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Crypto Policy Unit

Financial System Division

The Treasury

Langton Crescent, Parkes ACT 2600

Australia

cc: crypto@treasury.gov.au

Subject: https://treasury.gov.au/consultation/c2023-341659

Thank you for the opportunity to respond to the Token Mapping consultation process, we are appreciative of the government's efforts to ensure Australia has a fit for purpose regulatory regime. This submission is made by Blockchain Australia, in collaboration with its members and industry stakeholders.

With this in mind we have been working with our members to provide feedback on the paper. We represent over 120 blockchain centric businesses that are members and they cover a range of industry verticals and subject matter domains and are consequently impacted differently by the regulation of crypto assets and services.

As such our feedback aims to provide a balanced view of their concerns and recommendations. Many members have made individual submissions highlighting their specific concerns and we encourage the government to treat those with importance.

In responding to this consultation we seek to ensure that any changes proposed by government support the following objectives:

- Provides appropriate investor protection, via a framework that recognises the reality of the inherently global and borderless nature of digital assets
- Encourages innovation and ongoing investment into blockchain and related technologies such as cryptography

- Takes into account the needs of both institutional and retail investors
- Takes into consideration the depth and breadth of members who all have different needs and who are already contributing to the Australian economy

It is critical that, in developing a fit-for-purpose framework, Treasury ensures that its regulatory regime allows consumers the opportunity for informed consent, and sets clear and appropriate safety rails, without discriminating against blockchain technology or innovations in the industry. It is also important that Australia has a competitive regulatory framework in the context of the international stage. In particular the Treasury may wish to consider benchmarking against the European Union, Hong Kong, Dubai and the United Kingdom. These jurisdictions are leading Australia in their approach to crypto-assets and policy development for the sector.

Our members have all been complimentary on the quality of the Token Mapping Consultation Paper and its articulation of the challenges involved in building an appropriate regulatory framework. In reviewing the paper we make the following observations:

- The technology is global and can't be regulated by a single country. Our members face the challenge of either trying to build a global business from Australia or bring global capabilities to their Australian operations. In both circumstances the cost of complying with Australian legislation that is inconsistent with other global markets will be prohibitive to those operating in Australia, putting them at a disadvantage.
- Grandfathering, transitional periods and/or safe harbours are needed for those already operating while regulation is being developed. We note that strong international precedents exist for crypto-asset transition periods and safe harbours. Transitional arrangements have been implemented in likeminded jurisdictions such as the United Kingdom, Canada and Singapore. The UK's transitional period was in place for over 2 years. Canada's transitional period was set at 2 years. Singapore's transition period was only in place for 6-12 months (depending on the type of entity) and was widely regarded to have been too short in hindsight, considering the bottleneck of licence applications that MAS has faced. In the European Union, MiCA proposes an 18 month transition period. In the United States, Securities and Exchange (SEC) Commission Hester Pierce has proposed a three-year exemption.
- In addition to global consistency there needs to be consistency in regulatory approach across:

  - Treasury
  - ATO
  - ASIC
  - APRA
  - Austrac
  - Reserve Bank of Australia

- Fundamental technological differences between crypto and traditional finance may mean that the route to achieving the same regulatory outcomes could be different, licensing and custody are two areas where this needs to be explored.
- There are a range of use cases for digital assets where:
    - It is unclear whether a crypto token or service is a financial product and in what circumstance, examples include staking and yielding.
    - The existing regulations for financial products would not be appropriate for the use cases.
- Per the consultation paper over 1 million Australians are expected to include crypto in their tax return and according to Cointree statistics up to 4.6 million Australians own crypto[1]. The other takeaway from the research is that the owners of the asset understand the volatility involved in owning it, which raises questions of what further protections are necessary.

With this context in mind we make the following high level comments/recommendations.

- We agree with a principles based approach to determining if a particular token or other crypto asset or crypto service is a financial product, with a focus on the activity being performed, not on the technology.
- To ensure that Chapter 7 operates correctly for crypto assets deemed financial products we recommend that the definition for facilities and managed investment scheme be amended to provide bright-line guidance on the regulatory perimeter. Other definitions may similarly need to be reviewed.
- In section 42 of the paper calling a “Crypto Asset” a system is confusing.
- Our members have two views about tokens that are not deemed to be financial products:
    - The first is that we need a dedicated and bespoke Crypto regulatory regime for those assets that require regulatory guidelines but for which the existing regime is inappropriate (refer to UK, MICA, US, Singapore, VARA);
    - The second view is that it is too early in the evolution of these products and we should wait to see how the landscape evolves before trying to regulate the space.
- For DCEs we recommend a separate licensing regime to the existing Market Operator (Tier 1/Tier 2) regime but recognising the way DCEs operate.

[1] https://www.cointree.com/learn/cryptocurrency-australia/

- For custody, we support the upcoming consultation process and see it as critical in underpinning a safe and secure environment.
- We suggest a specific consultation on staking be undertaken in parallel to custody and CASSPr licensing. The operating models used by Custodians and DCEs will be impacted by the rules governing staking.
- Consideration of a future passporting regime or equivalence recognition to assist Australian organisations seeking to expand globally and to enable organisations from other jurisdictions to more easily enter the Australian jurisdiction. Sufficient equivalence relief has been part of financial services regulation. This is currently in a state of flux after proposed changes halted under the previous government. We support a sufficient equivalence regime given the global nature of crypto.

Some of our members are concerned that in adopting a principles based approach to determining whether a crypto asset or service is a financial product uncertainty remains. With each participant needing to determine the nature of each token, inefficiencies and inconsistency of treatment is introduced.

A good example of this can be seen in financial services where the project owner, DCE, Asset Manager, Custodian, Financial Planner, Tax Advisor, and consumer would all have to independently determine if a token was a financial product or not and they may come to different conclusions. The significant costs associated with each party having to obtain independent professional advice and potentially have different outcomes, across hundreds or potentially thousands of assets, is not optimal. In Australia, a cost of $15,000 - 25,000 for legal advice per token is not uncommon. Not only is this cost-prohibitive, it impedes scaling. There are simply not enough blockchain lawyers in Australia to be able to service this demand, even for those who can afford it.

A solution suggested by a number of our members to address this would be the creation/appointment of a government agency to provide determinations on whether a Token is or is not a financial product or to publish clear guidance on where a Token or Token System would be considered a financial product or not.

We have discussed with our members ways to minimise the cost and provide more certainty. One suggestion that has been put forward is for the government to create a Web3 (Crypto Division) agency that amongst its other functions could provide guidance and draft rulings, similar to private and public tax ruling (issued by the ATO) that would provide certainty to all parties in the value chain and be staffed with a specialised team.

This paper was prepared in collaboration with our members and board who would welcome the opportunity to meet with the Treasury to discuss any matters in our submission or the broader cryptocurrency evolution.

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Specific Recommendations

#	Recommendation
1	That “crypto tokens” not be specified as a financial product by default. It would be inappropriate for all tokens to be regulated under these rules
2	In section 42 of the paper calling a “Crypto Asset” a “System” is confusing. It should be made clear that tokens are not in and of themselves, financial products absent certain specific features.
3	That a consultation on staking happens in parallel to the proposed Custody and DCE licensing consultations leading to bright line guidance on when staking will be considered to be a financial service or not.
4	Consideration should be given to implementing a dedicated Crypto taxonomy, with the timing of these definitions to be considered in light of rapidly evolving global regulations, consistency with the approach of other countries and the development of new use cases and products in Web3.
5	That fit for purpose licensing rules be developed for Digital Crypto Exchanges (DCEs), which do not have the same cost and regulatory burden of the existing Market Operator (Tier 1/Tier 2) regime.
6	That Bitcoin and Eth and similar tokens not be regulated as financial products.
7	Development of a passporting regime or equivalence recognition to assist Australian organisations seeking to expand globally and to enable organisations from other jurisdictions to more easily enter the Australian jurisdiction.

About Blockchain Australia

Blockchain Australia is the peak industry body representing Australian businesses and business professionals participating in the digital economy through blockchain technology. Blockchain Australia encourages the responsible adoption of blockchain technology by the government and industry sectors across Australia as a means to drive innovation and create jobs in Australia.

The Blockchain Australia membership base consists of 120+ leading cryptocurrency and Blockchain-centric businesses and 100+ individuals across multiple verticals, including:

- Accounting and Taxation
- Artificial Intelligence
- Art
- Banking
- Building & Construction
- Cyber Security
- Development
- Digital ID
- Education
- Energy and Resources
- Entertainment
- Gaming
- Health and Wellbeing
- Insurance
- Investment
- Legal
- Professional Services
- Recruitment
- Real Estate
- Risk and Compliance
- Supply Chain
- Venture Capital

The sector contributes AUD$2.1 billion, employs approximately 11,600 people (Source) and with support from government and natural market growth, these figures could increase to AUD$68.4 billion and over 206,000 people employed in the sector. To ensure Australia realises these opportunities, we seek a fit for purpose, technology-neutral, regulatory framework with clear guideposts for consumers and a focus on driving innovation and investment.

Background	Q1) What do you think the role of the Government should be in the regulation of the crypto ecosystem?

We are supportive of the government's stated desire to develop "Technology Neutral Regulation", and to create (i) rules to ensure the markets are fair, efficient, and competitive; (ii) standards to ensure the safety and quality of the products and services; or (iii) measures that encourage or discourage certain activities.[2]

It is critical that the government ensures that innovation and investment into the sector is encouraged. If regulation is too restrictive it will drive crypto entrepreneurs, innovation and services offshore, without materially improving regulatory outcomes, perversely leaving consumers and investors with fewer protections than if those customers and investors were dealing with Australian based and Australian regulated businesses.

As we submitted in our response to the Senate Select Committee on Australia as a Finance and Technology Centre consultation, Blockchain (Web3) ecosystems technologies have the ability to change how we think about many aspects of our lives, from banking to gaming through to art and even governance itself.

An evolving economy, taking advantage of these digital assets and systems, is beginning to emerge, and policy makers have an opportunity to turn Australia into an exporter of this technology in the same way we see software exported from Australia by the likes of Atlassian and others now. This is not a race to a "regulatory bottom".

More progressive jurisdictions have realised that old policy settings and regulations are not fit-for-purpose. These were developed without decentralised technologies in mind, are often in reality not technology neutral in their outcomes, and are in many cases decades old.

The role of good regulation is to support business, encourage innovation, and ensure that consumers are protected by reducing information asymmetries. Well designed regulation should solve these problems with as little friction as possible. Given the global nature of blockchain and Web 3, unnecessarily onerous regulation will force these services offshore and consumers will not benefit from Australian regulatory protections in practice.

We should not attempt to fit these new "square pegs" into our existing regulatory "round holes". Blockchain Australia's overarching recommendation is to implement a coordinated and graduated approach to ensuring that a fit-for-purpose and globally compatible

[2] S Wallis et al, 'Financial System Inquiry (1996) Final Report', Australian Government, 1997 [Chapter 5].

regulatory framework is developed that facilitates innovation and competition while enhancing consumer outcomes.

We seek a regulatory regime resulting from this consultation process which:

1. Creates clarity around a regulatory environment for Australian businesses aligned to the global playing field so Australian businesses do not get left behind;
2. Ensures Australian consumers are protected (See more fulsome comments in Q2)
3. Be able to discern via our laws the difference between new mediums of exchange, crypto securities, crypto derivatives etc so that financial products can be created with clarity and new forms of markets can flourish
4. Creates clear data and custody rules for digital assets.

Background	**Q2) What are your views on potential safeguards for consumers and investors?**

There are four areas that we believe government needs to focus on to improve safeguards for consumers:

1. ***Licensing of Exchanges***
   Exchanges are the main access point into the crypto world and need to be able to be relied upon by investors. To this end we have developed a code of conduct certification that a number of our exchanges have undertaken and we look forward to discussing it with you during the licensing consultation process.

   We consider the following as matters critical to licensing requirements.

   a. Fit and proper person requirements;

   b. Compliance system requirements;

   c. Internal Token selection committees or process for ensuring that information concerning products made available to Australians are considered and that the tokens are being sold in an appropriate manner;

   d. Custody requirements to ensure customer assets are safe and minimum capital requirements to facilitate an orderly wind down in the event of failure;

   e. Governance policies to reduce or manage conflicts of interest

   f. Contracts with customers under Australian Law with the Australian entity;

g. Reporting requirements of foreign parent companies back to Australian exchanges to ensure local management can demonstrate they are meeting their obligations.

2. ***Custody***

Over the past 6 months we have seen the collapse of several centralized exchanges and brokers servingAustralian customers which has resulted in the loss of crypto assets that those entities held on behalf of their customers.

In the absence of clear custody requirements, the manner in which many of these companies held assets created unnecessary risk or the risks in the business models were not readily apparent to users.

In particular custody arrangements for the assets held on behalf of consumers was either not clearly disclosed, was simply not followed or was embedded in terms and conditions that made it difficult for users to find and understand.

In the subsequent consultation for custody licensing we suggest that obligations around proof of reserve, co-mingling of assets and segregation of functions should be considered. Fundamentally, segregated custody of customer assets with a custodian and controls around assets being pledged to other parties will manage the primary risks which have manifested last year in the crypto-ecosystem and will have the greatest impact on safety for users of DCEs.

3. ***Promoters***

For organisations promoting and distributing products to Australians they need to be made aware of the existing provisions for misleading and deceptive conduct.

This issue extends beyond Blockchain and is increasingly difficult to administer with global players having access to Australian customers without having a local presence.

4. ***Consumer Education and Awareness***

Ongoing education of consumers, promoters and regulators needs to occur so they understand the space they are operating in and how to avoid scams. For instance the Thai SEC has established a "crypto academy" to help holders understand what

crypto-assets are, including the risks to which they become exposed by buying or holding crypto-assets. The US has also indicated its intention to develop Government-led consumer education programs.

Some of our members also have crypto training and learning academies that can be leveraged to provide education.

As a final point we believe there will be exponential protection offered to consumers to the extent that they fall within the financial services regime. Where crypto specific regulations or bespoke taxonomies are developed these should be developed with a view to tying into general consumer protection regulations to avoid duplication.

Background	***Q3)* Scams can be difficult for some consumers to identify.**

A) Are there solutions (e.g. disclosure, code auditing or other requirements) that could be applied to safeguard consumers that choose to use crypto assets?

Given the distributed nature of crypto assets, it is not possible for a Government to fully protect consumers from scams. If a consumer wishes to purchase a given token then they will find a way to do so even if this token is not offered by an Australian centralised crypto exchange.

While we believe existing consumer protection regulations are satisfactory to address those operating Crypto businesses in Australia our members have suggested the following would add to consumer safeguards.

1. auditing of smart contracts
2. appropriate custody regulation
3. minimum disclosure requirements for products available on australian exchanges

We are also conscious that scams are not restricted to crypto related services and funding for appropriate policing and enforcement is critical to ensure consumers have the maximum protection available.

B. What policy or regulatory levers could be used to ensure crypto token exchanges do not offer scam tokens or more broadly, prevent consumers from being exposed to scams involving crypto assets?

The Government should focus on ensuring a minimum set of operating standards for local exchanges, such as requiring exchanges to publish a set of token listing rules explaining the process they go through when deciding to list a token, and of course setting a standard for the custody and storage of customer assets.

Crypto exchange licensing should include alignment with the government frameworks for countering cyber crime and fraudulent activity, including obligations to cooperate with law enforcement agencies. These could include transaction monitoring and wallet screening to detect transactions going to addresses known to be associated with scams.

Token mapping: terminology and concepts	**Q4) The concept of 'exclusive use or control' of public data is a key distinguishing feature between crypto tokens/crypto networks and other data records**

A) How do you think the concepts could be used in a general definition of crypto token and crypto network for the purposes of future legislation?

For the purpose of having a general definition of 'crypto token' and 'crypto network', the concepts of 'exclusive use or control' is not necessary. Such concepts are more relevant to the application of the law to 'crypto token' or 'crypto network' (e.g. tort of conversion).

Adopting a similar approach to the UK Law Commission would be prudent because of the similarities between the two legal systems.

Having a general definition free from legal concepts will allow for the definition to be used consistently across legislation.

***B)* What are the benefits and disadvantages of adopting this approach to define crypto tokens and crypto networks?**

Use of 'exclusive use or control' as a definitional point risks being worked around by technology, for example by providing a nominal control or use in a quasi-shared environment or via a token lending arrangement. We submit that aligning definitions with international approaches has more benefits.

Token mapping: terminology and concepts	**Q5) This paper sets out some reasons for why a bespoke 'crypto asset' taxonomy may have minimal regulatory value.**

A) What are additional supporting reasons or alternative views on the value of a bespoke taxonomy?

There is little benefit in creating a bespoke crypto asset taxonomy for tokens or services that are financial products, the focus should be on ensuring the financial services laws provide a pathway for those financial products to be offered and traded.

A bespoke crypto asset taxonomy would have great value if it defined what crypto-assets are **not** financial products and aligned with internal approaches. This would address the heart of the uncertainty over tokens in the market and ensure that tokens that are not intended to be investment products first and foremost (even though they may have some of the features of financial products) are not regulated as financial products.

This would provide a level of certainty for consumers and a framework for those developing in the inherently global Web3 space. Given the evolution of this technology and associated business models, this definition would need to be revisited to avoid becoming outdated.

Consumer protection laws and AML/CTF laws (for DCEs) should still apply. An example of this approach would be a token system that operationalises a global technology service, or identity management service, or a system created for use by charities and cooperative community-based initiatives.

Case study: Filecoin (FIL)

As a case study, we believe Filecoin (FIL) would fall in this category (not a financial service, and needs a bespoke regulatory system). FIL is used to incentivise storage providers to make distributed data storage available across the global Filecoin network. Storage providers earn units of FIL when they commit storage capacity and provide a reliable storage service. The FIL token is sent by the users to pay for storage and retrieval of data, as well as for smart contract execution fees. This network stores data for some of the world's largest and most respected organisations including the Victor Chang Cardiac Research Institute, NASA, University of Southern California and the National Oceanic and Atmospheric Association.

These organisations work with extremely large and computationally heavy datasets. Filecoin provides these organisations with secure and decentralised cloud storage and associated computer processing power, and at a small fraction of the cost that they would ordinarily pay to traditional data centres such as AWS. It is also better for the environment, and Filecoin is currently seeking to have the entire global network of storage providers procuring 100% renewable energy by 2025.

The range of clients that benefit from the Filecoin network demonstrates the utility and benefits of the Filecoin system to Australia across a range of industry verticals. However, if users of the Filecoin storage network face friction in acquiring and using FIL, this would negatively impact on Australian businesses within the global Filecoin ecosystem, and would subsequently cause users to drive their business offshore, where they would be subject to fewer consumer protections, and where there may be greater AML/CTF risks.

It would be a suboptimal policy outcome if FIL marketplaces were to be inadvertently characterised as financial product exchanges on account of their listing of FIL. Similarly it would also be a poor outcome if customers were not able to obtain FIL in an efficient way, including via the web3 platforms where they are already native, but were instead driven to offshore platforms.

We note that, under the UK framework, a token such as FIL could be considered an "exchange token" similar to Ether (ETH) as the token is used primarily as a medium of exchange (in this case in exchange for storing and accessing files in a decentralised manner). Exchange tokens are not considered to be within the regulatory perimeter of the Financial Conduct Authority.

Alternatively, the Treasury may wish to consider an activities-based regulatory approach such as the regime recently implemented by Dubai's new Virtual Asset Regulatory Authority (VARA). This seeks to capture the activities of nearly all virtual asset businesses – regardless of the specific tokens in which they are dealing – and in doing so applies proportional and risk-adjusted rules to service providers and product issuers.

B) What are your views on the creation of a standalone regulatory framework that relies on a bespoke taxonomy?

As discussed in our response to question A) the majority of our members are not in favour of a standalone taxonomy covering tokens or services that are financial products but do support a separate taxonomy for non financial products that don't fall into the category of financial products.

However for crypto tokens or services that are financial products to operate in the current regulatory regime changes are required to address the following:

- Marketing licensing requirements for DCE's needs to reflect the nuances of the offering of decentralised products and services, i.e. continuous disclosure, price controls, etc.
- Custodial regulations need to be updated
- Definitional changes to financial product and facilities

C) In the absence of a bespoke taxonomy, what are your views on how to provide regulatory certainty to individuals and businesses using crypto networks and crypto assets in a non-financial manner?

We do not believe that a bespoke taxonomy is needed for financial products providing licensing and definitional changes are implemented as recommended in this submission.

A separate taxonomy is likely required for non-financial products that aligns with evolving global regulations.

Intermediated token systems	**Q6) Some intermediated crypto assets are 'backed' by existing items, goods, or assets. These crypto assets can be broadly described as 'wrapped' real world assets.**

A) Are reforms necessary to ensure a wrapped real-world asset gets the same regulatory treatment as that of the asset backing it? Why? What reforms are needed?

We do not believe additional protections are needed for real world wrapped assets, as long as the wrapping doesn't change the characteristics of the underlying asset, the 'wrapped' real world asset or digital twin should be treated the same as the underlying asset. (Refer to Hamilton Locke's submission for detailed explanation).

B) Are reforms necessary to ensure issuers of wrapped real-world assets can meet their obligations to redeem the relevant crypto tokens for the underlying good, product, or asset?

We recommend the following to ensure issuers of wrapped real-world assets can meet their redemption obligations:

Redemption Procedures: Issuers of real world asset tokens should be required to establish clear and transparent procedures for redeeming the tokens they issue. These procedures should include the terms and conditions for redemption, the time frame for redemption, and the process for verifying ownership of the tokens.

Compliance Requirements: Issuers of real world asset tokens should be required to comply with all applicable laws and regulations relevant to the underlying assets, including but not limited to, anti-money laundering (AML) and know-your-customer (KYC) regulations.

We believe the term backed or wrapped is not clear enough to cover all scenarios and needs to be modified. There are multiple types of tokens which might loosely meet this definition of wrapped real world assets and it is unclear what this is exactly intended to capture. Does it mean only physical assets or can it include intangible assets?

Intermediated token systems	**Q7) It can be difficult to identify the arrangements that constitute an intermediated token system.**

A) Should crypto asset service providers be required to ensure their users are able to access information that allows them to identify arrangements underpinning crypto tokens? How might this be achieved?

In cases where a token system is not captured by the financial product regulations, and where existing laws are not sufficient to allow the consumer to provide informed consent and benefit from appropriate safeguards, it may be prudent to ensure that consumers can access a minimum standard of transparent and up-to-date information regarding the crypto token they wish to interact with. We suggest that the Treasury review VARA's standalone rulebook on token issuance, which has been published online at www.vara.ae.

When considering disclosure requirements, consideration should be given to, but not limited to: the nature of the asset, the ownership structure, any relevant regulatory approvals, any contractual obligations that may affect the value of the asset, and the relevant terms and conditions for redemption.

Minimum requirements around information accessibility also need to be considered. These should include how users get updates and notifications that may affect the underlying real-world asset.

b) What are some other initiatives that crypto asset service providers could take to promote good consumer outcomes?

Education and Community Engagement are cornerstones of good crypto projects educating uses and creating engagement to build a community, some of the tools used by our members include:

- Whitepapers
- User-friendly guides
- Video tutorials
- Webinars

Intermediated token systems	**Q8) In addition to the functional perimeter, the Corporations Act lists specific products that are financial products. The inclusion of specific financial products is intended to both:** **(i) provide guidance on the functional perimeter;** **(ii) add products that do not fall within the general financial functions.**

A) Are there any kinds of intermediated crypto assets that ought to be specifically defined as financial products? Why?

Wrapped crypto assets are not necessarily financial products, it depends on the underlying asset, the rights, income streams, etc. These need to be assessed on a case-by-case basis by promoters and distributors of the products.

We recommend no additional inclusion for intermediated crypto assets in specific. ASIC existing guidelines are sufficient to determine whether a crypto-asset is a financial product based on three factors:

1. Legal rights attached to the crypto-asset – Does the recipient receive any ownership rights such as voting or distributions;

2. Function or purpose of the crypto-asset – Is its value linked to an off-platform asset, commodity or index;

3. How was the crypto-asset funded – Are investor funds pooled for a common financial benefit?

Considering the above factors, cypto-asset can fall within the definition of other traditional forms of financial products and services such as:

- Managed Investment Schemes
- Shares
- Derivatives
- Non-cash payment facilities

B) Are there any kinds of crypto asset services that ought to be specifically defined as financial products? Why?

There are crypto assets that meet the current definition of financial products and are financial products to all participants in the value chain. These are not entire classes or types of crypto assets, rather individual, specialised examples. Having these defined as financial products would provide certainty to those developing, promoting and investing into these assets.

Intermediated token systems	**Q9) Some regulatory frameworks in other jurisdictions have placed restrictions on the issuance of intermediated crypto assets to specific public crypto networks. What (if any) are appropriate measures for assessing the suitability of a specific public crypto network to host wrapped real world assets?**

We do not believe legislation is required to assess the suitability of public networks. There are a number of reasons for this:

- The scrutiny undertaken by the crypto community before supporting a new public network is significant and creators of intermediated crypto assets are very reluctant to build products on unproven platforms.
- Due diligence guidelines for service providers, safe storage of assets, consumer protections, disclosures, and other measures should be sufficient without legislatively restricting crypto tokens to specific networks (thereby creating a government-endorsed network, which is not desirable)
- Smart contracts will do what they are programmed to do – mathematically – and in a distributed network changing this programming is at least challenging and at best impossible.
- Regulators are not well placed to ascertain whether a specific public crypto network is appropriate for facilitating a particular crypto token. Regulators should not seek to be partners in entrepreneurial discovery.

Intermediated token systems	**Q10) Intermediated crypto assets involve crypto tokens linked to intangible property or other arrangements. Should there be limits, restrictions or frictions on the investment by consumers in relation to any arrangements not covered already by the financial services framework? Why?**
We believe that products that exist outside of the financial services framework do not require separate bespoke requirements that are not already included in other regulations.	
Public token systems	**Q11) Some jurisdictions have implemented regulatory frameworks that address the marketing and promotion of products within the crypto ecosystem (including network tokens and public smart contracts). Would a similar solution be suitable for Australia? If so, how might this be implemented?**
For those distributing financial products the existing rules for the marketing and promotion of financial products should be applied to the crypto ecosystem too. If any network or smart contract has its own tradable token it must fall under the existing rules. Existing regulations including schedule 2 of the Competition and Consumer Act 2010 (Cth) (formerly the Trade Practices Act 1974 (Cth)) would appear to provide appropriate consumer protection against those operating within Australia. Singapore attempted to address this by implementing an advertising ban for all regulated crypto companies. This has had the perverse effect of driving customers to unregulated offshore entities who are not subject to these bans. On the other hand, other jurisdictions such as the UK, Hong Kong and Dubai VARA have provided some guardrails for retail advertising (e.g. risk warnings and ensuring that advertisements are not false and misleading) to achieve the goal of consumer protection while continuing to allow promotion. In particular, the UK has proposed that retail marketing materials should comply with the existing financial promotion regime.	
Public token systems	**Q12) Smart contracts are commonly developed as 'free open-source software'. They are often published and republished by entities other than their original authors.**

A) What are the regulatory and policy levers available to encourage the development of smart contracts that comply with existing regulatory frameworks?

We don't think it is the role of the government to regulate open source software. It is the developers obligation to ensure they comply with the geographies they operate in and they will need to develop their smart contracts to ensure they do this.

In practice Open Source software is seldom used in isolation or in the exact form in which it is made available. Developers often use it as part of an overall solution. As such regulating open source smart contracts would not be efficient.

That said the government could:

- Work with those developing standards for Web3 for example OpenZepplin https://www.openzeppelin.com/ and then provide some form of review of projects and produce something similar to the guidance for travellers on higher/lower risk countries via smarttraveller.gov.au.
- Have regulatory agencies publish clear guidance and standards for the development of smart contracts that comply with existing regulations
- Create regulatory sandboxes that allow developers to test smart contracts against regulatory standards.

B) What are the regulatory and policy levers available to ensure smart contract applications comply with existing regulatory frameworks?

Similar to a)

Public token systems	**Q13) Some smart contract applications assist users to connect to smart contracts that implement a pawn-broker style of collateralised lending (i.e. only recourse in the event of default is the collateral).**

A) What are the key risk differences between smart-contract and conventional pawn-broker lending?

One key difference is that pawnbrokers generally accept second hand goods. Non recourse crypto lending only accepts crypto assets, and often only mainstream ones - refer:

- https://sdm.co/cryptocurrency-lending/ which only accepts BTC, ETH, LTC, USDC and BCH.
- https://heliolending.com

While crypto assets are volatile and their value can change a lot in a small space of time, they are more akin to securities lending or cash as collateral than a pawnbroking arrangement. However, at present it isn't regulated as securities lending because cryptocurrency (generally) does not meet the definition of securities.

The advantages of smart-contract-based collateralized lending are greater transparency, efficiency, and security. The smart contracts are transparent as the terms of the loan, including interest rates, collateral requirements, and repayment terms, are visible to all parties. The security of smart contracts is assured by the blockchain network, reducing the risk of fraud or manipulation compared to conventional pawnbroker lending.

b) Is there quantifiable data on the consumer outcomes in conventional pawn-broker lending compared with user outcomes for analogous services provided through smart contract applications?

This data is not available to us

Public token systems	**Q14) Some smart contract applications assist users to connect to automated market makers (AMM).**

A) What are the key differences in risk between using an AMM and using the services of a crypto asset exchange?

There appears to be some confusion in the role of AMM's in this question.

- AMM's as it relates to crypto markets function more as a 'technical layer' that interacts with a crypto asset exchange – the two are not exclusive from each other.
- The purpose of an AMM is to deploy a trade strategy within specified markets (crypto asset exchanges), with a provided amount of capital – this is known as the 'Liquidity Pool' (LP).
- While the most common strategy is the 'constant product formula', other AMM formulas include constant sum formula, constant product with price exponent, etc. These formulas aim to achieve different objectives, such as reducing price slippage, improving capital efficiency, or enabling more complex trading strategies.
- As such, the strategy deployed within the AMM contract is set by the 'contract owner'. The contract owner in this case is the user who is hosting the contract – this is not necessarily the creator of the contract.

- Further, a contract may have the functionality to handle 3rd party crypto assets received to its LP, to facilitate larger volume trades through its increased market depth.

Revisiting the purpose of the question, it could be assessed either one of two ways;

- What are the key differences in risk between automatic or 'algorithmic' trading (i.e: through an AMM contract) and manual (or human) trading (placing an order directly onto a crypto exchange)?

    - Execution risk: Automated trading eliminates manual errors but can experience technical issues.
    - Market risk: Automated trading can respond quickly to market conditions, but may not react to unexpected events. Manual trading can adjust in real-time.
    - Liquidity risk: Automated trading may not execute trades at the desired price due to liquidity shortages. Manual trading can use different strategies to reduce this risk.
    - Technical risk: Automated trading is subject to software bugs or vulnerabilities. Manual trading has more control over the process and can use different tools to reduce technical risk.

- What are the key risks in utilising an open-source liquidity pool (such as Uniswap, Sushiswap, etc.)?

    - Smart contract risk: Smart contracts are vulnerable to technical bugs and exploitation by malicious actors.
    - Impermanent loss: Adding liquidity to a pool can result in temporary losses due to asset value changes.
    - Liquidity risk: Insufficient liquidity in the pool can result in high slippage and price volatility.
    - Hacking risk: Liquidity pools are vulnerable to hacking and cyber attacks, which can result in loss of assets or other malicious actions.

B) Is there quantifiable data on consumer outcomes in trading on conventional crypto asset exchanges compared with user outcomes in trading on AMMs?

Quantifiable data of this specific nature does not exist.

However, a more general study to refer to in this case would be Automated Market Making: Theory and Practice by Abraham Othman (May 15, 2012)

- AMMs outperformed manual trading strategies in profitability and risk-adjusted returns.
- The report notes that the results may be influenced by the market conditions and assets studied and that other factors may affect manual trading versus AMM trading.

Other sources of information.

- SoK: Decentralized Exchanges (DEX) with Automated Market Maker (AMM) Protocols (Dec 2022): https://arxiv.org/abs/2103.12732
- Impermanent Loss and Price Discovery: Are Automated Market Makers a Sustainable Exchange Model? (Nov 2021): https://www.uts.edu.au/sites/default/files/2022-01/2021_Honours_Thesis%20CHOONG%2C%20Jonathan.pdf