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Crypto Policy Unit  
Financial System Division  
The Treasury  
Langton Crescent  
PARKES ACT 2600

Dear Sir/Madam

## **Submission on Token Mapping Consultation Paper**

MinterEllison appreciates the opportunity to make a submission in relation to the Token Mapping Consultation Paper released by Treasury on 3 February 2023 (**Consultation Paper**).

MinterEllison is a leading Australian Law firm. We advise major financial institutions, fintechs, crypto asset service providers, token issuers and other financial intermediaries in Australia and overseas.

The views expressed in this submission are ours alone and do not necessarily reflect the views of our clients.

We support regulation of the crypto ecosystem that is agile, fit for purpose, protects consumers and encourages innovation. We also believe that a well-regulated crypto market in Australia has the potential to promote Australia as a global hub for the fintech sector.

## **Overview of our submission**

While we appreciate the efforts made in the Consultation Paper regarding the proposed 'token, token system and function framework', we recommend that a more globally aligned approach to defining crypto assets be adopted in Australia. We appreciate that the focus on token systems is intended to capture the key element of the token ecosystem, but we are concerned that there may not always be an entity that can be regulated as a token system (e.g. where it is a Public Token System). Rather than focusing on token systems, we suggest defining crypto (or digital) assets and focusing on the services which should be regulated in connection with them, drawing on common key concepts from other jurisdictions.

As proposed in our previous submission to Treasury on CASSPrs dated 27 May 2022, we recommend using the definition provided by the Financial Stability Board (FSB) and OECD, which defines crypto assets as 'a type of private digital asset that depends primarily on cryptography and distributed ledger or similar technology'.<sup>1</sup> We believe that this definition better aligns with international standards and avoids confusion that arises by defining token systems as the regulated product. This approach is also consistent with the guidance provided by ASIC, which recommends assessing crypto tokens, not token systems, to determine if they are financial products.

Additionally, if crypto assets are recognised as property (see our response to Question 4), crypto tokens will likely be recognised as falling under this category of property. If so, it would make more sense for the crypto token rather than the token system to be the regulated financial product.

Lastly, we recommend further categorising crypto assets into the following categories: means of exchange, investment, utility and hybrid (see our response to Question 5). This approach is consistent

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<sup>1</sup> Financial Stability Board, 'Regulation, Supervision and Oversight of 'Global Stablecoin' Arrangements' (Report 2020) 5.

with other global authorities and will support a more comprehensive regulatory framework for token activities.

Our detailed submissions in response to the proposals and questions raised in the Consultation Paper are set out below.

**1. Question 1: What do you think the role of Government should be in the regulation of the crypto ecosystem?**

- 1.1 We support the Government taking an active role in regulating the crypto ecosystem, noting that the Government will need to strike the right balance so that regulatory reform does not disincentivise technological developments in the Australian market.

*Intermediated Token Systems*

- 1.2 We agree that regulation of Intermediated Token Systems can to some extent be regulated under the existing financial services regulatory framework. The existing framework has reduced the level of consumer harm in traditional financial markets and we submit that a modified version of the current framework should be appropriate to regulate Intermediated Token Systems. The Government's role within this area should be to reform existing laws to provide clarity on the types of crypto assets that attract regulation, which includes regulating crypto assets that may not currently be regulated (see also our response to Question 5 regarding the introduction of a new category of property). This will assist to make Australia a more transparent jurisdiction for crypto businesses and encourage new market entrants.

*Public Token Systems*

- 1.3 We understand the reference to Public Token Systems to be a reference to Decentralised Finance or DeFi, which operates very differently to Intermediated Token Systems as DeFi systems involve functions being carried out by a crypto network directly without an intermediary. In relation to Public Token Systems, our view is that Government will need to approach regulation carefully to avoid disincentivising technological advancement in Australia.
- 1.4 Regulation of Public Token Systems may involve regulating certain aspects of these systems. We suggest that those who maintain control or sufficient influence over Public Token Systems should be regulated by requiring them to either hold an AFS licence or be authorised by an AFS licensee.

**2. Question 2: What are your views on potential safeguards for consumers and investors?**

- 2.1 In our view there are a number of potential safeguards that the Government could implement. We recommend the Government carefully consider whether and how each of these safeguards is implemented to ensure that innovation and economic advancement are not disincentivised. An appropriately selected combination of safeguards should be able to effectively minimise consumer and investor harm.

*Intermediated Token Systems*

- 2.2 **Licensing:** requiring issuers (where identifiable) and intermediaries of Intermediated Token Systems to hold an Australian financial services (**AFS**) licence or be appointed as a corporate authorised representative (**CAR**) of a licensee with appropriate authorisations. We note that Hong Kong has established a licensing framework for 'virtual asset trading platforms'.<sup>2</sup> However, our view is that regulation may need to extend further than trading platforms / exchanges to offer appropriate consumer protections. Bringing these entities within the AFS licensing regime would mean that the safeguards in place within the existing licensing regime (e.g. demonstrating competency through responsible managers, breach reporting, design and distribution obligations, dispute resolution procedures etc) would also apply.
- 2.3 **Regulation of promotion of crypto assets:** requiring the promotion of Intermediated Token Systems relating to crypto assets regulated as financial products to be undertaken by a AFS

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<sup>2</sup> See page 10 of the Securities and Futures Commission Consultation Paper on the Proposed Regulatory Requirements for Virtual Asset Trading Platform Operators Licensed by the Securities and Futures Commission dated 20 February 2023.

licensee or representative (unless a financial service/product is not involved).<sup>3</sup> This would ensure that entities which promote crypto assets and systems will need to meet existing licensee, disclosure, conduct, design and distribution obligations and training requirements applicable under the AFS regime.

- 2.4 Regulation of fiat-backed stablecoins: imposing additional requirements on promoters, intermediaries and issuers (where identifiable) of fiat-backed stablecoins, to assist with ensuring that the stablecoin is in fact backed. Examples of possible requirements include:
- (a) regulation of fiat-backed stablecoins by the Reserve Bank of Australia or the Australian Prudential Regulation Authority (APRA);
  - (b) requiring fiat-backed stablecoins to be backed 1:1 with the relevant fiat, establishing 'criteria' for stablecoins to meet to be a stablecoin and requiring intermediaries to conduct due diligence and ensure any applicable criteria is met.<sup>4</sup> This could be combined with regular reporting requirements to APRA to ensure stablecoins remain stable. Restrictions could also be imposed on the issuer of a stablecoin in relation to moving fiat currency out of the relevant account in which it is held (i.e. evidence is required to reduce the fiat reserve being held). Please see also our response to Question 6; and/or
  - (c) restrictions on the usage of the term 'stablecoin', similar to other restricted terms such as 'bank', 'stockbroker' and 'financial adviser'.
- 2.5 **Regulation of crypto asset lending services:** clarification that the *National Consumer Credit Protection Act 2009* (Cth) applies to crypto asset lending to consumers and small businesses. This will ensure that the standard consumer credit protections (e.g. responsible lending, disclosure obligations etc) apply to crypto asset lending and require these service providers to hold an Australian Credit Licence (ACL).
- 2.6 **Custody:** requiring custodians to have adequate systems, controls and governance arrangements to minimise the risk of misuse or loss to investors' crypto assets and arrangements to safeguard investor's rights to crypto assets in the event of insolvency of the custodian.<sup>5</sup> In addition, custodians could also be regulated by APRA, particularly in relation to capital adequacy, risk management and auditing. A similar approach is being taken in Hong Kong, where it has been proposed that client money and client crypto assets should be held on trust through a wholly-owned subsidiary and not more than 2% of client crypto assets should be stored in a hot wallet (to lower the risk of loss of assets through hacking, phishing etc).<sup>6</sup>
- 2.7 **Compensation scheme of last resort (CSLR):** implementation of a compensation scheme which requires crypto industry participants to fund a compensation scheme controlled by the Government, to compensate consumers as a last resort in the case of scams or the failure of a participant.<sup>7</sup> We note that Hong Kong has also suggested ongoing requirements to monitor the value of clients' crypto assets and notify the regulator where the value is higher than the value of the compensation scheme.<sup>8</sup>
- 2.8 **Insurance:** any requirement for regulated service providers to hold insurance should be considered in light of any practical difficulties that the industry faces with obtaining insurance with commercially sustainable premiums. We suggest further data be obtained about the availability of insurance and its affordability before imposing insurance requirements on regulated service providers.

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<sup>3</sup> A similar approach has been suggested in the UK. See Table 5.A. of the Consultation paper: Future financial services regulatory regime for cryptoassets.  
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1133404/TR\\_Privacy\\_edits\\_Future\\_financial\\_services\\_regulatory\\_regime\\_for\\_cryptoassets\\_vP.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1133404/TR_Privacy_edits_Future_financial_services_regulatory_regime_for_cryptoassets_vP.pdf)

<sup>4</sup> A similar approach has been suggested in Hong Kong, including proposed token admission criteria. See pages 11 & 14 of the Securities and Futures Commission Consultation Paper on the Proposed Regulatory Requirements for Virtual Asset Trading Platform Operators Licensed by the Securities and Futures Commission dated 20 February 2023.

<sup>5</sup> A similar approach has been suggested in the UK. See Chapter 8 of the Consultation paper: Future financial services regulatory regime for cryptoassets.

<sup>6</sup> See page 10 of the Securities and Futures Commission Consultation Paper on the Proposed Regulatory Requirements for Virtual Asset Trading Platform Operators Licensed by the Securities and Futures Commission dated 20 February 2023.

<sup>7</sup> Whilst the UK Government does not propose for their Financial Services Compensation Scheme to protect consumer's if a crypto asset firm fails, it may still be appropriate to protect Australian consumers. See Paragraph 2.5 of the Consultation paper: Future financial services regulatory regime for crypto assets.

<sup>8</sup> As above.

2.9 **Consumer qualification:** requiring Public Token Systems to conduct knowledge assessments of consumers before allowing them to deal with a crypto asset. Where the consumer fails, then requiring the system to provide training before allowing the consumer to deal with the crypto asset. A similar approach has been taken in Hong Kong, but only in relation to crypto asset trading platforms.<sup>9</sup> Hong Kong has also suggested that platforms assess a client's risk tolerance and risk profile to assess whether the crypto asset is suitable for the consumer.<sup>10</sup> However, we believe that a better approach would be to subject intermediaries and those who control Public Token Systems to the Design and Distribution Obligations regime so they are required to determine the types of customers for which the product is suitable rather than having to assess suitability testing at an individual customer level.

2.10 **Limitation of consumer base:** for certain crypto asset products such as potentially algorithmic stablecoins, limiting access to sophisticated investors to minimise consumer harm (e.g. wholesale clients and professional investors within the meaning of the Corporations Act).

3. **Question 3: 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?**

**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?**

3.1 The safeguards we have contemplated in response to Question 2 would reduce the risks of scams and can be used to help ensure crypto token exchanges do not offer scam tokens. It may also be appropriate to impose an obligation on responsible licensees to perform some level of due diligence or assurance on token issuers.

3.2 While well-regulated systems and educated consumers will help reduce scamming to some extent, it is unrealistic to expect it can be stopped in its entirety. We anticipate that regulators such as the ACCC and ASIC will continue to have a role in identifying and publicising risks of scams and they need to be properly resourced so they can identify and stop scams at an early stage.

4. **Question 4: 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?**

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

4.1 As identified in the Consultation Paper, there is currently no universal definition of crypto tokens, crypto networks or crypto assets. That being said, there is increasing consensus on key elements of terminology used in the crypto ecosystem. While the introduction of the concept of 'exclusive use or control' as a distinguishing feature of crypto tokens is a step in the right direction, we are concerned that there is a risk that the requirement for exclusivity may mean the definition is not future-proof. It is entirely possible for token issuers or smart contract operators to retain the right to deal with a token held by a user in certain situations (e.g. where the user uses the token for money laundering against the token issuer or smart contract operator's policies), which would mean that it would be difficult to say that the token in that case had 'exclusive use or control'. Given the rise in self-policing within the crypto ecosystem, it is very likely that we will see an increase in this type of development.

<sup>9</sup> See page 13 of the Securities and Futures Commission Consultation Paper on the Proposed Regulatory Requirements for Virtual Asset Trading Platform Operators Licensed by the Securities and Futures Commission dated 20 February 2023.

<sup>10</sup> As above.

- 4.2 The UNIDROIT Digital Assets and Private Law Working Group<sup>11</sup> and the Uniform Law Commission's Uniform Commercial Code and Emerging Technologies Committee,<sup>12</sup> uses a definition of control which requires the token to confer on a person:
- (a) the exclusive ability to change the control of the digital asset to another person;
  - (b) the exclusive ability to prevent others from obtaining substantially all of the benefit from the digital asset; and
  - (c) the ability to obtain substantially all the benefit from the digital asset.
- 4.3 We recommend adoption of the above definition to provide clarity to the concept of 'exclusive use or control' with appropriate modifications to recognise that this 'exclusivity' is subject to any overriding rights that another entity may have in particular circumstances. This will align the definition of 'exclusive use or control' more closely with the concept of 'rivalrousness' that the UK is proposing to introduce.
- 4.4 Another pressing issue is whether crypto assets constitute property. Crypto assets should attract property rights in order to ensure consumer protection – these property rights will allow legal systems to protect property owners (i.e. consumers) and recognise their rights in relation to these assets. As noted by the UK Law Commission, 'legal property rights are special because they can be asserted against the world at large'.<sup>13</sup> The question of whether crypto assets can be viewed as property is uncertain in Australian law. Annexure 1 (Legal and regulatory framework) of the Consultation Paper explains the concept of personal versus real property and concludes that a crypto token does not fall into either of these buckets.
- 4.5 In New Zealand, the landmark case of *Ruscoe v Cryptopia*<sup>14</sup> considered whether cryptocurrency was capable of being 'property' under the *Companies Act 1993* (NZ), using Lord Wilberforce's test in *Ainsworth*<sup>15</sup>. The Ainsworth test requires property to be 'definable, identifiable by third parties, capable in its nature of assumption by third parties, and have some degree of permanence or stability.' Glendall J held that all of these criteria were satisfied, and that a crypto token could be considered intangible personal property.
- 4.6 While there is a growing amount of international case law on whether crypto assets can be considered property, the issue will remain uncertain until it is conclusively determined in a superior court. As it is unknown when (or if) this will occur, we recommend that this issue be addressed by statute by providing that crypto assets are property and setting out any particular rights or remedies relevant to crypto assets. This will reduce uncertainty for both consumers and industry, promoting an innovative financial sector in Australia.
- 5. Question 5: 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?**
  - b) What are your views on the creation of a standalone regulatory framework that relies on a bespoke taxonomy?**
  - 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?**
- 5.1 As proposed in our submission to Treasury dated 27 May 2022, we believe that there may be utility in distinguishing between the categories of crypto assets we have identified in the diagram below (which is based on the classification diagram by the Bank for International Settlements<sup>16</sup> (with some differences), and aligns with the four categories proposed by the European Securities

<sup>11</sup> See UNIDROIT Digital Assets and Private Law Working Group, Study LXXXII – W.G.5 – Doc. 3: Master Copy of the Principles, plus Commentary (with Questions) p 7: <https://www.unidroit.org/wp-content/uploads/2022/03/W.G.5.-Doc.-3-Master-Copy-Principles-plus-Comments-with-Questions.pdf>.

<sup>12</sup> See Uniform Law Commission, Draft - Uniform Commercial Code and Emerging Technologies - 2022 May 16-18 Meeting p 3.

<sup>13</sup> Law Commission (UK), 'Digital Assets: Consultation paper', 2022, page 92.

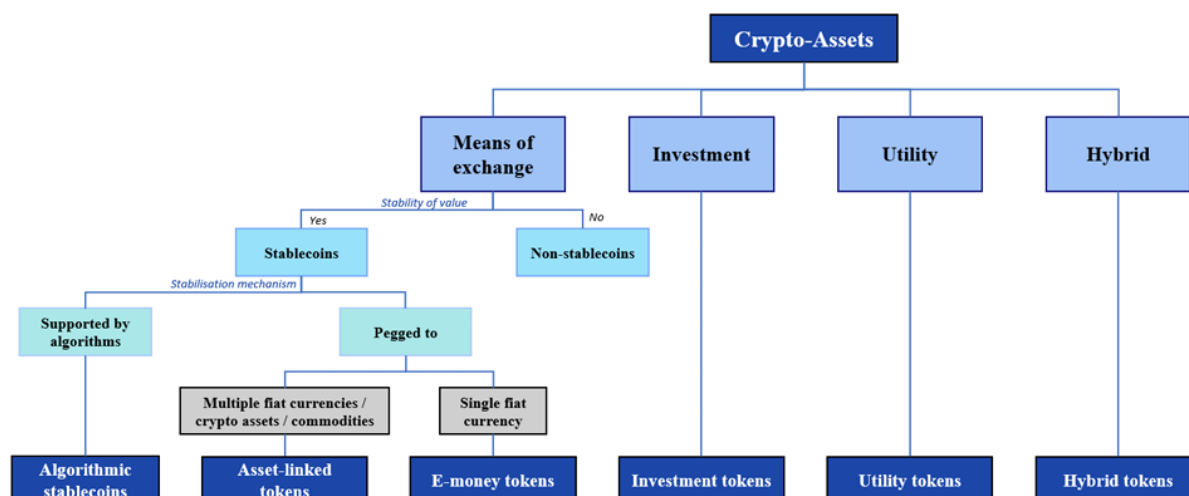
<sup>14</sup> *Ruscoe v Cryptopia* [2020] NZHC 728.

<sup>15</sup> *Ainsworth v Criminal Justice Commission* [1992] HCA 10.

<sup>16</sup> Bank for International Settlements, 'Supervising crypto assets for anti-money laundering' (Report, 2021) 6.

and Markets Agency<sup>17</sup>). We believe this approach would help identify different types of crypto assets and facilitate appropriate regulation of each type. It would also be consistent with regulation in other jurisdictions such as Europe and Hong Kong.

#### Classification of crypto assets



6. **Question 6: 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?
- 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?
- 6.1 In responding to this question, we have focused on asset-backed or collateralised stablecoins. Stablecoins maintain a peg against another asset and can either be asset-backed or algorithmically calculated.
- 6.2 We do not consider that any reforms are necessary to ensure a wrapped real-world asset receives the same regulatory treatment as that of the asset backing it. We understand the wrapping of a real-world asset to form a financial derivative. As a derivative is a financial product regulated by the Corporations Act, there are already regulatory protections and considerations in place in relation to derivatives. This is consistent with our proposal in the introduction that the appropriate focus of regulation should be on crypto tokens rather than token systems.
- 6.3 The US is one of the most progressed jurisdictions in this regard. There is currently draft legislation to regulate stablecoins in the form of the bipartisan *Lummis-Gillibrand Responsible Financial Innovation Act (RFIA)*. The RFIA proposes to define and create requirements for payment stablecoins that would require the issuers of these stablecoins to 'maintain high-quality liquid assets...equal to not less than 100 percent of the face amount'<sup>18</sup> of the issued stablecoin's value. 'High-quality' assets are defined as US currency, bonds and other cash-like instruments.
- 6.4 On a state level, the New York Department of Financial Services (DFS) issued its [Guidance on the Issuance of U.S. Dollar-Backed Stablecoins](#) that focuses on the requirements of redeemability, reserves, and attestations that will generally apply to stablecoins backed by the U.S. dollar that are issued under DFS oversight.
- 6.5 We recommend that Australia adopt the DFS' three requirements – the most important being redeemability. There should be requirements for wrapped asset issuers to confer to holders the right of timely redemption of the stablecoin. The DFS has defined 'timely' as occurring not more than two business days after the redemption order, noting that exceptions to this do apply.

<sup>17</sup> European Securities and Markets Authority, 'Advice: Initial Coin Offerings and Crypto-Assets' (ESMA50-157-1391, 2019) 5.

<sup>18</sup> Lummis-Gillibrand Responsible Financial Innovation Act, SIL 22785, s601.

Consistent with the RFIA and the DFS requirements, we recommend that wrapped assets in Australia should be fully backed by reserve liquid assets, that constitutes cash-like instruments.

- 6.6 We also recommend that issuers should be required to manage liquidity risks to ensure that the market value of the reserve assets is at least equal to the value of stablecoins on issue at the end of each business day. Lastly, regular audits should be required to be conducted and monthly reports provided. These reports should be made public and include details regarding the reserve (i.e. its value and make up) and whether the reserve is adequate to fully back the wrapped assets.
- 6.7 If algorithmic stablecoins are permitted to be distributed in Australia, the above requirements (particularly relating to reserves) may not be appropriate. Given the significant risks associated with algorithmic stablecoins as demonstrated by the TerraUSD collapse, there needs to be careful regulation of these types of stablecoins. This could involve requiring an external party, such as the regulator or an independent and qualified expert to assess and approve the algorithms used for these stablecoins, or restricting the pool of consumers with access to algorithmic stablecoins to only wholesale/sophisticated clients.

**7. Question 7: 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?**

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

- 7.1 If crypto tokens are regulated by the Corporations Act, it typically means that a Product Disclosure Statement (PDS) or prospectus will need to be issued by the token issuer, and relevant disclosures such as these will need to be made. We do not believe any further requirements would ordinary be required (but note our response to Question 10 below).

**8. Question 8: 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?**

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

- 8.1 Based on the categories that we have introduced in Question 5, we consider that crypto assets that fall under the categories of 'means of exchange' and 'investment' should be defined as financial products.
- 8.2 We do not consider that any crypto asset services should be specifically defined as financial products.

**9. Question 9: 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?**

- 9.1 We do not recommend placing any restrictions on the issuance of intermediated crypto assets to specific public crypto networks (i.e. Intermediated Token Systems). We submit that this is contrary to the purpose of blockchain and digitalisation, and is not technology-neutral. It would negatively impact Australia's innovation and technological disruption and would not necessarily increase consumer protection.



- 9.2 Instead, consistent with our responses above, intermediaries should be the focus of regulation. Intermediaries who promote crypto assets to consumers have a responsibility to ensure that due diligence is conducted such that the public crypto network being utilised functions as intended. Currently, AFS licensees have obligations to do all things necessary to ensure financial services are provided efficiently, honestly and fairly and to have adequate risk management systems and resources. These obligations should ensure licensed intermediaries take appropriate steps to ensure suitability of public crypto networks and crypto assets they promote, but it may be appropriate to impose a more specific obligation for such licensees to conduct appropriate due diligence or to otherwise be satisfied of suitability. Furthermore, it may be appropriate to extend the Design and Distribution Obligations Regime to such intermediaries to the extent that they are not issuers and would not otherwise be caught. As suggested below, it may be appropriate for ASIC to have the power to impose such requirements where appropriate (and subject to appropriate consultation).
- 10. Question 10: 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?**
- 10.1 Crypto assets captured by the financial services framework will be subject to existing regulatory requirements, including relating to disclosure, advice, conflicted remuneration and design and distribution. We expect that these obligations would be generally appropriate for such crypto assets, however as noted above, it may be appropriate for additional restrictions and requirements to apply and ASIC should have the power to impose them where appropriate (and subject to appropriate consultation).
- 10.2 Additional requirements may need to be introduced to address risks to consumers in relation to crypto assets not captured by the financial services regime and it may be appropriate to give the ACCC an equivalent power in such cases.
- 11. Question 11: 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?**
- 11.1 The Corporations and ASIC Acts already regulate marketing and promotion of crypto assets and services which are financial products or services. Additionally, the Australian Consumer Law applies where crypto assets or services do not constitute financial products or services. That being said, there needs to be careful consideration as to whether any modifications to the requirements applying under these regimes are necessary to ensure appropriate consumer protection, for example by requiring a white paper to be published for all crypto assets.
- 12. Question 12: 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?**
- b) What are the regulatory and policy levers available to ensure smart contract applications comply with existing regulatory frameworks?**
- 12.1 There is no regulatory framework currently in Australia which specifically governs the development of open source software – and, in our view, nor should there be. Open source software, as defined by the Open Source Initiative,<sup>19</sup> is typically developed and maintained by volunteers who form collaborative communities. Regulating the development of open source software and assigning liability to open source developers would go against the purpose of those open source communities. It could stifle innovation and potentially lead to an 'exodus' of software developers. It would certainly not make Australia an attractive place to undertake these activities.

<sup>19</sup> [The Open Source Definition – Open Source Initiative](#)



- 12.2 By way of an example, if Australia were to assign liability to open source developers for the use of the software which they develop (especially if that use is not contemplated by the developers), then it is possible developers may start imposing limitations on the use of the software within Australia. This would have material adverse consequences on the development and use of software here, including because virtually all software providers incorporate open source software in their products. Additionally, since open source projects are often contributed to by various volunteers from many countries and regions, and not all open source licences require amendments to be recorded in the code, it may not always be a simple task to identify all developers who contribute to the initial project, or those who make changes to the code once it has been published.
- 12.3 Some examples of levers which would encourage the development of smart contracts (regardless of whether or not they are developed using open source software) that comply with regulatory frameworks are:
- (a) **Smart contract code audits:** Regulatory bodies can require audits of smart contracts of Intermediated Token Systems to ensure that they meet the necessary legal and regulatory standards.
  - (b) **KYC/AML compliance:** Smart contracts will still need to comply with Australia's KYC and AML requirements where they involve the provision of designated services.
  - (c) **Data protection and privacy regulations:** Some smart contracts may process and store personal data and those smart contracts that affect Australian residents should be required to comply with Australian privacy and cyber laws.
  - (d) **Smart contract design standards:** Regulators can establish design standards for smart contracts to ensure that they comply with legal requirements. These standards could include guidelines for contract formation, dispute resolution, and contract termination.
  - (e) **Contract validation and approval:** In certain limited high risk situations, it may be appropriate for the relevant regulator to require smart contracts to be reviewed and approved before they can be deployed on a blockchain platform. As this would act as a significant brake on innovation, we expect that it would only rarely if ever apply.
- 12.4 The compliance of smart contracts (regardless of whether or not they are developed using open source software) should be regulated using existing regulatory frameworks according to the purpose for which the smart contract is used, including contract and property law as well as financial services regulation. This method is consistent with the token mapping approach espoused by the Consultation Paper.
13. **Question 13: 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?**
  - 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?**
- 13.1 There are several key risk differences between smart-contract and conventional pawn-broker lending:
- (a) **Counterparty Risk:** In a smart contract-based collateralized lending arrangement, there is no human interaction between the lender and borrower. Instead, the terms of the loan are encoded in a computer program that executes automatically. This means that there is no counterparty risk, i.e., the risk that the pawnbroker or lender defaults on the loan or fails to return the collateral. In a conventional pawn-broker lending arrangement, there is always a counterparty risk.
  - (b) **Transparency:** Smart-contract-based lending arrangements are transparent because the terms of the loan and the collateral are recorded on the blockchain, which is a public

ledger. This makes it easier for regulators to monitor and regulate these arrangements. In contrast, conventional pawn-broker lending arrangements may not be as transparent.

- (c) **Automation:** Smart-contract-based lending arrangements are automated, which means that they are executed automatically without the need for human intervention. This can reduce the risk of errors and fraud, as the terms of the loan are enforced automatically by the program. Conventional pawn-broker lending arrangements may be more susceptible to human errors and fraud.
- (d) **Immutable:** Smart-contract-based lending arrangements are immutable, meaning that once the terms of the loan are encoded in the program and recorded on the blockchain, they cannot be changed. This ensures that the terms of the loan are enforced exactly as specified in the program, which could also create hardship issues for borrowers. In contrast, conventional pawn-broker lending arrangements may be subject to renegotiation or dispute.
- (e) **Market risk:** Smart-contract-based collateralized lending arrangements may be subject to market risk, i.e., the risk that the value of the collateral may fluctuate. In a conventional pawn-broker lending arrangement, the pawnbroker may be able to adjust the terms of the loan or the value of the collateral in response to market changes. This can either be a benefit or disadvantage.

13.2 Overall, smart-contract-based collateralized lending arrangements can offer advantages over conventional pawn-broker lending arrangements, including reduced counterparty risk, increased transparency, automation, immutability, and potentially lower costs. However, they may be subject to market risk and require specialized technical expertise to set up and manage.

13.3 We are not aware of much quantifiable data on the consumer outcomes in conventional pawn-broker lending compared with user outcomes for analogous services provided through smart contract applications, as the use of smart contracts for collateralized lending is a relatively new phenomenon.

13.4 However, we do note that some studies have suggested that smart-contract-based collateralized lending may offer advantages over conventional pawn-broker lending in terms of transparency, cost-effectiveness, and access to credit. For example, a 2018 study by the World Bank found that blockchain-based lending platforms could reduce the cost of lending by up to 40% and could increase access to credit for small and medium-sized enterprises (SMEs) in emerging markets.<sup>20</sup>

#### 14. **Question 14: 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?**

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

14.1 There are several key differences in risk between using an AMM and using the services of a crypto asset exchange:

- (a) **Counterparty Risk:** When using an AMM, there is typically no counterparty risk, as trades are executed automatically using an algorithm. In contrast, when using a crypto asset exchange, there is counterparty risk, as trades are executed between buyers and sellers on the exchange.
- (b) **Liquidity Risk:** AMMs typically have lower liquidity than centralized exchanges, which can lead to slippage and higher transaction costs for large trades. In contrast, centralized exchanges generally have higher liquidity, which can make it easier to execute large trades.
- (c) **Price Volatility Risk:** Because of the automated nature of AMMs, the prices of assets traded on AMMs can be more volatile than those on centralized exchanges. This is

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<sup>20</sup> World Bank, 'Banking on Blockchain: Charting the Progress of Distributed Ledger Technology in Financial Services' (2018).

because the price of an asset on an AMM is determined by the underlying algorithm, which can be more susceptible to sudden changes in market conditions or trading volumes.

- (d) **Security Risk:** Centralized exchanges are more susceptible to security risks, such as hacking or insider trading, because they are run by a centralized authority. In contrast, AMMs are decentralized and run on a blockchain, which makes them less susceptible to security risks.

- 14.2 It is difficult to compare the outcomes of trading on AMMs with those on centralized exchanges, as the two platforms have different characteristics and serve different types of traders. Moreover, the outcomes may vary depending on the specific platform, the assets being traded, and the traders' investment strategies.

Please contact us if you have any questions about any of our submissions. We have a strong commitment to working with Treasury and the industry to establish a regulatory framework for the crypto ecosystem that is fit for purpose and innovation and consumer focused. We would welcome the opportunity to meet with Treasury to discuss our submission or other matters relating to token mapping and the regulation of crypto assets in Australia.