous developers.
- An ICO project which is not clear on it's purpose and objectives.

2.20. A GOOD ICO WILL:

- Set token purchase limits per individual investor – reduces market influence and potential for price manipulation.
- Set fundraising limit for overall ICO – indicates good intention.
- Keep token price consistent pre-ICO.
- Solve a current business problem.
- Provide "intro video" of key features of the ICO.
- Be fully transparent.
- Be open and communicative with their community.
- Provide detailed and accurate bios.
- Fix bugs quickly.
- Provide professional audit (smart contract, software bugs).
- Implement Blockchain governance.
- Publish a crisis management plan.
- Ensure open architecture of blockchain software code on GitHub.
- Publish a live token counter on their website to track tokens sold.

3. CONCLUSION

A large number of ICOs in 2018 will not be worth investing in, simply because of the large number already out there, and historical failure rates.

Indeed, more than half of ICOs from 2017 have already failed.[15] However, it's important to appreciate that these failure rates are broadly in line with venture capital failure rates, so some ICOs will still be worth investing in.

To identify the ICOs that can potentially succeed look to the quality of the team, team members with previous success, community strength, active communication channels, evidence of an MVP, token distribution model, token economics, a realistic roadmap, and essentially, **that the project is solving a problem for someone!**

And remember, if you can't summarize what the project is doing in a sentence or less, then it's probably not worth investing in.

The success of an ICO is ultimately dependent on long-term community support, early user adoption and continued market penetration, which isn't hampered by scaling issues.

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