

Article Information

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Navigating the Australian Token Mapping Consultation

On 3 February, the Australian Treasury released the [Token Mapping Consultation Paper \(Consultation Paper or the Paper\)](#) which aims to build a shared understanding of crypto-assets in Australia. The Treasurer, Jim Chalmers, [previously](#) announced this ‘token mapping exercise’ as a foundational step in the Government’s promised reform agenda to develop an Australian regulatory framework for crypto-assets. The Paper is intended to assist regulators and policy-makers in formulating appropriate regulation for the crypto-asset industry.

The Senate Committee on Australia as a Technology and Financial Centre recommended a token mapping exercise to identify the best way to define and characterise the various types of digital asset tokens in Australia. The Paper suggests that a bespoke ‘crypto asset taxonomy’ may have minimal regulatory value. Instead, the Paper sets out to define some of the key concepts relating to blockchain and crypto technology and seeks responses to consultation questions on key policy issues which may inform the development of legislation.

The Paper adopts a broad concept called the “functional perimeter” as the basis for Australia’s financial services regulatory regime, which differs from the concept of the “regulatory perimeter” adopted by the UK Treasury, which is [currently undertaking](#) its own consultation on crypto-assets and has conducted significant work in the space to date. The concept of the functional perimeter is tied to the general definition of a financial product in the *Corporations Act 2001 (Cth)* (the **Corporations Act**), being a facility through which a person makes a financial investment, manages financial risk or makes non-cash payments. The Paper seeks participant’s views on the types of crypto assets and crypto asset services which should specifically be defined as financial products and, therefore, within the functional perimeter.

Unlike the UK Treasury’s recently published consultation paper on the [Future financial services regime for cryptoassets](#), the Australian Government has not indicated in the Paper any policy goal of Australia seeking to become a world leader in crypto-assets in the way the UK is seeking to do. Rather the Paper refers to regulation as a means of preventing a loss of confidence in crypto-assets and focuses on definitional matters. The broadly based UK consultation should nevertheless assist in informing future consultations in Australia. The definitional nature of the Paper suggests that Treasury has approached its task from first principles but with an implicit view of defining many crypto-assets into the existing financial services regime wherever possible.

If the existing framework is to be applied expansively to crypto-asset businesses, substantial and significant work and guidance remains to be provided given the existing financial services regime has evolved to fit centralized products and issuers with different risk profiles.

The Treasury indicates consultation on a licensing and custody framework will be the “logical next step” promising a further consultation paper on this topic by mid-2023. In preparing that paper, the Treasury would be well advised to consider the progress made in other jurisdictions, such as the UK and EU, in proposing solutions which both support innovation and introduce enhanced consumer protections, particularly for centralised crypto asset intermediaries. There remains a strategic opportunity for Australia to implement a legislative regime which adopts best practices from other jurisdictions swiftly and encourages Australia’s continued growth as a hub for fintech and blockchain technology as we enter the Web3 era.

Part A. Background

Part A of the Paper recognises that existing legislation and policy is not fit-for-purpose for crypto-asset products and states that the purpose of token mapping is to:

1. identify key activities of functions in the crypto ecosystem;
2. map those activities against existing regulatory frameworks; and
3. use that mapping to help develop legislation to regulate crypto companies.

Importantly, the Paper notes the extremely small illicit use of crypto-assets globally, which in 2021, was approximately US\$14 billion, representing only 0.15% of total legitimate crypto-asset transactions. This compares with an estimated 0.03% of transactions in the banking systems being illicit and an unknown, but likely single digit percentage of transactions in the cash economy being illicit.

Part B. Token Mapping: terminology and concepts

Part B of the Paper acknowledges that existing legal frameworks do not fit many elements of decentralised systems, which assume financial market risk largely centred around three concepts of promises, intermediaries and agents. The Paper seeks to distinguish between crypto networks, which it describes as platforms that store information and process user instructions, and public crypto networks which rely on protocols that are maintained by volunteers that contribute development resources, research and funding.

While the benefit of crypto networks is acknowledged, in that they can be used to replace costly mechanisms of intermediation, the Paper queries whether there is significant engineering required for crypto networks to scale to a level that enables mainstream adoption. Crypto tokens are defined as having uses on crypto networks and are labelled by the Paper as ‘a unit of digital information.’

The token mapping framework defines three different concepts it applies to crypto-assets and offerings:

1. Tokens;
2. Token systems; and
3. Functions.

Tokens are the physical or digital units of information that play a role in the token system.

A ‘token system’ is a collection of steps involved in performing a function.

A ‘function’ can be any benefit ensured or facilitated by the token system to the token holder.

In effect, the Paper suggests the very sensible position that a token in and of itself is nothing more than a piece of property, or a digital unit of information with property-like characteristics, and that token systems and functions should be considered together. This separation is conceptually sound and is a useful way to consider products.

The Paper’s use of novel terminology in identifying technical concepts (i.e. token systems or intermediated crypto assets) does create a risk of confusion or departure from generally accepted global terminology emerging in respect of crypto assets, particularly in the UK and Europe. In response to Treasury’s previous consultation on “crypto asset secondary service providers or CASSPRs”, a number of participants identified the “CASSPR” terminology as potentially confusing and out of step with other jurisdictions, which have tended to use the term VASP to refer to centralized intermediaries in the crypto ecosystem.

The term “token system” is not intended to refer to a particular blockchain or protocol, but rather a ‘facility’ which is enabled by a blockchain or protocol. Under Treasury’s definition, the Ethereum Blockchain facilitates thousands of “token systems”, some of which are intermediated token systems and some of which are public.

In discussing the general definition of a financial product, the Paper makes clear it is the token system and its functions which should be the subject of regulatory analysis, and not the token itself. This addresses the challenge with, for example, a smart contract offering a lending function which accepts a variety of tokens as security. The existence of that smart contract means holders of the tokens may obtain returns, but the underlying blockchain and tokens are agnostic to whether the smart contract exists, and so should not be caught by the regulatory perimeter by virtue of the smart contract offering loans or paying returns. It is the lending function or offering of yield (being functions of a token system) which would, in this example, attract regulatory scrutiny.

The Paper concedes that it may not be possible to create an “exhaustive, bespoke crypto asset taxonomy”. This is surely correct given the breadth and ever evolving nature of the crypto-asset ecosystem. By focusing on functions, in particular those which involve intermediaries, the Paper is seeking to address key harms regulation is intended to reduce, being the

risk to consumer assets posed by centralised intermediaries and agents.

Part C. Intermediated token systems

The events of the past year, which all involved centralised failures, may have been prevented had those businesses been set-up under fit for purpose regimes with suitable controls.

The Paper addresses crypto projects that involve a promise or arrangement for functions to be performed by intermediaries or agents (**crypto-asset services**), that is centralised services. For example, digital currency exchanges, which facilitate trades between crypto tokens and fiat money (on-ramping when exchanging fiat to crypto and off-ramping when exchanging crypto to fiat).

The Paper asserts that some crypto-asset services could be considered a financial product, without necessarily offering a definitive view. By way of example, the Paper notes that mining/staking arrangements could be structured as a managed investment scheme and that lending and borrowing services could be structured as debentures or other securities. The Paper also states that the terms and functions of the arrangements that constitute the service impact whether the crypto-asset service is structured as a financial product or not.

The Paper makes the uncontroversial statement that if a crypto-asset service is providing a service to customers in respect of crypto-assets which are themselves financial products (e.g. security tokens), then the service provider will likely be carrying on a financial service and thus be subject to financial services law. However, the Paper does not consider whether it is in fact possible under existing laws for the service to be offered in a compliant manner, and ASIC has to date not provided definitive guidance on how innovative blockchain-based projects can be offered under a licence.

Treasury anticipates regulatory and policy issues with respect to crypto-asset services that involve real-world assets and the intersection of contract law, financial services law, consumer law and anti-money laundering and counter-terrorism financing (**AML/CTF**) laws which will apply.

The Paper addresses crypto assets where the link between the token and the token system is created by legal agreement (**intermediated crypto assets**). According to the Paper, assets connected to crypto tokens could include, among other things, rights or licences in relation to event access or subscriptions, rewards programs, consumer goods and services, non-financial assets, government bond coupons etc. The Paper notes the relevant 'asset' in respect of an intermediated crypto asset is often a bundle of rights or expected functions linked to a specific crypto token under a contract, deed, or other arrangement.

Part D. Public token systems

Public token systems involve functions being ensured by crypto networks directly and is enabled by two innovations:

1. Public crypto networks being used as neutral, independent infrastructure for creating transactional relationships between parties; and
2. Smart contracts on public crypto networks being used to create and implement economic mechanisms without the need for intermediaries.

The Paper identifies network tokens as tokens created on public crypto networks that are used by holders for various functions and public smart contracts and are created for the purpose of enabling unknown parties to enter transactional relationships (**network tokens**).

The Paper recognises the broad intrinsic differences between cryptocurrencies generally and acknowledges that the effect each might have on its respective network will likely differ. Similarly, the smart contracts that underpin public networks (**public smart contracts**) are built with different characteristics, for example:

An immutable public token used to swap tokens, one example being swapping ether to wrapped ether (wETH) and vice versa (which the Paper terms an **interoperability mechanism**);

A protocol used by several people which establishes a method for traders to swap crypto tokens against pools of liquidity contributed by liquidity providers (**economic mechanism**);

A smart contract protocol used by individuals who don't know each other to make collective investments into crypto, commonly known as a DAO (**coordination mechanism**).

Network tokens and public smart contracts appear to provide legal issues for regulators. The Paper asserts that these issues are deeper than whether these products are financial products because the existing regulatory frameworks create

regulatory boundaries, obligations, protections and regulatory powers which do not necessarily map to public token systems.

Additionally, while the benefits of smart contracts are well documented, the Paper identifies that those benefits come with a set of different kinds of risks from centralised alternatives, which the Paper identifies as technology risk, model risk, compliance risk and experimental risk. Some of those risks can be present in centralised systems but may be more easily addressed in a centralised environment, for example perimeter security can mitigate technology and experimental risks whereas public smart contracts are, by their nature, open and more vulnerable to exploitation if not developed carefully.

Conclusion

The Treasury Paper and accompanying consultation are intended to inform policy makers in Australia to formulate legislative reforms for crypto assets. While the Paper does not provide definitive guidance on token features or specific tokens, it does outline key elements of the crypto ecosystem which the Government plans to consider in order to establish fit-for-purpose legislation.

The conceptual nature of the Paper suggests that Treasury is approaching the task of formulating reforms with a blank sheet of paper and having regard to first principles. Hopefully, it will also have due regard to developments made overseas. Industry and the public are invited to contribute their views on a wide range of policy questions, with that feedback used to shape the framework for custody and licensing in mid-2023.

The consultation period is open until 3 March 2023 and the Treasury will be hosting invitation-only roundtables in the coming weeks to obtain further feedback. Given the fast moving state of blockchain and crypto-assets in Australia it is essential that as many as possible in the community make their voices heard to ensure that important issues are highlighted and considered as part of the reform process.