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Corran
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Division Head
Financial System Division The Treasury
Langton Crescent PARKES ACT 2600

Response to Treasury Initial Coin Offerings Issues Paper

Corran Toohill Capital is pleased to be able to respond to the Treasury consultation on initial coin offerings. We are an investment and advisory firm founded in Silicon Valley in 2006 with a strong commitment to developing an effective ecosystem for the commercialisation of disruptive technology in Australia, particularly where that technology delivers triple bottom line benefits, i.e. social, environmental and financial.

The firm has followed cryptocurrencies, blockchain and crypto-economics since late 2013. Personally I became involved evaluating and testing distributed ledger technology in 2015 while working with a large energy company. Since 2016 Corran Toohill has made investments in cryptocurrencies, utility tokens and leading blockchain focussed venture capital funds. We have advised several projects and funds, including one which executed a successful complaint ICO in the US in 2017 and another that prepared for an ICO in 2018 but eventually cancelled the token sale.

We expect that many submissions will point out the excesses of the ICO boom in 2018. We agree there were many failures in transparency and investor protection, often driven by naivete, inexperience and opportunism, but in some cases outright fraud. We also expect submissions which address the opportunities and risks presented by Payment Tokens (digital money or cryptocurrencies) and Financial Asset Tokens, i.e. digital financial instruments, often called Security Token Offerings (STO)¹. While these applications are worthy, we do not believe they represent the greatest opportunities enabled by blockchain.

Our response will focus on Consumer Tokens, also known as “utility tokens”, which are “Tokens that are inherently consumptive in nature, because their intrinsic features are designed to serve as, or provide access to, a particular set of goods, services or content.” (GDF 2018).”

Such tokens, combined with well designed crypto-economic incentives, enable new organisational structures (e.g. a DAO or digital autonomous organisation) and new ways to manage the commons or public goods. As such, their applications and opportunities lie well outside what could be achieved with conventional for-profit financial products or securities. Therefore we believe they merit special treatment, perhaps similar to Malta, Switzerland or Wyoming.

Yours sincerely,

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¹ GDF, [GDF Taxonomy for Cryptographic Assets](#), 2018 published by the Global Digital Finance project.

The Need for Special Consideration of Consumer Tokens used to Manage a Commons, Public Good on Non-profit

The use of tokens to manage the commons, public goods or non-profits is a complex, immature and rapidly developing space. We do not have definitive answers on how they might develop or be regulated. Rather the purpose of this response is to build awareness that this is an application for ICO which is clearly differentiated from assumptions of private ownership underlying the regulation of financial products and securities. Therefore we request that policy makers and regulators give special consideration.

Consumer Tokens, also known as “utility tokens”, are “Tokens that are inherently consumptive in nature, because their intrinsic features are designed to serve as, or provide access to, a particular set of goods, services or content.” (GDF 2018).”

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The tragedy of the commons, public goods and natural monopolies are well known economic problems. The “Tragedy of the Commons” was coined by Garrett Hardin in 1968. He described how individuals, acting independently according to their self-interest, can accidentally destroy a shared resource. Together, economists, policy makers and engineers have designed tools to mitigate the costs. For example, land tenure (essentially privatisation) solved overgrazing of commons. Regulated returns were enforced for utilities with natural monopolies. Set-top boxes help pay to launch TV satellites. Toll-gates enable road funding. Buying groups enable neighbourhood grocers to compete with retail giants. Typically the solution has been some combination of private ownership or central regulation.

However, despite 100s of years of such policy intervention, modern markets still demonstrate one or more of the “Big 4” market failures:

1. Concentration of market power, i.e. an oligopoly of giant players or regulatory capture by natural monopolists.
2. Failure to provide public goods e.g. poor system reliability and resilience, congestion, or limited access for vulnerable communities.
3. Externalities from exploitation of commons, e.g. environmental (i.e. air, water, climate) or social, e.g. free riding by corporations and underpayment of software developers contributing to open source software projects.
4. Asymmetry of information, i.e. volume and price data, aggregation of consumer data.

Clearly private ownership and central regulation have not always worked. But there are commons and public goods that have worked without private ownership or central regulation. There is an open source peer to peer payments system that has been operating for 10 years with no central owner, no single point of failure, and no central regulator. The community using this system are inherently motivated to improve the usability, security, and reliability, and therefore grow the size of the community and value of network. That network is called “Bitcoin”.

Wild and futuristic? Perhaps not. Elinor Ostrom (1933-2012), winner of the 2009 Nobel Prize for Economics studied how communities managed common pool resources in Switzerland, Kenya, Guatemala, Nepal, Turkey and Los Angeles. Some of these systems dated back hundreds, if not thousands of years. She identified eight design principles²:

1. Define clear pool and group boundaries.
2. Match rules governing use of common goods to local needs.
3. Ensure those affected by rules can participate in modifying rules.
4. Devise community based monitoring system.
5. Use graduated sanctions for rule violators.
6. Provide accessible low-cost means for dispute resolution.
7. Make sure rule-making rights of community respected by authorities.
8. Build tiers of governance of commons from local to global level.

However, until recently, these principles for managing commons were not viable at scale, essentially limited to the size of a workable human community (e.g. Dunbar's number), geography, or the speed of transactions within that community.

As Bitcoin, Ethereum and other aspiring projects demonstrate as prototype Digital Autonomous Organisations (DAO), Ostrom's principles can be applied at global scale between people that cannot know each other personally, thus creating a new tool for managing markets, public goods and the commons.

The challenge is how to bootstrap such a network? Creating a new network requires capital, labour and data. However there is a strong risk that the network will not reach scale, resulting in insufficient returns on those resources. In the case of a for-profit enterprise, angel investors or venture capitalists may provide risk capital. However, a return to equity or debt may not be applicable to a decentralised commons, public good or non-profit enterprise.

Pre-selling a consumer token economically tied to the network is one way to raise capital for such a venture. However, clearly the early buyers are taking a risk, and they are also anticipating an economic return, either through access to the network or through appreciation of the token value. While the long-term objective is a decentralised non-profit with no private ownership, the initial sale of tokens does have risks similar to a securities offering. Therefore there is a need to protect investors and ensure fair, efficient and transparent markets. The design of regulation is complicated by uncertainty over when such a venture makes the *transition* from securities-like state to a real commons. William Hinman of the SEC has spoken on some of these challenges in the US context³. The recent legislation in Wyoming also implies a recognition of the difference from a conventional securities offering.

We argue that token sales focussed on creating a new commons or a managed public good should receive special consideration, and perhaps even separate categorisation, on the following basis:

- Potential for solutions for market failures and inefficiencies in many conventional markets dominated by private ownership or regulation.
- Ability to fund commons, public goods and non-profits, which is clearly differentiated from assumptions of private ownership implied by financial products or securities.
- Promotion of finance for public benefits, which already gets favourable treatment in many jurisdictions e.g. taxation of local government bonds.

² At a national level these governance principles could be described as Citizenship, Law, Democracy, Enforcement, Penal System, Courts, Sovereignty, and Federalism.

³ <https://www.sec.gov/news/speech/speech-hinman-061418>

- Promotion of risk capital, innovation and technology ecosystem in Australia, e.g. similar to the favourable tax treatment of ESVCLP or treatment of mineral prospecting using NL structure.
- Ability to enable long-tail capital formation for such projects from international token buyers, rather than being limited to Australia's small market.

We believe that accountability, disclosure and transparency are not negotiable. Eligibility for special treatment would need to be tested or applied at the time of issue, at the time of "transition" to a decentralised non-privately owned status, and/or at the time of "exit" or sale by a buyer, be that before or after the point of "transition". We have no illusions as to the challenges of defining the criteria, proving eligibility at issue, then dealing with changes in plan prior to exit. Using a special form of corporation for projects focused on the commons and public goods, perhaps with a time boxed or "self destructing" life may be a useful way to enforce intent from the beginning. Analogs in current regulation include restrictions in changing from one corporate structure to another.

A final note: while this response supports the concept of consumer tokens, we recognise that many of the projects promoted as consumer tokens or "utility tokens" in the 2018 ICO boom were of questionable economics and utility. In many cases, the proposed native token could have been removed and replaced with a payment token (e.g. Bitcoin or Ethereum) or even with a conventional fiat currency without any impact on the utility of the network. Moreover, many of the projects were not attempting to enable decentralised governance of a commons or public good.

The remainder of this response answers the specific Treasury questions in the context of Consumer Tokens used to manage the commons, public goods on non-profits.

Definitions and Token Categories

1.1. What is the clearest way to define ICOs and different categories of tokens?

- We are using the [GDF Taxonomy for Cryptographic Assets](#) published by the Global Digital Finance project because it is an attempt for international standardisation of essentially borderless assets. The taxonomy is quite similar to the taxonomy used by Switzerland, the Brooklyn Project and others.
- The three main categories are:
 - Payment Tokens: Tokens whose intrinsic features are designed to serve as a general purpose store of value, medium of exchange, and/or unit of account.
 - Financial Asset Tokens: Tokens whose intrinsic features are designed to serve as or represent financial assets such as financial instruments and "securities".
 - Consumer Tokens: Tokens that are inherently consumptive in nature, because their intrinsic features are designed to serve as, or provide access to, a particular set of goods, services or content.
- Consumer tokens are further broken down into
 - Ownership of digital good.
 - Coupon rights.
 - Activity rights, i.e. a reward or license.
- In regards for treatment of Consumer Tokens used to enable a commons, public good or non-profit, it may be necessary to add an additional dimension to the taxonomy. For example the degree of decentralisation, mode of governance or distribution of earned value could be important factors.

- Part of the definition could be based on an understanding of the “good” enabled by the token, regardless of the ability to privately own the token. That is, can the current form of the good be defined as non-rivalrous or non-excludable? To whom the benefits accrue in a steady state of the network?

Drivers of the ICO Market

2.1. What is the effect and importance of secondary trading in the ICO market?

- In the context of enabling management of the commons and public goods, the ability to trade tokens is essential to enable liquidity and the operation of incentives in the network.
- However, speculative trading of tokens (or of conventional equity shares) is generally very damaging to early stage projects that have yet to find product-market fit or established cash positive economics.
- Moreover, secondary markets without adequate regulation can create incentives for poor behaviour such as “pump and dump” or “deep discount and dump” schemes.
- We believe lock-ups for founding teams and early investors are good practice and promote long-term investing rather than speculation. That said, a degree of speculation is useful to create liquidity in any market.

2.2. What will be the key drivers of the ICO market going forward?

- Regulatory certainty.
- Good public policy directed at innovation and internationalisation. Especially in Australia which lacks adequate risk capital for innovative technology, largely driven by the small size of the domestic economy.
- Technological progress.
- High quality teams and application areas.

Opportunities and Risks

3.1. How can ICOs contribute to innovation that is socially and economically valuable?

- As described in the introduction to this response, tokens can enable new organisational models and the management of the commons and public goods. Please read the introduction as the response to this question.
- This is a truly unique application for blockchain technology.
- Australia could take a lead by recognising that these applications are clearly differentiated from the private ownership assumptions embodied in financial products and securities.

3.2. What do ICOs offer that existing funding mechanisms do not?

- As described in the introduction to this response, tokens can enable new organisational models and the management of the commons and public goods. Please see the introduction for more detail.
- Token sales can be used to enhance the existing methods for selling financial products and securities in terms of traceability, transparency, governance and flexibility.
- Moreover, they can enable long-tail capital formation for such projects from international token buyers, rather than being limited to Australia’s small domestic market.

- Compared to conventional private equity for early stage technology they can enable liquidity for founders and investors (although this can be a double edged sword).
- Tokenised assets can also offer more nuanced and programmable rights and obligations.
- Tokenised assets may enable more sophisticated synthetic instruments.
- The opportunity for retail investors to participate in early stage technology investments, which are typically reserved for wholesale investors and funds in the current system.

3.3. Are there other opportunities for consumers, industry or the economy that ICOs offer?

- As described in the introduction to this response, tokens can enable new organisational models and the management of the commons and public goods. Please see the introduction for more detail.
- An important benefit more applicable to small markets like Australia is the ability to enable long-tail capital formation for such projects from international token buyers, rather than being limited to Australia's small domestic market.

3.4. How important are ICOs to Australia's capability to being a global leader in FinTech?

- Australia's funds management industry is conservative and heavily entrenched in the existing global financial system. However, the financial sector is undergoing massive change on a world wide scale. China, India and Southeast Asia are leap-frogging traditional financial channels in the same way they leap-frogged copper lines in favour of mobile communications.
- In the words of Ernest Hemingway:
 - "How did you go bankrupt?" Bill asked.
 - "Two ways," Mike said. "Gradually and then suddenly."
- Blockchain is just one of the technologies that may be part of the future of finance. Australia's risk is that we leave the business model and technological innovation to our generally conservative large corporations. In order to unlock start-up innovation we need to improve risk capital formation.
- Our domestic venture capital industry is small. Crowd Source Equity Funding (CSEF) works well for small business, but is too limited for the capital needs of startups taking real technology or business model risk.
- An important benefit more applicable to small markets like Australia is the ability to enable long-tail capital formation for such projects from international token buyers, rather than being limited to Australia's small domestic market.

3.5. Are there other risks associated with ICOs that policymakers and regulators should be aware of?

- The Treasury issues paper did a good job of describing the risks.
- We point out that many of the "investors" in the 2018 ICO boom were speculators rather than investors and showed scant regard for due diligence or risk management.

Regulatory Frameworks in Australia

4.1. Is there ICO activity that may be outside the current regulatory framework for financial products and services that should be brought inside?

- We believe that certain Consumer Tokens and utility tokens that enable the management of commons, public goods or non-profit ventures may overlap the current regulatory framework for

financial products and services. However, care should be taken in considering bringing them inside that framework, for the reasons described in the introduction.

4.2. Do current regulatory frameworks enable ICOs and the creation of a legitimate ICO market? If not, why and how could the regulatory framework be changed to support the ICO market?

- The current regulatory frameworks can work reasonably well for Payment Tokens and Financial Asset Tokens. However, ASX standards are onerous and costly for small technology start-ups while CSEF is too limited.
- The current frameworks are not suitable for bootstrapping a commons, public good or non-profit using a Consumer Token or utility token for reasons described in introduction.
- We are not regulatory experts. However a potential approach could be to establish a special form of corporation, apply transparency and disclosure similar to CSEF, allow fundraising caps more in line with a technology start-up, require lock-ups, and implement monitoring of secondary trading.
- Jurisdictions such as Malta, Switzerland and Wyoming have made changes that recognise the special nature of Consumer Tokens. However, criteria such as “not marketed as investments” does not recognise that some expectation of economic return on the part of buyers and contributors is required to bootstrap a risky network, even if the ultimate for of the network is a commons.

4.3. What, if any, adjustments to the existing regulatory frameworks would better address the risks posed by ICOs?

- See above and introduction. Transparency, disclosure and efficient markets are essential. AML and KYC are also important.

4.4. What role could a code of conduct play in building confidence in the ICO industry? Should any such code of conduct be subject to regulator approval?

- Codes of conduct are very important.
- The code of conduct should be international in nature.
- Regulator approval should not be required as the Code of Conduct will be international and is likely to evolve faster than typical regulatory cycles. However, the regulator should be involved in the collaborative development.
- Local regulators can also signal through their public announcements and enforcement as to their interpretation of the code of conduct in the local context.

4.5. Are there other measures that could be taken to promote a well-functioning ICO market in Australia?

- Special consideration for Consumer Tokens of projects directed at creating a commons, public good or non-profit.

Tax Treatment of ICOs

5.1. Does the current tax treatment pose any impediments for issuers in undertaking capital raising activities through ICOs? If so, how?

- We will limit comments to the context of Consumer Tokens or utility tokens used to enable management of the commons, a public good or non-profit.

- We have no particular expertise in accounting or tax. However, we are assuming that such projects are seen as a public benefit and therefore should receive favourable tax treatment.
- The Consumer Token sale is essentially a pre-sale of tokens that will later be used to access the network (see the summary of the GDF definitions in Question 1.1). The sales are revenue and therefore there is a tax implication. However, the main *purpose* of the cash is to fund the development of the network. This tax treatment can tend to skew the economic behaviour of the team.
- Other characteristics of a token sale should also be considered. For example, the value of the tokens may either:
 - Increase as the use and utility of the network grows, and therefore enable the holder to access more of the good or sell tokens surplus to their needs, or
 - Fall to zero because the network fails to launch, achieve product-market fit or reach scale.
- Based on the experience of angel and venture investments⁴, complete failure is likely in 50-75% of cases. Should the venture fail, then the actual good will not be delivered and the token has zero value.
- The actual good is embodied in software with a very low margins and marginal cost. The upside of the team and early buyers is mainly driven by the increase in the value of the token rather than sales of tokens.
- A progressive approach might be to have a different tax treatment of proceeds in the case where the entity was created to develop a commons, public good or non-profit. For example, could the proceeds be treated as a donation, grant or loan with certain rights? Or could any tax liability be deferred?

5.2. Is the tax treatment of tokens appropriate for token holders?

- We will limit comments to the context of Consumer Tokens or utility tokens used to enable management of the commons, a public good or non-profit.
- The Consumer Tokens may represent a pre-purchase of a product or a donation.
- One way to treat this would be like currency, i.e. gains are taxable if the buyer is a trader, but otherwise ignored. Another way to treat it would be to have a threshold amount that is considered personal use and the rest as capital gain.
- A more progressive innovation policy approach would be to have some form of concessional capital gains treatment similar to that afforded to ESVCLP.
- Another approach could be to have a different treatment depending on the stage that the project has reached at the time of sale. For example, concessional capital gains would apply for sales after the point at which the token network is deemed to have become a decentralised commons.

5.3. Is there a need for changes to be made to the current tax treatment? If yes, what is the justification for these changes?

- See above.
- The main justification for changes are to:
 - Foster the international funding of technology start-ups in Australia.
 - Promote the development of novel means of bootstrapping new ways to manage the commons, public goods or non-profit enterprises.

⁴ For example Wiltbank, R. and Boeker, W., Returns to Angel Investors in Groups, Ewing Marion Kauffman Foundation, 1 Nov 2007, who found a 52% failure rate for well-organised angel investing clubs.