



Direct: 0403 873 498  
Email: [adrian@cartlandlaw.com](mailto:adrian@cartlandlaw.com)  
Address: Level 1, 431 King William Street  
Adelaide SA 5000  
Mailing: PO Box 6433  
Halifax Street SA 5000  
Website: [www.cartlandlaw.com](http://www.cartlandlaw.com)  
Office: 0428 053 647

6 October 2022

Email to: [taxdigitalassets@taxboard.gov.au](mailto:taxdigitalassets@taxboard.gov.au)

Dear Sir/Madam,

### **RE: TAX TREATMENT OF CRYPTO ASSET**

According to the terms of reference dated August 2022 you have asked the following questions. I shall set out a brief answer to each of them in turn, and then follow with a detailed analysis of the law and reasoning.

#### **EXECUTIVE SUMMARY**

##### **Current tax treatment of crypto assets**

1. Is the current tax treatment of crypto assets clear and understood under the Australian tax law? If not, what are the areas of uncertainty that may require clarification?

*The ATO's view of the current tax treatment of crypto in Australia is clear, although there are many difficulties in practice. However, the Commissioner's view of crypto diverges from fundamental common law principles of what constitutes property. It seems unlikely that a Court would necessarily follow the ATO's view. The divergence between the ATO's view and common law creates uncertainty for the reasons set out in this submission.*

2. Do crypto assets and associated transactions feature particular characteristics that are 'incompatible' with current tax laws? If yes, what are these and why are they incompatible?

*Crypto assets are not property and attempts to treat them as property are incongruent with other practices. If code is treated as property this will create a fundamental problem in the administration of tax laws and the application of software in Australia.*

##### **Awareness of the tax treatment of crypto assets**

3. Do entities which carry on a business in relation to crypto assets or accept crypto assets as a form of payment, have a comprehensive awareness of the current tax treatment of crypto assets and their tax obligations?

*The current tax treatment of crypto is incongruent with the common law for the reasons set out in this submission, and this creates uncertainty and risk to both taxpayers and the revenue as crypto rapidly develops and evolves.*

4. Are retail investors aware of the current tax treatment of crypto assets? To what extent are they receiving professional tax advice?

*As above*

5. Do wholesale investors understand the current tax treatment of crypto assets? To what extent are they receiving professional tax advice?

*As above*

6. How can taxpayer awareness of the tax treatment of crypto assets be improved?

*The tax treatment of crypto should be brought in line with the common law principles that are set out in this submission.*

### **Characteristics and features of crypto assets**

7. How should the tax transparency of crypto assets be improved, including what information tax administrations need to know about transactions for purposes of compliance and enforcement?

*By attempting to treat lines of code as property, tax authorities will create opportunities for innovation towards secrecy and lack of transparency to avoid incorrect regulation.*

### **International tax treatment of crypto assets and experience**

8. What lessons can Australia draw from the taxation of crypto assets in other comparable jurisdictions, including novel ways of taxing these transactions?

*Australian case law could be considered as ahead of other jurisdictions. For example *Chen v Blockchain Ltd* and *Cssr AFP v TK* each demonstrate that Courts will maintain fundamental principles of property, and show how to make an enforce judgements that are consistent with those principles.*

### **Changes to Australia's taxation laws for crypto assets**

9. What changes, if any, should be made to Australia's taxation laws in relation to crypto assets, whilst maintaining the integrity of the tax system? If changes are required, please specify the reasons.

*In a typical crypto holding there will be but one asset and that is either the confidential information which is the private key, or the chose in action that is the contract between customer and wallet holder. Unless that asset is disposed of then there is rarely a taxing event. The present tax policy attempt to deem a software ledger as property is inappropriate and ineffectual. Further, deeming crypto that are foreign currency to not be foreign currency strips an asset that is property by reason only of being foreign currency of its intended tax profile.*

*Instead, tax should be levied at the time that crypto (or other code) is converted into currency or other property. This maintains consistency with established law, imposes tax on profits, provides easier opportunities for enforcement and is robust to and enabling of future technological innovations.*

10. How could tax laws be designed to ensure that they keep pace with the rapidly evolving nature of crypto assets?

*As above*

### **Administration of Australia's taxation laws for crypto assets**

11. How can the existing tax treatment of crypto assets be improved to ensure better compliance and administration?

*As above*

12. What data sources are available to assist taxpayers in completing their tax obligations and/or the ATO in implementing its compliance activities?

*The point of conversion from crypto (or other code) into property or currency.*

13. Are there intermediaries (such as exchanges) that are involved in particular crypto asset transactions that could play a role in the administration of the tax laws? If so, what would their involvement look like?

*As above*

14. How can taxpayers be further supported to understand their tax obligations in relation to crypto assets?

*As above*

15. What additional support can be provided to the tax adviser community to assist them in advising their clients in relation to the tax treatment of crypto assets?

*Proper implementation and administration of law, as set out in this submission.*

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## THEORETICAL ANALYSIS

### Use of Cryptocurrency

16. It seems customary in submissions on cryptocurrency to start by setting out in detail how they work, with an explanation of blockchains, decentralised ledgers, public and private keys, and so on. Not only do I no longer see this as necessary, as many such exist<sup>1</sup> but indeed I think that it is counter-productive, for the reasons that shall be explained shortly. Instead, I shall start with an explanation of how cryptocurrency is actually used:

#### **Economic Basis**

- 16.1. firstly, there are some specific transactions that have an economic basis for which crypto are used as a payment. For example:
- 16.1.1. famously, the first Bitcoin transaction was to order a pizza for **10,000** Bitcoin<sup>2</sup>, an amount which is now valued at approximately **\$640 million**;
- 16.1.2. Bitcoin can be used to make purchases, particularly from overseas;

<sup>1</sup> See for example: Satoshi Nakamoto. Bitcoin: A Peer-to-Peer Electronic Cash System, <https://bitcoin.org/bitcoin.pdf> ; Legal statement on cryptoassets and smart contracts, The LawTech Delivery Panel, November 2019, p 10; Kelvin F K Low and Ernie G S Teo, "Bitcoins and other cryptocurrencies as property?" (2017) 9(2) Law, Innovation and Technology 235 (available at [https://ink.library.smu.edu.sg/sol\\_research/2806](https://ink.library.smu.edu.sg/sol_research/2806) )

<sup>2</sup> <https://www.news.com.au/finance/money/investing/meet-the-infamous-bitcoin-pizza-guy-who-squandered-a-500m-haul/news-story/ecca3d4812c9535c7168c2575f196153>

- 16.1.3. a number of cases cite Bitcoin for making illicit transactions on the “dark web”, a shadow part of the internet;<sup>3</sup>
- 16.1.4. Tesla will accept Dogecoin for purchases of its cars;
- 16.1.5. some Australian firms claim to accept payment by way of cryptocurrency – it is technically not difficult, being simply a selection of allowable currencies received on a payment gateway such as Stripe or Paypal. Just as a firm could state that they will accept payment in AUD, USD or EUR, they can also select BTC, ETH or DOGE. But, except for some limited scenarios where payment is made to a public key that is set up separately, usually the payment is made to a payment gateway or exchange, whereupon it is immediately converted into AUD, or whatever the local currency is, and reconciled against an invoice that was denominated in that same currency;

### **Crypto for Crypto**

- 16.2. predominantly, it is only in the purchase of other cryptocurrency (and related transactions) that prices are denominated in crypto. Or in illicit transactions. Therefore, when we see that only a small fraction of major crypto such as BTC are used in transactions (1%), it is indeed a fraction of that fraction that are truly used for payment;

### **El Salvador**

- 16.3. one notable exception to this is El Salvador which has adopted BTC as an official currency<sup>4</sup> in the hope that it will ease for Salvadorans sending money home from abroad. These transfers account for up to a fifth of the country’s GDP, although 70% of people in the country have no bank account.<sup>5</sup> At the time of writing the adoption of Bitcoin as an official currency has been widely rejected by the populace and has failed to halt El Salvador’s pre-existing financial woes, instead adding cryptocurrency based volatility into its financial system.<sup>6</sup>

### **Summary of Uses**

Two points can be derived from these observations:

- 16.4. that crypto can have a function outside of areas that the reach of law applies; and
- 16.5. that the other stated applications are more pretence than substance.

### **Lawless Databases**

- 17. It has become fashionable for crypto to be created to replace other architectures of society:

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<sup>3</sup> See for example: R v Morrison [2020] QCA 93; R (Cth) v Daniel Peter Mend [2017] NSW DC1; Edmonds v The Queen [2019] NTCCA.1

<sup>4</sup> <https://www.bbc.com/news/technology-58473260>

<sup>5</sup> <https://www.reuters.com/business/finance/exclusive-el-salvador-bitcoin-transfers-soar-still-fraction-dollar-remittances-2021-06-14/>

<sup>6</sup> <https://www.newscientist.com/article/2289763-why-has-el-salvador-officially-adopted-bitcoin-as-its-currency/>  
<https://www.theguardian.com/business/2021/sep/24/el-salvador-adoption-of-bitcoin-as-legal-tender-is-pure-folly>



### Inviolability and Trust

- 17.1. BTC was created to solve the inviolability of many predecessor internet currencies.<sup>7</sup> It is to operate in the absence of some reliable State sanctioned mechanism. With the operation of reliable payment gateways such as Stripe or Paypal, which companies are governed by lawful jurisdictions, the actions of the majority of internet based transactions can be done by way of fiat currency. It is only where the law breaks down such as on the dark web or in El Salvador are crypto useful. Otherwise, crypto function as a highly volatile, and sometimes slow and expensive method of making transactions. For example, the price of BTC has fluctuated between **\$14,722** on **4<sup>th</sup> October 2020** and **\$73,732** on **4<sup>th</sup> May 2021** (in seven months), and on **21<sup>st</sup> April 2021** it took half a day and all-time high of **\$62.80** in fees to make a transaction.<sup>8</sup> There are of course many potential solutions to these problems, such as secondary layers for making transaction or alternative cryptocurrencies, but these are not universally accepted solutions;

### Ledger

- 17.2. many other purported areas of crypto seem equally second-rate where there is functioning rule of law. The blockchain is essentially a slow, low powered and difficult to change ledger. Ideas such as putting lands titles on the blockchain will always be inferior to having a well governed Land Titles Office. In Australia, the legal tech company and ELNO operator PEXA has created a software system and organisation costing hundreds of millions of dollars, and having the benefit of State sanctioned reliability, but also the ability to remedy error. Attempting to create the same software on a blockchain, for the supposed benefits of immutability, would be difficult to change and adapt, whether based on legislative changes, or commercial considerations;

### Registry

- 17.3. consider, for example, a typical blockchain that required 50% consensus for any rule change, running a Lands Title Registry, and a legislative change required an updating of the protocols, but **50%** acceptance was not achieved. Would there be a separate implementation of a new Lands Titles Registry - a "Hard Fork", such that there are now two? Or would the change simply not occur as required. For a company like PEXA, compulsion to change could be enforced, but on a truly distributed system (governed by disparate users) such compulsion is impossible, except say to ban it completely such as in China;

### Hybrid

- 17.4. of course, there could be some compromise, or hybrid, solutions, whereby one company manages and supervises the blockchain, particularly in the case of error. This is indeed how most crypto operate! Take for example The Decentralised Autonomous Organisation, which was supposedly to be governed only by automated decisions of its members. However, once there was a hack of the system<sup>9</sup> that brought about severely unintended consequences the Ethereum Foundation created a Hard Fork of ETH to undo and erase these supposedly "immutable" transactions – which actually still live on in the "classic" Ethereum ETC.<sup>10</sup> The Ethereum Foundation

<sup>7</sup> See for example: e-gold, Web Money, Liberty Reserve and Hash Cash

<sup>8</sup> <https://news.coincu.com/39559-bitcoin-transaction-fees-down-more-than-50-this-year/>

<sup>9</sup> <https://coinmarketcap.com/alexandria/article/a-history-of-the-dao-hack>

<sup>10</sup> The forked coins are given the different

then implored the public to believe that it would only do such a thing as reverse the immutability of transactions in necessary scenarios.

Thus, even in the practice of crypto, it can be seen that it is better to have a system governed by a trusted and lawful operator. Similarly, for NFTs, they would generally be better on the International Foundation for Art Research database.

### **Actual Uses of Cryptocurrency**

18. Although there is a small (and originating) core of anarchists and tech purists who believe that crypto can create some extra-governmental decentralised utopia, the vast majority of users of crypto use it for one thing: charitably described as a “store of wealth”, less charitably described as “gambling”:

#### **Demand and Price**

- 18.1. if BTC is an interesting project with use cases where the law does not operate, it has a limited utility. However the greater the utility that it has and more that it is used, the greater the demand for the finite supply of coins.<sup>11</sup> The greater the demand, the higher the price. If people can be convinced that BTC could be a reserve currency internationally, or replace fiat currency, the demand will increase further. But you don't need to actually make BTC into a currency used every day to make the price appreciate. Nor do you even need to convince people that one day it will. All that you need to make people believe is that other people might believe that BTC will obtain common usage, and that that imaginary pool of suckers will buy BTC on that pretence. Therefore, in order to get ahead of that imaginary pool of suckers, people purchase BTC now, thinking that it will go up in price;
- 18.2. this pattern is repeated across the different cryptocurrencies;

#### **Common Adoption**

- 18.3. having a veneer of respectability and potentiality is why crypto with objectively bad uses of the blockchain (a slow, expensive database) are created. All that needs to be created is a belief that it is plausible enough for other suckers to fall for the crypto, by which time the founders, and the initial investors will have made their money through an appreciation in the price of the fixed supply coin;

#### **Memes and Scams**

- 18.4. in the last few years, even this pretence has been abandoned. Hundreds of crypto have openly marketed as being created as schemes for rapid appreciation in value, which will ultimately fall in value, but hopefully not before the initial investors have exited. Picking which crypto might appreciate in value the fastest is an exercise in guessing the bets, amusement and whims of the crowd of crypto investor:
- 18.4.1. a coin might do well because it is fashioned on a meme or joke. The Dogecoin, which was never intended as more than a joke, now has a market capitalisation of more than **\$30B**.<sup>12</sup> This joke has been further developed into other crypto e.g. Dogelon Mars (amalgamation of Dogecoin

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<sup>11</sup> A perfectly inelastic supply curve

<sup>12</sup> <https://www.coingecko.com/en/coins/dogecoin>

and Elon Musk), among many others. Would you trust a project with a “White Paper” in the form of comics?<sup>13</sup>

- 18.4.2. another example of a memecoin is a cryptocurrency called Squid Game. It was launched to reap the hype of the movie of the same name. It turned out to be nothing but a scam;<sup>14</sup>
  - 18.4.3. pranks, and fraud, abound. A coin might be purchased that later is unable to be transferred (and so has no utility) for the purpose of vicious amusement of the creators. Or perhaps so that once they have received payment they can more easily make off with the proceeds without having to expend resources on a façade;
  - 18.4.4. pump and dump schemes are openly advertised;
  - 18.4.5. yet people knowingly invest in crypto that is for the major coins highly volatile and speculative and for the hundreds of altcoins even more volatile, but fraught with - at best - market manipulation - at worst - fraud. And the purpose of so investing and holding those investments (or “hodling” to use the vernacular) is in the hope of rapid appreciation of value and the creation of vast wealth for little effort other than picking a winner. Put simply, the dominant use of cryptocurrency is speculation and gambling;
- 18.5. the reason I have not been eager to do yet another technical analysis of how blockchain operates at the beginning of my submission is because I do not wish to add to the veneer of respectability, or to obfuscate the matter with technical jargon and analysis. Such considerations have coloured some of the emergent cases on crypto. For example, in *Cryptopia*, Counsel for the former accountholders at Cryptopia argued that if crypto was not counted as property, then it could impact upon succession planning, insolvency law, contract and commercial law disputes. Such a desire for crypto to be property seems almost noble in that context. However, it’s less noble if it is merely the ledger for a particular method of gambling is considered a type of property; and
- 18.6. in my view, there has been a willing and wishing for crypto to be treated as property. By treating crypto as property, the veneer of respectability is increased for those in the crypto industry, on the pundits gambling upon wider adoption, it is easier for taxation and regulation, and it is easier for Courts to apply existing remedies such as injunctions and recognise declarations of trust in relation to it. However, to recognise mere information as property is a needless, and problematic, invention of a new class of property.

### **Should Code be Property?**

19. Computer code underpins the technology in our modern environment. It is often a form of property, being the copyright of the authors. But besides from that, could code become its own form of separate property?

### **Digital Assets**

- 19.1. If you write a computer program then as the author you are the owner of the code. You can license the use of the program on the terms that you decide to its users.

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<sup>13</sup> <https://dogelonmars.com/about#saga>

<sup>14</sup> <https://investorplace.com/2021/12/7-biggest-scam-coins-to-avoid-as-we-head-into-year-end/>

Those users do not gain any kind of rights, unless you see fit to give it to them. Therefore, if you wrote the program for Space Invaders<sup>15</sup> and a user plays the game and gets points, the points are merely a function of the code that you wrote and not some separate asset, except to the extent of your license with them. If the user has paid the developer and the developer has warranted that the code will work in a particular way then there may be some contractual remedy if it does not. If through an error in the code the points that the user has accumulated in Space Invaders suddenly disappear then the only remedy the user may have is under contract and will depend on the contractual terms. The user has not lost some property in their accumulated points, notwithstanding that those points might be quite valuable to them. For an amusing example of this there is the Seinfeld episode whereby George Costanza admits that the only thing that he has ever done well is get the high score in the game Frogger. Unfortunately, the arcade machine that Frogger is going to be turned off and he will lose his score. He then goes to outlandish lengths to save the arcade machine and keep what he considers his valuable high score;<sup>16</sup>

### Digital Lifestyle

- 19.2. While a high score in Space Invaders or Frogger might seem trivial, in our modern digital environment there are many such created assets that are quite important to us. Facebook profiles and the photos that we have uploaded to them, music collection that you have purchased off iTunes, all the data collected about you as you use the internet. These are not property. The terms of your social media licensing agreement will typically prevent you from selling your profile claiming some kind of ownership in what you have uploaded. At the whim of the host company your account can be cancelled, even if you have millions of followers and thus immense value to you. If you no longer use iTunes you don't have some right to move the songs that you have downloaded to some other platform. And your personal data that is gathered by websites is owned by them and not by you;
- 19.3. Although we might treat these things as our assets, we have no enduring rights to alienate them other than that which we have contracted, or in some limited circumstances has been legislated. While they might be valuable and important to us, they are not property. But the question is *should* they be property?

### New Types of Property

- 19.4. If you create property out of code, beyond copyright and any contractual licensing rights, to trample wholesale on the rights of the developers. If your points in Space Invaders became property, whether by evolution of common law or by legislative intervention, and if the developer of Space Invaders no longer wished to maintain the program they might end up destroying your property. Would they need to then commit to ongoing developments in their software for an unlimited period of time and to maintain operability with different devices and standards? Or could they set their software at a particular point in time? If there is a social media platform that has a type of account designed for individuals, but some famous individuals accumulate large numbers of followers and operate it in a commercial manner, the accounts could morph into rights held by a business and thus separate from the original intention of

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<sup>15</sup> I use Space Invaders as an easily understandable and recognisable example in this paper. Obviously, there are many features that it has that are quite different to many crypto, such as a known author, a single player mode, lack of user login, lack of playing over networks and so on. There are many video games that match the relevant attributes of crypto much more closely. However, in order to illustrate the relevance of points I have chosen a universally familiar program.

<sup>16</sup> <https://youtu.be/L3urawMnPFA>

the platform provider. If a social media account is valuable property does the platform have rights to terminate or restrict that property where the provider believes that the actions of the user compromise the environment that they are seeking to maintain for other users? If you have downloaded music or movies subject to a license that the provider has obtained and has granted a subset of rights that have derived from their own limited license to use that copyright material, how could you create rights of transferability that are beyond the rights that the provider had themselves?

- 19.5. It's not simply enough to say that these things have value and therefore are property, there are many things that we value that are not property. Love and affection is valuable but it is not property. If our digital rights became property it also means that we could potentially criminalise mundane actions. While making copyrighted material such as movies or music might give some truth to the campaigns about stealing movies or music, that does not seem a reason to create a proprietary right in them. (Movies and music cannot be stolen in countries that do not treat copyright as property, despite claims of recording studios, because you have not taken their original material, a necessary component of theft. Of course, warnings not to breach copyright licensing terms in relation to a movie or music doesn't have the same ring to it as asserting theft);

### **Intellectual Property Problems**

- 19.6. While it may do justice in the matters at hand we should not ignore a body of law simply because it suits a particular desired outcome. In particular if we create proprietary interest in copyright material out of the code we end up with a host of problems. If the destruction of my emails can constitute property, does this mean I have a right to sue Microsoft in the event that a system update causes them to disappear? But at a more fundamental level considering data as some kind of property is misguided. While it may seem that we are able to copy and cut and paste and delete data, at the detail level what there is a bunch of 1's and 0's that are stored on one or more devices. If those 1's and 0's become property, every time I move them I am creating fresh property! Here is a slightly older example: if I defragment my disk drive, I am deleting data and then recreating it anew, even though it may appear to me that nothing is lost. (Defragmenting is where data gets stored broadly across a drive, and it is then moved and re-ordered to a more compact place in the drive so as to speed up its access.).

### **LEGAL ANALYSIS**

Whether crypto is at law property is important for how we may deal with it. Trusts require some subject matter property, and if crypto is not property then any purported trust over crypto will fail. If crypto is not property then it cannot be assigned, subject to freezing orders, or taxed upon its disposal (without legislative reform). There are two main contenders for how crypto may be some form of property: as money, or as some form of new category of property. If neither apply then any legal dealings will have to make use of traditional forms of property that potentially surround crypto.

### **Crypto as Money**

20. Money is a word which has a meaning dependent on its context. For example, its meaning in a statute or in a private document such as a will, deed, trust or contract will depend on the ordinary principles of construction and may include currency, currency equivalents (such as

negotiable instruments) or even non-currency items such as the whole of a testator's personal estate or entire property (real and personal);<sup>17</sup>

20.1. Stone J in *Federal Commissioner of Taxation v Lean* (2009) 73 ATR 34; [2009] FCA 490 stated that:

*The difficulty arises from the use of the word, "money". Various dictionary definitions have in common that money is a current medium of exchange in terms of coin or certificates (banknotes). The respondent submitted that in the absence of any prescribed meaning in the relevant legislation the term must take its ordinary meaning. The Macquarie Dictionary (3rd ed) gives the following definition:*

1. gold, silver, or other metal in pieces of convenient form stamped by public authority and issued as a medium of exchange and measure of value.
2. current coin.
3. coin or certificate (as banknotes, etc.) generally accepted in payment of debts and current transactions.
4. any article or substance similarly used.
5. a particular form of denomination of currency.
6. a money of account.
7. property considered with reference to its pecuniary value.
8. an amount or sum of money.
9. wealth reckoned in terms of money.
10. (pl) Archaic or Law. Pecuniary sums.
11. pecuniary profit.

20.2. accordingly, "money" does not necessarily have the same meaning as in economics, which is usually expressed in functional terms within a particular community. Thus, "money" can be seen as:

- 20.2.1. primarily a medium of exchange;
- 20.2.2. as legal tender, in which case it is used interchangeably with "currency";<sup>18</sup>
- 20.2.3. as a common or standard measure of value for comparing other commodities or services;
- 20.2.4. as a unit of account;

20.3. a general description of money is that it is a medium of exchange that carries rights which, in the eyes of the law, are sufficient to meet a financial obligation;

20.4. specific types of money are as follows:

<sup>17</sup> See *Federal Commissioner of Taxation v Lean* (2009) 73 ATR 34; [2009] FCA 490, Stone J at [25]

<sup>18</sup> "Money" in *Bills of Exchange Act 1909* (Cth), s (1) means currency, though not necessarily the legal tender of the place where the bill, cheque or note is drawn or payable: ss 8(1), 89(1). See *Cheques Act 1986* (Cth) s 10(1)(c); *McDonald v Belcher* [1904] AC 429 (promise to pay in gold dust not a promissory note).

### Currency

- 20.4.1. section 8(1) of the *Currency Act 1965* (Cth) provides that the monetary unit, or unit of currency, of Australia is the dollar;<sup>19</sup>
- 20.4.2. currency is the notes and coins issued under the authority of Australian statute, principally, the Reserve Bank of Australia Act 1956 (which prints notes) and the Currency Act 1965 (that deals with coins). By the force of law, currency is sufficient to meet a financial obligation;

### Foreign currency

- 20.4.3. Brennan J in *Leask v The Commonwealth* [1996] HCA 29; (1996) 187 CLR 579 explained foreign currency:

*“Currency consists of notes or coins of denominations expressed as units of account of a country and is issued under the laws of that country for use as a medium of exchange of wealth”*

- 20.4.4. In *Seribu Pty Ltd and Commissioner of Taxation (Taxation)* [2020] AATA 1840 it was considered whether Bitcoin is a foreign currency for the purposes of s 995-1 of the Income Tax Assessment Act 1997, which would have the consequence that Seribu would be entitled to deduct the losses that it made on that foreign currency under the rules in Div 775. Deputy President Bernard J McCabe formed the view that:

*“I have already pointed out the expression ‘foreign currency’ is defined in s 995-1 as “a currency other than an Australian currency”. While the definition is expressed awkwardly, the meaning is clear enough: the reference to “an Australian currency” is plainly a reference to the unit of exchange established in the Currency Act, and the reference to “[an]other currency” must be interpreted in light of that comparator. It follows the “other currency” in question must be an official currency issued or recognised by a sovereign state.”*

- 20.4.5. Given that El Salvador has now adopted Bitcoin as an official currency, it follows that Bitcoin is a foreign currency, and is a special exception. So too will be any other cryptocurrencies that are adopted as official currencies in one or more countries. Other cryptocurrencies are not, and I respectfully agree with the analysis in *Seribu* that the essence of a foreign currency is one of recognition by a sovereign State, and not mere usage outside of Australia;
- 20.4.6. The correctness of this view at law has necessitated the announcement of *Treasury Laws Amendment Bill 2022: Taxation treatment of digital currency* which deems that crypto is not a foreign currency for taxation purposes. However this does not alter the legislative rights that flow from a crypto being legal tender in a country. That is, the recognition of a crypto a legal tender in a country will inure it with rights sufficient to make it property (see

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<sup>19</sup> Section 9(1) provides that all contracts, instruments and transactions “relating to money, or involving the payment of, or liability to pay, money” shall be “made, executed, entered into or done” in Australian currency unless made according to the currency of some other country.

further analysis below), and thus it will be a special exemption that constitutes property – regardless of its tax treatment;

### **Legal tender**

- 20.4.7. Australian currency is legal tender in Australia. Legal tender is a concept whereby the offering of legal tender to meet a financial obligation is, in the eyes of the law, sufficient to extinguish that obligation;
- 20.4.8. all payments to meet a financial obligation must be made in legal tender unless the parties agree otherwise. Thus, when purchasing a home, a purchaser is legally able to pay the purchase price in folding notes and physical cents.<sup>20</sup> This is legal tender and is sufficient to meet the purchase price. Of course this is highly impractical and therefore the parties agree that the purchase price may be met by the tender of a bank cheque. As will be discussed, a cheque (and other bills of exchange) are money but not legal tender (because a creditor is not obligated under the law to accept a cheque). In the absence of agreement, a creditor does not need to accept a cheque and can demand legal tender;
- 20.4.9. there are 'limits' on legal tender. 5 cent coins can only be used to meet financial obligations not exceeding \$5 (section 16 of the Currency Act). Readers may recall a recent incident where a local resident, disgruntled with a parking fine handed out by the Adelaide City Council, attempted to pay the entire amount with 5 cent coins! The Council had the legal right to refuse all but \$5 of that purported payment;
- 20.4.10. other restrictions on legal tender are:
- 20.4.10.1. coins of one and two cents – not more than 20 cents while those coins remained in circulation as currency;
  - 20.4.10.2. coins over 50 cents and under 10 dollars – not more than 10 times the face value of the denomination of the coin concerned;
  - 20.4.10.3. coins of 10 dollars – not more than 100 dollars; and
  - 20.4.10.4. coins of other denominations – any amount;
- 20.4.11. the amount tendered ought to be the precise amount to be paid unless a greater amount is tendered and change is requested but not demanded; it is arguable that a creditor is not obliged to give change;<sup>21</sup>

### **Money is a Chattel**

- 20.5. when it is currency, it has the quality of negotiability which it shares with bills of exchange, promissory notes, cheques and other negotiable instruments and has the legal protections afforded by the action in money had and received.<sup>22</sup> When it is not

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<sup>20</sup> Seasoned lawyers will recall the times when settlements occurred not at the Land Titles Office but at banks where the purchaser's bank officer would literally hand over a bag of cash to the bank officer of the vendor.

<sup>21</sup> *Wade's Case* (1600) 5 Co Rep 114

<sup>22</sup> Thus, the rights in relation to use as currency are supplied when the physical tokens are supplied: *Travellex Ltd v Federal Commissioner of Taxation* (2010) 241 CLR 510, French CJ and Hayne J at [26], [27], [32], Heydon J at [47] and Crennan and Bell JJ at [83]



currency, it has the same legal protections (in conversion and so on) which other chattels have;

- 20.6. the qualities of currency were classically expounded by Mansfield LJ in *Miller v Race* (1758) 1 Burr 452; 97 ER 398, where the holder for value of a stolen banknote (payable to the bearer) was able to enforce payment of the note free of his defect in title:

*Now they [banknotes] are not goods, not securities, nor documents for debts, nor are so esteemed: but are treated as money, as cash, in the ordinary course and transaction of business, by the general consent of mankind; which gives them the credit and currency of money, to all intents and purposes. They are as much money, as guineas themselves are; or any other current coin, that is used in common payments, as money or cash ... The true reason [why money cannot be subject to the usual chattel remedies] is, upon account of the currency of it: it cannot be recovered after it has passed in currency. So, in case of money stolen, the true owner cannot recover it, after it has been paid away fairly and honestly upon a valuable and bona fide consideration: but before money has passed in currency, an action may be brought for the money itself ... A banknote is constantly and universally, both at home and abroad, treated as money, as cash; and paid and received, as cash; and it is necessary, for the purpose of commerce, their currency should be established and secured.<sup>23</sup>*

- 20.7. money which is currency but which is held as a collectors' item, so that its value for this purpose exceeds its nominal or face value, and even currency which can be separately identified from other currency (eg, by physical separation in a strong box or by identifying number) will be able to be treated in the same manner, for the purposes of available legal protections, as non-currency (such as antique coins which are no longer in currency);
- 20.8. thus, in *Moss v Hancock* [1899] 2 QB 111, a specifically minted five pound gold piece which was currency by Royal proclamation was nevertheless able to be recovered by an action in conversion because it had not be shown that the particular stolen piece had passed into currency;

### **Contact Between Banker and Customer**

- 20.9. A bank account is a *chose in action*, being the contractual right between the banker and customer. Trusts can be declared over the rights in that contract. Declaring a trust over 'cash', being a chattel, is problematic because it is incorrectly describing the subject matter of the trust. Indeed if there is an overdrawn bank account there will be no cash:

#### Lamshed

- 20.9.1. In *Re Lamshed* (deceased) a father gave 8,000 pound to his daughter and her husband, for the purpose of enabling them to buy a dairy property. He filed a gift duty return in connection with the gift, in which he showed two gifts of 4,000 pound each, one to his daughter and one to her husband. The father died intestate. With respect to the monies being a declaration of trust the Court said:

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<sup>23</sup> Mansfield LJ at 457-459

*“Lamshed from time to time deposited sums of money in a savings bank in trust accounts. In respect of each account he made a declaration that he constituted himself a trustee of the moneys in the account for a person named in the declaration. There was no direct communication by Lamshed to any of the persons named in the declarations that he had opened trust accounts for them, although he had from time to time indicated that he was making some provision of that nature for some of the beneficiaries.”*

- 20.9.2. Lamshed drew interest which accrued on the accounts and showed it in his income tax return as income. He also from time to time made withdrawals from some of the accounts and also made deposits;
- 20.9.3. The court held that Lamshed had constituted himself a trustee of the amounts deposited in the accounts for the named beneficiaries, but not in respect of the interest accruing on the accounts. They also stated that the withdrawals from the accounts were breaches of trust, but where there were subsequent deposits after withdrawals, the subsequent deposits should be regarded as making good, pro tanto, the deficiencies.

#### Joliffe

- 20.9.4. In *Joliffe*<sup>24</sup> a man opened a bank account in his name as trustee for his wife as a trust account and deposited his own money in it. Upon the death of his wife he withdrew the balance of the account and appropriated it as his own. The Commissioner of Stamp Duty claimed estate duty on the money as part as Mrs Joliffe’s estate. Mr Joliffe argued that no trust existed because no trust had ever been intended. His evidence was that he had applied the money for his own purposes and that the purpose of opening the account was to avoid his creditors. The High Court agreed with Mr Joliffe finding that:

*“it is obviously essential to the creation of a trust, that there should be the intention of creating a trust, and therefore if upon a consideration of all the circumstances the Court is of opinion that the settlor did not mean to create a trust, the Court will not impute a trust where none was in fact contemplated”*

#### Kauter v Hilton

- 20.9.5. In *Kauter v Hilton*<sup>25</sup> a man promised to leave his niece money in trust accounts. He had not included his in his Will, saying, in effect, that she would be better off if he put money into trust accounts while he was alive. A number of passbook accounts were opened in his name. In each case he gave the niece the passbook. Withdrawals could not be made from the accounts without presenting the passbook. The High Court held that an irrevocable trust of the moneys in the account on their deposit, although the beneficial ownership of the amounts was postponed until the man’s death.

#### Parkview

- 20.9.6. *Parkview Qld Pty Ltd v Commonwealth Bank of Australia* [2013] NSWCA 422 concerned whether a trust arose in relation to a building contract that

<sup>24</sup> *Commissioner of Stamp Duties (Qld) v Joliffe* (1920) 28 CLR 178

<sup>25</sup> *Kauter v Hilton* (1953) 90 CLR 86

required one party to set aside monies in a 'retention account'. Fortia was obliged to retain monies that it drew down from the bank's progress payments to pay the developer Parkview. The amounts that Fortia was entitled to draw down, it did not. It had the ability to draw that amount down from the bank.

- 20.9.7. Was there a constructive trust with the bank as trustee over the undrawn amounts? There was valuable consideration to bind the conscience of Fortia to establish a trust

*The second formulation was that Fortia had the right to draw down the balance of its facility, that it could have declared itself a trustee of that chose in action, that the Bank was in the position of control of those monies, in the sense that it could make those monies available, and was therefore to be regarded as a trustee de son tort. The argument is subtle; it was expressed by Mr Parker SC as follows:*

*"The other way in which we put it is that it is possible to see that as an asset ... it's a chose in action where Fortia has the right to draw it down. Now, there's no difficulty with being a trustee of a promise. Fortia could have declared itself trustee of that right, and the trustee would have been required to draw those monies down. If BankWest has in effect assumed the position of being the trustee or looking after the security, we would say that BankWest was in a position of control over those monies, 'control' in the sense that it was able to make those monies available."*

- 20.9.8. However, Fortia did not declare itself trustee of that chose in action.

*"There is no doubt that a contractual right can be held on trust. As Lord Shaw said in Lord Strathcona Steamship Co Ltd v Dominion Coal Co Ltd [1926] AC 108 at 124, "There can be a trust of a chattel or of a chose in action, or of a right or obligation under an ordinary legal contract, just as much as a trust of land."*

*There is nothing in the evidence to suggest that Fortia did in fact declare itself, ..., a trustee of the right,...*

- 20.9.9. In addition, the bank was not able to be a *trustee de son tort* because it did not control over the asset.

*"The right Fortia had to draw down funds was a right against the Bank ... The Bank did not have "control" in the relevant sense over that chose in action; to the contrary, the Bank was the person against whom that chose in action could be vindicated"*

- 20.9.10. There may be a tracing remedy if funds the subject to a trust are dispersed.<sup>26</sup>

### **Electronic Payments**

- 20.10. when currency is deposited at the bank or with another financial institution it loses its quality as currency. It becomes a chose in action being a contract between banker

<sup>26</sup> *Associated Alloys Pty Ltd v ACN 001 452 106 Pty Ltd [2000] HCA 25; 202 CLR 588*

and customer. Through that contract the deposit holder can compel the bank to make payments to other banks;

- 20.11. lower value, primarily consumer, funds transfers through ATMSs, EFTPOS and by means of internet payments, digital coins and stored value cards or similar mechanisms are governed by contracts between relevant institutions, between each institution and its customers, and by self-regulatory codes of conduct which anticipate or forestall formal governmental regulation;
- 20.12. an electronic payment is therefore an activation of a series of legal relationships;

### **Moss v Hancock**

- 20.13. *Moss v Hancock*<sup>27</sup> is the authority for the proposition that money is:

*“that which passes freely from hand to hand throughout the community in final discharge of debts and full payment for commodities, being accepted equally without reference to the character or credit of the person who offers it and without the intention of the person who receives it to consume it or apply it to any other use than in turn to tender it to others in discharge of debts or payment for commodities.”*

- 20.14. it has been noted that

*“The definition suffers from the obvious defect that it does not include the exchange settlement funds held by banks with a central bank. Such funds are not available to the community at all, passing only between banks. They nevertheless constitute the monetary base of the payments system”*<sup>28</sup>

- 20.15. the *Moss v Hancock* definition excludes all forms of electronic monetary payments. It strictly includes only that which “*passes from hand to hand*”. A crediting of money between banks does not do so. On this view, no electronic payment, debiting between banks, payment by promissory note or other form is an exchange of money;
- 20.16. in my view, this is a perfectly suitable definition for money that is based solely on *in specie* issued or backed currency (e.g. silver pennies and gold sovereigns). It is otherwise inappropriate. The *Moss v Hancock* definition has recently been analysed in a number of Australian forums to consider what constitutes money. In my view there is divergence amongst the authorities. The primary cases are *Messenger Press v FCT* and *Travelex (FC)*<sup>29</sup> and *Travelex (HC)*<sup>30</sup>. This analysis has then been taken up in *Landfall*<sup>31</sup> and in a number of ATO rulings;

### **Travelex (FC)**

- 20.17. Travelex concerned whether Travelex Ltd’s sale of 400 Fijian dollars to an employee at its counter on the departure side of the Customs barrier at Sydney International Airport was a supply of or in relation to rights and therefore GST-free. At first instance in *Travelex (FC)* (and on appeal in the Full Court of the Federal Court), based on the reasoning in *Moss v Hancock* it was held by Emmett J that the supply was the supply

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<sup>27</sup> [1899] 2 QB 111 at 116

<sup>28</sup> *Landfall*

<sup>29</sup> *Travelex Ltd v Commissioner of Taxation* [2008] FCA 1961, 19 December 2008 (“*Travelex (FC)*”)

<sup>30</sup> *Travelex Ltd v Commissioner of Taxation* [2010] HCA 13, 29 September 2010 (“*Travelex (HC)*”)

<sup>31</sup> *Landfall Pty Ltd v Chief Commissioner of State Revenue* [2012] NSWADT 270

of notes and coins (that is, of the physical paper and coins) and that the rights attaching to those notes and coins were incidental;

### **Messenger Press v FCT**

- 20.18. in *Messenger Press*, companies connected with Rupert Murdoch tendered promissory notes<sup>32</sup> in a 'round robin' transaction to extinguish intercompany debts. The case was a taxation case that considered the tax effects of foreign currencies (the promissory note was in foreign currency and the debts to be extinguished were in Australian currency). The taxation issues largely occupied the judgment of the Federal Court (they will not be discussed) but in doing so, Perram J briefly considered the nature of a promissory note. His Honour cited the above statement of *Moss v Hancock* as referred to by Emmett J in *Travelex (FC)* and applied it to promissory notes denominated in a foreign currency paid in exchange for release of a book debt denominated in Australian currency. In concluding that the promissory notes were not 'money' under the *Moss* concept of money, Perram J noted:

*"There was no evidence that the promissory notes had taken on the quality of being able to be used throughout the community for the discharge of debts and, if they did have that quality, any reasonable person would certainly make inquiries as to the 'character or credit' of the issuer before accepting such a note."*

- 20.19. there are a number of problems with this reasoning:
- 20.19.1. Perram J's comments are clearly *obiter*,
- 20.19.2. they are based on *Travelex* at first instance (see below). *Travelex (HC)* found for the taxpayers, rather than the Commissioner as Emmett J did, holding that the sale of foreign currency supplied the rights attaching to that currency; and
- 20.19.3. Perram J's conclusion does not reconcile with the statement of the High Court in *Mackenzie v Rees* and the Victorian Supreme Court of *Mobil* where respectively it was concluded that a promissory note is payment and is to be treated as a cash equivalent;
- 20.20. on appeal to the Full Court *Messenger Press* was overturned. However the comments of Perram J, being irrelevant to the Full Court's reasoning, were not addressed;

### **Travelex (HC)**

- 20.21. dissatisfied with its outcome, *Travelex* appealed to the High Court. By 3-2, the High Court accepted *Travelex*'s argument that the supplies of foreign currency was a supply of a right. As stated by Heydon J:

*"The trial judge and the majority in the Full Court of the Federal Court treated the supply of the pieces of paper as being "the supply", and the rights as being merely a consequence or incident of that supply. The transaction should be characterised differently. The legal substance of the transaction was the supply of rights. The rights supplied were the rights enjoyed by the holder of the currency as created by the statute law of Fiji. The handing over of the pieces of paper constituted, evidenced, and was not capable of disaggregation from, the supply of rights. Apart from those rights, the pieces of paper had little value. They might have been used to stop an*

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<sup>32</sup> With face value \$US2,847,080,544. Clearly an inappropriate sum for a cash withdrawal.

*uneven table wobbling, or to jam shut a loose door, or to amuse small children, or to light a cigar. If the currency included coins, the coins might have been used to turn stiff screws or to lay on railway lines for the purpose of being flattened. But uses of that kind, which are very remote from their real purpose, would not prevent both the pieces of paper and the coins from being almost worthless. The supply of the currency was a supply in relation to the rights it gave because these rights constituted the pith and substance of the transaction.”*

- 20.22. money is therefore a right attached to a medium of exchange. The holder of a note or a coin has, intrinsically connected to that note or coin, certain rights under statute that the note or coin can be used to make payment of goods or services and to discharge debts in the relevant jurisdiction (Fiji in the case of *Travelex*);
- 20.23. the physical paper or coin is the vessel by which the rights literally change hands. As Heydon J stated, without those rights, a \$100 note may as well be used to prop up a wobbly table leg;

### **Passing Rights is Money**

- 20.24. based on *Travelex (HC)* as well as extensive earlier authority the correct view is to see that money (and legal currency) will pass by an exchange of rights. There are various ways to pass these rights:
- 20.24.1. through the passing of the chattel of physical money;
- 20.24.2. through the exchange of rights between banker and customer being an electronic payment, credit card payment, EFTPOS payment etc;
- 20.24.3. through the payment of a cheque; and
- 20.24.4. through the rights granted under a promissory note or bill of exchange;

### **Cryptocurrency and Passing Rights**

- 20.25. The legal rights that constitute money may pass electronically. However, (except in the case of Bitcoin, which is a foreign currency for the reasons set out at paragraphs 20.4.3 to 20.4.5) in crypto there are no legal rights that can be transferred by way of electronic transfer:
- 20.25.1. There is (typically) no contractual relationship between the parties, and it is intended that there is none. In the absence of some contractual rights, or property rights (which shall be discussed shortly) there can only be a transfer of money if there is some State sanctioned basis for those rights, as there is in the case of currency;
- 20.25.2. “Off chain” contracts can be used to create a hybrid of contract law and crypto transaction. But in the absence of traditional contractual relationship (which arguably reduces the efficacy of the crypto contract) there is little more than a ledger;
- 20.25.3. There may be some legal rights where an intermediary holds the wallet within which the crypto is stored, or is undertaking an exchange of one crypto for another. This relationship is analogous to the relationship between banker and customer, and the rights that flow from it will be limited to the contract to perform particular transactions; the relationship does not somehow imbue the crypto ledger itself with any inherent rights;

- 20.25.4. A contract between banker and customer is a chose in action that may be dealt at law, with examples given in paragraph 20.9.1; and
- 20.25.5. Debiting or crediting a bank or accounting ledger does not dispose of any asset, as the chose in action that is contract between banker and customer remains.

### **Crypto for Payments**

21. Does the lack of status as money for most crypto affect its utility for being used to make a payment and to satisfy obligations?

### **Currency**

- 21.1. currency is a chattel that by the force of law is connected to rights that can satisfy a financial obligation. Presenting a \$20 note at a petrol station is legally accepted as satisfying the financial obligation to pay for the \$20 worth of petrol pumped into your vehicle;
- 21.2. payment will not be complete or timely unless it is in cash or the equivalent, which will be an unconditional right to cash, unless contrary indication in contractual documents, statutory rules or established commercial custom or usage exist;<sup>33</sup>

### **Electronic Transfers**

- 21.3. an electronic transfer is an example of parties agreeing that they will accept money in some other form than legal tender. Handing a plastic card to a cashier is not offering legal tender – the cashier can refuse it. Rather, the cashier has contractually agreed with its customers that in addition to legal tender, it will accept payment in some other form, such as a credit card. Credit cards and similar payment methods are governed by rules and practices between bank, merchants and customers;

### **Time of Electronic Transfers**

- 21.4. absent an express rule on that question, a funds transfer is complete:
- 21.4.1. at the latest when the transferee institution is notified of the funds being available for credit of a specified customer; and
- 21.4.2. arguably, when the transferor institution commences the process of acting on its customer's instructions (usually by initiating a computer program);
- 21.5. provided in each case that the transfer instructions are irrevocable. On either view, consent of, or action by, the transferee is not essential;<sup>34</sup>
- 21.6. absent such express provisions, the authorities suggest that is the time of execution of a transfer mandate by the transferee institution that will determine time of payment, not the time of receipt of the transfer order or time of dispatch by the transferor institution of the transfer order.<sup>35</sup> This principle creates tension with the authorities if it permits a transferor institution to countermand payment after the transferee

<sup>33</sup> *A/S Awilco of Oslo v Fulvia SpA di Navigazione of Cagliari (The Chikuma)* [1981] 1 WLR 314 (HL) payment did not earn interest immediately.

<sup>34</sup> *Momm v Barclays Bank International Ltd* [1977] QB 790; *Royal Products Ltd v Midland Bank Ltd* [1981] 2 Lloyd's Rep 194 (QBD), both distinguishing *Rekstin v Severo Sibirsko* [1933] 1 KB 47 (CA)

<sup>35</sup> *Mardorf Peach & Co Ltd v Attica Sea Carriers Corp of Liberia (The Laconia)* [1977] AC 850; *Tennax Steamship Co Ltd v The Brimnes (The Brimnes)* [1975] 1 QB 929

institution has been notified of the transfer, but before that institution has executed the transfer so as to put in train the events which will give credit to its customer. The authorities have emerged in contexts which do not directly address the tension and may be limited to their specific circumstances;<sup>36</sup>

- 21.7. in addition, it has been held that a telex transfer, if irrevocable, is complete when the telex message is received and tested by the transferee institution;<sup>37</sup>
- 21.8. an electronic transfer is therefore not instantaneous. Transfer, and hence payment, occurs at the time when the transferring institution (e.g. a bank) notifies the receiving institution (e.g. another bank) of the transfer. With small transfers this typically occurs overnight;<sup>38</sup>
- 21.9. a payment which falls due on a non-business day will be late unless it is made before the close of the preceding business day. Confirmed acceptance of receipt by the transferee institution of a transfer will not bind the customer to acceptance of the transfer until the customer has been notified and has had reasonable time to give instructions to the transferee institution;<sup>39</sup>

#### **Accepting payment in other means rather than legal tender**

- 21.10. a creditor can waive his or her right to be paid in legal tender if the creditor asks for payment by cheque or some other means.<sup>40</sup> Absent of such a request, a tender of payment by cheque or other negotiable instrument does not satisfy the requirements of payment by legal tender. A cheque or other negotiable instrument is money but is not legal tender and is not sufficient to make a payment that extinguishes a financial obligation;
- 21.11. tender by cheque, other negotiable instrument or other means may be provided for by contract or by statute (such as for the purchase of a home, car or business). In *George v Cluning* (1979) 53 ALJR 767; the High Court held that, on a proper assessment of the facts and proper construction of the option contract in question, payment could be done by the optionee's personal cheque. Mason J with whom Aickin J agreed, said at 62;

*The practice of giving and accepting personal cheques in payment of debts and liabilities is now so widespread that there is a general expectation on the part of persons making payments that a personal cheque ... will be accepted unless the payee objects before or at the time of receipt that the cheque does not constitute legal tender.*

#### **Electronic Payments and Crediting an Account**

- 21.12. *Equuscorp v Glengallan Investments* is a case that concerned a tax effective managed investment scheme that resulted in a dispute between the participants. In that case, a bank electronically debited its account and credited the account of the

<sup>36</sup> See eg, the use of the phrase "for present purposes" in *Momm v Barclays Bank International Ltd* [1977] QB 790; [1977] 2 WLR 407, Kerr J at 802-803 (QB) and note that the purported revocation by the transferor bank was on the next succeeding business day after completion of the transferee's processes for crediting its customer's account.

<sup>37</sup> *Afovos Shipping Co SA v Pagnan (The Afovos)* [1982] 1 WLR 848 (CA)

<sup>38</sup> For the potential effect of this, see *Liwszyc v FCT*

<sup>39</sup> *Mardorf Peach & Co Ltd v Attica Sea Carriers Corp of Liberia (The Laconia)* [1977] AC 850, Wilberforce LJ at 871; *Afovos Shipping Co SA v Pagnan (The Afovos)* [1982] 1 WLR 848 (CA), Kerr LJ at 859

<sup>40</sup> *Cubitt v Gamble* (1919) 35 TLR 223



participants (structured together as a partnership). The partnership drew cheques on its account and paid management fees to two entities connected with the scheme. Those two entities then drew cheques equal to the fees and deposited them with the same bank as on call deposits. This was all done on the same day and at the same time;

21.12.1. as part of the dispute, the disgruntled participants claimed that the arrangement was a sham and that they had never been lent money to invest in the scheme. As they were never lent money, they had no obligation to repay (so they alleged). The High Court held that the arrangement was legally effective. The High Court held the participants (and the junior courts beneath the High Court) focussed too much on the economic substance of the transaction, not the legal effect. The fact that no 'real money' (a term used in that case) did not change hands was not relevant. The debiting of the banks account and the crediting of the partnership account (which constituted the participants) effected an exchange of money. This electronic transfer was sufficient to create a legal obligation on the participants to repay the bank;

21.12.2. the transactions in Equuscorp occurred in 1989. The electronic movement of money is now so common that it can hardly be said that debiting one account and crediting another does not create a movement of money and extinguishment of or creation of a debt;

#### **Set off, by delivery of goods, by a bond, by cheque or bankers draft or book entry**

21.13. *York Street Mezzanine v FCT* is another tax case. York Street discussed the law concerning promissory notes. The court considered that the ordinary rule is that to discharge a bill of exchange, and also a promissory note, the issuer is required to make a payment in money to the payee or bearer. In other words, the payment must be in legal tender (money) or by the transfer of a money fund;

21.13.1. the court further went on to discuss that this method of payment is highly inconvenient especially where large sums of money are concerned and it is therefore not uncommon to see parties to a bill of exchange or promissory note, agree that payment be made by some other means which is commercially acceptable. Not surprisingly, it has been held that parties to a note may agree that the note can be satisfied by other means than legal tender (money). In this sense, (that is agreement) the law relating to bills and notes is brought in line with contractual principles. The result is, that by agreement, payment of money due under a bill of exchange can be made by set off, by delivery of goods, by a bond, by cheque or bankers draft or even book entry;<sup>41</sup>

21.13.2. on book entries, the court stated that there is every reason to permit a payment to be made by book entry and stated at [26] that "*often it [book entry] is simply a short-hand for money or a cheque being handed across the table and money or a cheque being handed back. It would be entirely inconsistent with modern commercial life if a payment due by one person to another could not be effected in this manner.*" It would seem that all that is

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<sup>41</sup> See *Pease v Hirst* [1829] EngR 776

required is an actual agreement by the relevant parties that payment be made by means of entries in books of account;

- 21.13.3. where payment is to be made to a person and that person is to retain the funds, as opposed to making immediate payment elsewhere, it is unlikely that a book entry will be sufficient to make that payment. In that circumstance, a book entry will record a payment as opposed to effect a payment;

#### **Payment or Satisfaction by way of Crypto**

- 21.14. The cases set out above show that:

21.14.1. Payment must be accepted if it is by way of legal tender. Crypto is not legal tender (except in El Salvador);

21.14.2. Satisfaction may by agreement between the parties be by way of something other than legal tender, including by electronic transfer of rights through banking intermediaries or book entry; and

21.14.3. For payment by way of crypto:

21.14.3.1. **IF** crypto **DOES** consist of some rights (e.g. Bitcoin as a foreign currency) **THEN** parties could agree to accept the transfer of those rights by way of ledger entry and could agree that those ledger entries constitute payment;

21.14.3.2. **IF** crypto **DOES NOT** consist of any rights **THEN** the satisfaction would be by way of the other party taking the action to record the transfer on the ledger.

#### **Crypto as Property**

22. There are a number of competing legal definitions of what constitute property. I shall now summarize those leading definitions and then examine crypto in accordance with them:

#### **Recognised Category Test**

- 22.1. In *Victoria Park Racing and Recreation Grounds Co Ltd v Taylor*<sup>42</sup> the majority of the High Court held that there was no property in a spectacle. A person does not own a race conducted on his or her land so as to prevent others from viewing the race from neighbouring land and commercially exploiting information as to the outcomes. In explaining his reasons for joining the majority, Dixon J stipulated that only rights in previously recognised categories could be property:

#### **Chose in Possession**

- 22.1.1. Crypto are intangible assets and plainly not *chose in possession*. A printed public and private key, or a cold storage wallet, could be a tangible object but their value would be limited to the value of the paper or the storage device and would not be affected by their intangible contents.

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<sup>42</sup> (1937) 58 CLR 479

- 22.1.2. The 1's and 0's that constitute software could be considered a form of *chose in possession* at the sub-atomic level, but their changing binary state would not allow any kind of acquisition or disposal of that property;

#### Chose in Action

- 22.1.3. Hybrid crypto with off-chain contracts may be a *chose in action*. Where there is both an electronic crypto program and an external contract, a legal relationship is created between the contracting parties in the same manner as any other contract. The terms of the off-chain contract will create the legal relationship, and its terms will supersede the crypto programming. The parties could agree to be bound by the results of the crypto program;
- 22.1.4. In the absence of a separate contractual agreement between parties the operation of software does not create any rights between the parties. Indeed, the whole point of crypto is that it is self-executing and does not rely on a legal basis for enforcement. The parties expressly do not wish to create a legal relationship between each other and instead wish to rely on governing their state of affairs by the results of a program;
- 22.1.5. Similarly, players of video games like Space Invaders do not have an intention to create legal relations for the accumulation (or loss) of their points. Indeed, the points accumulated in video games come closer to being *chose in action* because there may be some express or implied right of functionality in the software. Particularly for distributed crypto which may have no central creator (or no known creator at all in the case of Bitcoin) then whatever the program does, it does. There is not even an obligation for the crypto to correctly function in its recording of points;

#### New Category of Property

- 22.1.6. There are cases when some intangible objects of value were recognised to be property: a milk quota in *Dairy Swift v Dairywise Farms Ltd*,<sup>43</sup> an EU carbon emissions allowance in *Armstrong v Winnington*<sup>44</sup> despite the fact that neither of them can be classified as a *chose in action* or *chose in possession*. However, these are State sanctioned rights, and more than mere information and computer code;

#### Confidential Information

- 22.1.7. A private key is confidential information, like the PIN for a bank account, or the password for some software. In relation to whether confidential information is property:

#### *Oxford v Moss*

- 22.1.7.1. In *Oxford v Moss*<sup>45</sup> a university engineering student unlawfully obtained an examination paper, read it and then returned it. The Court distinguished between the exam information (which was not property) and the paper medium (which was property). It held that the confidential information did not fall within the

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<sup>43</sup> [2000] 1 WLR 1177

<sup>44</sup> [2012] EWHC 10, [2013] Ch 156

<sup>45</sup> (1979) 68 Cr App R 183 (QB)

definition of “property” under the Theft Act 1968 (UK), so a conviction of theft was unable to be upheld;

*TS & B Retail Systems Pty Ltd*

- 22.1.7.2. In *TS & B Retail Systems Pty Ltd v 3Fold Resources Pty Ltd (No 3)*,<sup>46</sup> a case which involved claims over manufacturing drawings and data tables, it was held that confidential information was not property but rather something which was “*protected by equity by ‘the notion of an obligation of conscience arising from the circumstances in or through which the information was communicated or obtained’*”;

*Mustad & Son v Dosen*

- 22.1.7.3. In *Mustad & Son v Dosen*<sup>47</sup> the liquidator of a company sold to the appellant the company’s business including the benefit of trade secrets. One of the former employees took up employment with a competitor, with the intention of passing on trade secrets to his new employer. The appellants obtained an injunction to restrain the disclosure. Accordingly, although confidential information is not property and hence is not capable of being assigned, it now seems to be accepted that confidential information can be passed on by one person to another, and the person to whom it has been imparted can take action to protect the information;

*PanContinental Mining Limited*

- 22.1.7.4. In Australia it was held in *PanContinental Mining Limited v Commissioner of Stamp Duties*<sup>48</sup> that confidential information is not property. The Court acknowledged that “*Although knowledge or information obtained or derived from exploration activities on a mining tenement is not, of itself, real or personal property, the knowledge or information may, undoubtedly, be valuable.*”
- 22.1.7.5. Valuable confidential information, that is not property, seems to fit precisely the definition of a private key;
- 22.1.7.6. The blockchain ledger is typically public, and so the ledger itself is not confidential information. If it was private it would nevertheless not be property for the reasons set out above;

Copyright

- 22.1.8. By using software to generate the public and private key, the creator of those keys has the copyright in that authored material. The rights of authorship in those keys may be assigned in accordance with s239 of the *Copyright Act 1968* (Cth). That is, there is the possibility for assignment of the keys regardless of whether there is a contract of banker and customer

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<sup>46</sup> (No 3) [2007] FCA 151

<sup>47</sup> [1964] 1 WLR 109

<sup>48</sup> [1989] 1 Qd R 310

with a wallet provider or some other intermediary. An assignment of this kind would be for the keys and their usage, and not for individual crypto accessible by those keys;

- 22.1.9. In the case of the creation of new crypto by way of mining, staking or programmatic creation at the instigation of the recipient there will be copyright in the resulting new crypto:
- 22.1.9.1. If this crypto is on a public ledger then the copyright will immediately abandoned to the public domain;
- 22.1.9.2. If the crypto is mixed with other crypto then the admixture of created and other crypto will be unable to be unscrambled and so will lose its copyright. Therefore if a miner 50 new tokens into an account that already has 100 then the 150 tokens will lose their copyright; and
- 22.1.9.3. Where the blockchain ledger is private and the crypto is kept separate from other holdings then there will be a copyright in the crypto itself;

### **Excludability**

- 22.2. The right (or privilege) to exclude others is often described as the most fundamental of all property rights. "*Property is a relationship among humans, with the owner entitled to exclude others, or to permit others to engage in them and entitled to secure the assistance of law in carrying out that decision*".<sup>49</sup> In relation to crypto:
- 22.2.1. At first examination the ability of the holder of a private key to exclude others from their account may give crypto an appearance of property given that account access is excludable. There may be the ability to legally exclude others from the use of a private key that constitutes confidential information. Otherwise, the exclusion is physical by way of prevention of access;
- 22.2.2. The difficulty with this analysis is that every piece of software or information that is password protected becomes property: a saved game of Space Invaders that requires a login, the content in a Facebook account, and an excel spreadsheet with password protection. An enormous fragment of our semi-digital existence becomes property;
- 22.2.3. A record on a public ledger is not excludable, as others may view it. Although others may not easily alter it, it does not seem to me different to posting the collected works of Shakespeare online in a read-only format and stating that that is now my property. This does not sit easily with established copyright law; and
- 22.2.4. Although blockchains are described as immutable, they are not always. They can be altered, and their governing rules varied, in accordance with consensus mechanisms. Or in the manner of the hard fork of The DAO for Ethereum. Although excludability under every circumstance is not required

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<sup>49</sup> Felix Cohen, 'Dialogue on Private Property' (1954) 9 Rutgers Law Review 357; See also Thomas W Merrill, 'Property and the Right to Exclude' (1998) 77 Nebraska Law Review 730; R C Nolan, 'Equitable Property' (2006) 122 Law Quarterly Review 232 at 235

for something to become property, it should be noted that mere password protection is not as infeasible as it might appear;

### **Definition from *Ainsworth***

- 22.3. in *National Provincial Bank v Ainsworth* Lord Wilberforce defined “property” with a number of necessary characteristics:

*It must be definable, identifiable by third parties, capable in its nature of assumption by third parties, and have some degree of permanence or stability.*<sup>50</sup>

### Cryptopia and Ainsworth

- 22.3.1. In applying these four factors to cryptocurrencies in *Cryptopia*,<sup>51</sup> Gendall J found that cryptocurrencies could satisfy all four criteria and were therefore property at common law:

- 22.3.1.1. First, his Honour found that cryptocurrencies are definable. They consist of computer-readable strings of characters recorded on a network of computers that are distinct enough to be capable of being allocated to a specific account holder on the network;
- 22.3.1.2. Second, cryptocurrencies can be identified by third parties. The string of data recording the creation and transactions in cryptocurrency are allocated by a public key to an account holder on the system. This key then needs to be matched with a private key. The private key is held by the account holder and acts like a PIN. This makes the cryptocurrency excludable;
- 22.3.1.3. Third, his Honour found that cryptocurrencies are capable of assumption by third parties, evidenced by the active market for cryptocurrencies; and
- 22.3.1.4. Fourth, his Honour found that cryptocurrencies had some degree of permanence or stability. This was facilitated by the blockchain technology itself.

Addressing each of these in turn:

### Definable

- 22.3.2. Points in *Space Invaders* are definable. If there is a user login then those points are allocated to a particular account holder. The underlying code that sets points and numbers in a ledger is functionally identical: it is a mere counting and recording mechanism (see further at 22.4 below). There is nothing particular in crypto that makes it any more or less definable than any other software ledger. The ability to count and record that counting is a central building block of all computation, including ancient mechanical calculators. Indeed, an abacus can be used to count and record;

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<sup>50</sup> [1965] 1 AC 1175, 1248

<sup>51</sup> *Ruscoe v Cryptopia Limited (in liquidation)* [2020] NZHC 728

### Identifiable

- 22.3.3. Identifying information on a ledger does not make it property. Every piece of text is identifiable as containing some type of data. Data may attract copyright, but that is not the claim here. Excluding write access does not make mere information into property;

### Assumption by Third Parties

- 22.3.4. Electronic data is not capable of assumption by or transmission to third parties. The data is destroyed, and then created anew, like person in a Star Trek transporter. The *information* contained in that data is capable of transmission, as is all information;
- 22.3.5. there may be circumstances when a proprietary interest is inalienable, such as Qantas frequent flyer points;
- 22.3.6. That there are active markets for effecting trade of crypto is perhaps a mischaracterisation, for the reasons set out in paragraph 18. More accurately, there is active *gambling*, and crypto is the ledger by which that gambling is measured;
- 22.3.7. Crypto holders are anxious to increase the number and value of crypto they have. Video game players are equally anxious to increase the number and value of points that they accumulate. Just because there is value does not mean that there is property;

### Permanence

- 22.3.8. The purpose of the public ledger is to overcome a potential trust issue. The idea that this creates permanence is misguided. By way of example, **92%** of blockchain projects fail and the average lifespan is **1.22** years.<sup>52</sup> Crypto projects need to have sufficient adoption and price rises in order to encourage further speculation and adoption. They are also beholden to the maintenance and development of the programmers who ensure their operability on fast changing software environments as well as their increase in functionality and technical advancement;
- 22.3.9. There is an argument of permanence that could be made based on the *Lindy effect* whereby the expected lifespan of some non-perishable thing is proportional to its current age.<sup>53</sup> Under that view, a crypto like Bitcoin that has been in existence since **January 2009** could be expected to last another **13** years. Whereas a crypto like Dogelon Mars which has been in existence since **April 2021** could be expected to last another **10 months**. (The three test ERC-20 tokens that I created while writing this submission have all already been abandoned.) The argument is that after some period of time the *Lindy effect* would imbue an expectation of semi-permanence, and hence more likely to be property. After being a successful (yet volatile) store of value Bitcoin (and perhaps some other coins or networks with large capitalisation) could have some *de-facto* permanence;

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<sup>52</sup> <https://bitcoinist.com/92-blockchain-projects-already-failed-average-lifespan-1-22-years/#:~:text=The%20China%20Academy%20of%20Information,lifespan%20of%20roughly%201.22%20years>

<sup>53</sup> [https://en.wikipedia.org/wiki/Lindy\\_effect](https://en.wikipedia.org/wiki/Lindy_effect)

- 22.3.10. The *Lindy effect* is merely a mathematical distribution prediction, and does not of course guarantee a certain lifespan. Bitcoin could easily have another episode like the Value Overflow Incident in which a technical vulnerability required a forking of the system in order to prevent its destruction;<sup>54</sup> and
- 22.3.11. Space Invaders, which has been in existence since **1978** should be expected to last another **44** years under the *Lindy effect*. The points that some user has accrued as a high score on an arcade game that remains continuously saved would on this argument be more like property than any crypto;

### Bitcoin Ledger vs Space Invaders Points

- 22.4. Just as we should examine the terms of a contract or legislation to understand its meaning, so too should we examine directly the similarity between a crypto ledger and points in Space Invaders:

#### Space Invaders Points

- 22.4.1. An example of Space Invaders,<sup>55</sup> written in the old x86 machine language, defines the “score” as a memory variable to be counted by “*score sdword 0*”. Whenever there is a space invader destroyed the score is added to, for example “*add score, 500*”. The final score is then printed as follows:

```

PRINT_SCORE PROC
.data
    msg_score          byte    "Score: ",0,msg_speed          byte
    "Game Speed: ",0.code
    mov                dh,msg_bottom
    mov                dl,msg_right
    call    Gotoxy                    ;position cursor
    mov                edx,OFFSET msg_score
    call    WriteString                ;write
"Score: "mov                eax,score
    call    WriteInt                    ;write the value
;-----mov                dh,msg_bottom
    inc                dh
    mov                dl,msg_left
    call    Gotoxy                    ;position cursor
    mov                edx,OFFSET msg_speed                ;write
"Game Speed: "call    WriteString
    mov                eax,70sub                eax,delay_time
    call    WriteDec                    ;write the value
    ret
PRINT_SCORE ENDP

```

- 22.4.2. This procedure looks up the score and displays it on the screen;

<sup>54</sup> [https://en.bitcoin.it/wiki/Value\\_overflow\\_incident](https://en.bitcoin.it/wiki/Value_overflow_incident)

<sup>55</sup> See the full example code at <https://www.daniweb.com/programming/software-development/code/216780/space-invaders>



Crypto Public Ledger

- 22.4.3. A crypto ledger will similarly add to or subtract from a user's balance. The following is an example of how to look up the Bitcoin ledger amount of a particular address, written in the language C#.Net:

```

"public decimal CheckBalanceLocal(BitcoinPubKeyAddress address)
{
var node = Node.ConnectToLocal(Network.Main);
node.VersionHandshake();
var chain = node.GetChain();
var store = new BlockStore(@"F:\Program Files\Bitcoin\Cache\blocks",
Network.Main);
var index = new IndexedBlockStore(new InMemoryNoSqlRepository(),
store);
index.ReIndex();
var headers = chain.ToEnumerable(false).ToArray();
var balance = (
from header in headers
select index.Get(header.HashBlock)
into block
from tx in block.Transactions
from txout in tx.Outputs
where txout.ScriptPubKey.GetDestinationAddress(Network.Main) ==
address
select txout.Value.ToDecimal(MoneyUnit.BTC)).Sum();
return balance;
}

```

Where is the Property?

- 22.4.4. While the above two examples are not readily intelligible to a person who is not fluent in the particular programming language that they are written in (x86 and C# respectively) if the latter is to be treated as property, and the former not, then there must be some identifiable distinction between them:

- 22.4.4.1. Is it the programming language? Space Invaders could equally be written in C# so that cannot be;

- 22.4.4.2. Is one more definable than the other? They both record a ledger and look it up and display it;
  - 22.4.4.3. Is one more identifiable than the other? The output of a number is the same;
  - 22.4.4.4. Is one more capable of assumption by third parties? Neither are, as it is simply a display of a ledger; and
  - 22.4.4.5. Is one more permanent than the other? Each will last until the computer or computers that are running it are switched off or the counter reset to zero;
- 22.4.5. In relation to a contract, or legislation, or title, the property is readily identifiable; it may be the words “A and B hereby agree”, “the Parliament hereby enacts” or “title is registered”. In each case an examination of the precise words elicits whether there is property or there is not;
- 22.4.6. If crypto is property then there must be some identifiable difference between the ledger in Space Invaders and the ledger in Bitcoin. Otherwise every record of points will become property, which is a truly non-sensical and disruptive outcome. The display on a calculator, the number of “likes” on a Facebook post, the alert showing the number of unread emails in an inbox, all use a similar counting, lookup and display program. These are not considered property, and neither should the ledger of a crypto program.

### **Crypto Case Law**

23. There have been a number of authorities that have considered whether crypto is property, to various degrees of depth:<sup>56</sup>

### **Injunction Cases**

- 23.1. One theme has been a number of freezing orders or injunctions that have been sought in relation to crypto. The urgent nature of them has limited their ability to review whether crypto is property:

#### **Vorotyntseva v Money-4 Ltd**

- 23.1.1. There,<sup>57</sup> Birss J sitting in the Chancery Division of the English High Court granted ex parte a proprietary freezing order over some bitcoin and ethereum currency, stating that the defendant in that case had not suggested that “cryptocurrency cannot be a form of ‘property’”. No further discussion took place on the point;

#### **Shair.Com Global Digital Services Ltd v Arnold**

- 23.1.2. In a not dissimilar Canadian decision, *Shair.Com Global Digital Services Ltd v Arnold*, the Supreme Court of British Columbia granted an ex parte preservation order to the plaintiff company against its former chief operating officer with respect to digital currencies that might still be in the defendant’s possession. Without providing any reasoning the Court accepted that

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<sup>56</sup> For convenience of analysis some summaries have been taken from the judgement in *Cryptopia*

<sup>57</sup> *Vorotyntseva v Money-4 Ltd* [2018] EWHC 2596 (Ch)

cryptocurrencies could be property within the rules for preservation orders, noting that in the correspondence between the parties that had been filed for the proceeding the defendant had not denied that the plaintiff had an interest to pursue;

Liam David Robertson v Persons Unknown

- 23.1.3. In this decision<sup>58</sup> of Moulder J in the English High Court an asset preservation order was granted over cryptocurrencies;

AA v Persons Unknown

- 23.1.4. a decision of the English High Court in *AA v Persons Unknown*<sup>59</sup> also held that cryptocurrencies are “property”. There, Bryan J granted an interim proprietary injunction against a cryptocurrency exchange over bitcoin which represented proceeds of ransom monies paid out to a hacker by the applicant insurance company. The hackers had installed malware into the insurance company’s computer system, and demanded the company pay a ransom in bitcoin, to regain access to its system. The ransom was paid in bitcoin and transferred into the exchange. The insurance company applied to the Court for an interim proprietary injunction against the exchange over the bitcoin, amongst other things;

CLM v CLN and others

- 23.1.5. In this case,<sup>60</sup> an *ex parte* injunction and freezing order was sought for Bitcoin and Ethereum that were transferred following the theft of recovery seeds for a hot wallet. The Court relied on the *Ainsworth* definition of property as examined in *Cryptopia* and considered that cryptocurrencies are property and hence could be protected via a proprietary injunction;
- 23.1.6. Having *Cryptopia* as precedent in another jurisdiction for an urgent injunction where the proprietary nature of crypto would otherwise go unconsidered highlights the importance of properly considering its problems;

**Chen v Blockchain Global Ltd**

- 23.2. Following on from the foreign freezing order cases that have treated crypto as property has been a recent Australian case<sup>61</sup> that has approached the preservation of property in a quite different manner. And in my view a much more suitable manner, both in relation to a legally correct treatment of mere information, and also efficacious in preserving crypto and other intangibles:

- 23.2.1. The issue at hand was whether it should make an order by making orders concerning the seed phrases (or passwords) for the security wallet bearing the address 3JcX4jengY4Gw8EfsZtKY5CXc6Nb9j9Z3x that contain 117.33 Bitcoins, valued at approximately **\$10.3M**;
- 23.2.2. The Security Wallet is a ‘2 of 2’ wallet which means that 2 out of 2 signatories need to authorise a transaction to make a transfer out of it. As a result, the Bitcoins are accessible only by Mr Chen and Mr Guo entering

<sup>58</sup> CL-2019-000444, unreported, 15th July 2019

<sup>59</sup> *A v Persons Unknown* [2019] EWHC 3556, [2020] 4 WLR 35

<sup>60</sup> *CLM v CLN and others* [2022] SGHC 46

<sup>61</sup> *Chen v Blockchain Global Ltd; Abel v Blockchain Global Ltd* [2022] VSC 92

their respective seed phrases into certain software. A seed phrase is a unique twelve-worded password. In the event that the seed phrase of Mr Chen or Mr Guo is lost, forgotten or corrupted, the Bitcoins will become inaccessible. That would be tantamount to the Bitcoins, in effect, being destroyed as they would have no value. Mr Wodak, counsel for Mr Guo, further submitted, correctly, that *'the very essence of this asset [the Bitcoins] and its security is the confidentiality of the two seed phrases'*;

23.2.3. The Court considered the risk of destruction of the Bitcoin, which necessitated the preservation order:

*"there is a real risk that the Bitcoins may be, in effect, destroyed given the following matters:*

- (a) Mr Guo cannot recall the seed phrase;*
- (b) Mr Guo only has one record of the seed phrase, constituted by a single piece of paper;*
- (c) Mr Guo considers there is a risk that someone may seek to obtain it by force, including by a person demanding that he provide it to them;*
- (d) Mr Guo has not given evidence concerning the location of the piece of paper (except that it is somewhere in China);*
- (e) Mr Guo has not given evidence why he considers that the location is 'safe';*
- (f) Mr Guo gave evidence that: 'I cannot be certain that the Seed Phrase remains where I left it, and remains recoverable.' This contradicts, in part, his evidence that it is stored 'safely';*
- (g) Mr Wodak correctly submitted: 'I cannot submit to the court that there is no risk, where the seed phrase is stored now, of course there is some risk';and*
- (h) in the event that the piece of paper that records Mr Guo's seed phrase is lost, the Bitcoins will, in effect, be destroyed. They will not be able to be accessed. They would have no value."*

23.2.4. Instead of attempting to treat the Bitcoin as property and making an order in relation to that property, the Court ordered a more direct, and technically more effective, method of preservation:

- "(a) Mr Chen and Mr Guo each copy their seed phrase into a document by late January 2022;*
- (b) Mr Chen and Mr Guo each provide their document to their solicitors in the Chen proceeding and for their document to be then placed in an envelope to be stored in a safe place by their solicitors;*
- (c) an order giving Mr Chen or Mr Guo the opportunity to explain any non-compliance with the orders;*
- (d) Mr Chen's summons to be otherwise adjourned; and*

(e) matters concerning verification and who ultimately has control of the documents recording the seed phrases may be addressed at the adjourned hearing.

5. For reasons I will now give, I am satisfied that orders should be made pursuant to r 37.01(1) of the Rules that substantially accord with the Court's proposed orders. This will preserve the Bitcoins until the issues in dispute between the parties in these proceedings are determined. Justice demands that such orders are made."

- 23.2.5. This is more practically effective, because as can be seen there is a lack of ability to control the Bitcoin and the wallet. Either party could cause the immediate destruction of the Bitcoin by losing (or losing control of) the confidential information that is the seed phrases. Given the distributed nature of the Bitcoin and the wallet there is no entity that can be ordered to freeze the Bitcoin (in the manner that a freezing order could be made against money held in a bank);
- 23.2.6. Instead, the better remedy is an *in personam* order against Mr Chen and Mr Gou to take some action in relation to their confidential information. They are persons who are capable of having orders enforced against;
- 23.2.7. Importantly, an *in personam* remedy accords with previous authority on confidential information<sup>62</sup> and *does not disrupt* the treatment of other forms of information and software, in the way that deeming points to be property does;

#### **Commissioner of the AFP v TK**

- 23.3. This Australian case<sup>63</sup> continues to prioritise first principles in its treatment of crypto assets, and accords with the cases set out at paragraph 20.9 above. In this application for a restraining order in relation to the proceeds of crime, the property identified in relation to crypto is the *chose in action* between customer and exchange, and the restraining order is granted *inter alia* over those rights:

*"I note that the types of property specified include, in schedule 14, cryptocurrency stored in an exchange account held in the name of the first defendant. The way in which that property is sought to be the subject of a restraining order by the Commissioner is on the basis that the terms on which it is held in the exchange account give rise to an obligation similar to the position with an ordinary bank account involving what I might term "real currency". On that basis, the Commissioner contends that the cryptocurrency account gives rise to a chose in action enforceable against the entity with which the account is held." [emphasis added]*

#### **B2C2 Ltd v Quoine Pte Ltd**

- 23.4. The case<sup>64</sup> concerned a Singaporean cryptocurrency exchange operated by Quoine, on which B2C2 was a trader. Some trading was set up to occur automatically through computers connected to the exchange and was pre-programmed. The transactions which led to the litigation were conducted by way of algorithms created by Quoine and by B2C2. The trades in question resulted from pre-programmed requests to exchange

<sup>62</sup> See for example *Mustad v Dosen*, described earlier at paragraph 22.1.7.3

<sup>63</sup> *Commissioner of the Australian Federal Police v TK* [2022] ACTSC 196

<sup>64</sup> *Quoine Pte Ltd v B2C2 Ltd* [2020] SGCA(I) 2 [B2C2 (SGCA)]

cryptocoins of ethereum for bitcoin. Errors occurred in the programming and an unusual set of circumstances resulted in B2C2's computer offering ethereum for bitcoin at the rate of one ethereum for 10 bitcoin. The computer of another trader on that platform accepted that bid, seven such trades taking place ("the disputed trades"). The going rate of ethereum for bitcoin in the market at the time was one ethereum for 0.04 of a bitcoin. The effect of the automatic trading was that B2C2 sold ethereum at about 250 times its appropriate price. Quoine became aware of the mistake. It then reversed the trades which led to the litigation.

23.5. B2C2 sued Quoine in the High Court for breach of the contract between it as a trader and Quoine as the operator of the exchange and for breach of trust as a result of Quoine's having returned the bitcoin to the counterparty. A defence of mistake was raised in that Court but Thorley IJ held there was no basis for setting aside the trading and Quoine was accordingly liable to B2C2 for having wrongly reversed the trades. He upheld both B2C2's contract claim and its claim for breach of trust.

23.6. That breach of trust claim could have succeeded only if the bitcoins in question were an asset that could form the subject matter of a trust. At the lower court level, Quoine had conceded that Bitcoin was a species of "property" but it did not concede that there was any trust. Thorley IJ considered that the concession on the "property" point was rightly made and in his judgment his Honour stated at 142 that:

*"Cryptocurrencies are not legal tender in the sense of being a regulated currency issued by government but do have the fundamental characteristic of intangible property as being an identifiable thing of value."*

23.7. However Quoine did not determine that the crypto was property, as it was not necessary for that to be decided:

*"There may be much to commend the view that cryptocurrencies should be capable of assimilation into the general concepts of property. There are, however, difficult questions as to the type of property that is involved. It is not necessary for us to come to a final position on this question in the present case. This is because even if BTC were to be regarded as a species of property which is capable of being the subject of a trust, we are satisfied that B2C2's breach of trust claim would fail because, contrary to what the Judge found, we consider there was no certainty of intention to create a trust."*

### **NZ Criminal Cases**

23.8. It seems to me that *Cryptopia* is strongly influenced by a line of peculiar New Zealand criminal law cases that considered intangibles as property for their Crimes Act. This should be a point of distinguishment for other jurisdictions, and also for the consideration of property in New Zealand for broader matters, including the facts of *Cryptopia* itself:

#### Dixon

23.8.1. In *Dixon v R*<sup>65</sup> the Supreme Court of New Zealand held that a digital copy of CCTV footage was "property" within the broad definition found in section 2 of the Crimes Act 1961. The defendant had downloaded a copy of certain footage without the consent of the owner of the computer on which the footage had been recorded. The court held that computer data can be

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<sup>65</sup> [2015] NZSC147

“property” and that making a copy of it involves a taking, even when the data is not protected by a password. On appeal, the Court of Appeal held that “*electronic footage stored on a computer is indistinguishable in principle from pure information*”, and “*if confidential information is not property digital footage cannot be*”;

- 23.8.2. The Supreme Court overruled the Court of Appeal’s decision, holding that digital files were in fact property because, as the Court summarised:

*“... digital files can be identified, have a value and are capable of being transferred to others. They also have a physical presence, albeit one that cannot be detected by means of the unaided senses.”*

#### Henderson v Walker

- 23.8.3. In the case of *Henderson v Walker*<sup>66</sup>, *Dixon* was applied in a private law setting and extended to the tort of conversion to purely personal information, including the content of private emails. Although merely making a copy of emails and other personal information would not amount to conversion, refusing access to them or destroying them would be nevertheless;

#### Rowland

- 23.8.4. In *Commissioner of Police v Rowland*,<sup>67</sup> the High Court of New Zealand approved a settlement made under the *Criminal Proceeds (Recovery) Act 2009* that included quantities of two cryptocurrencies – bitcoin and ethereum. The question whether the cryptocurrencies were “property” that was amenable to forfeiture under that legislation, however, was not raised in the proceeding. An assumption was made that they did fall within the definition in terms of that legislation.

#### Criticism of NZ Criminal Cases

- 23.8.5. These cases were criticised by Katherine Hu<sup>68</sup> in a comprehensive manner [footnotes omitted]:

*“With respect, however, this reasoning is unconvincing and has even been described as containing “numerous leaps of logic”. First, in the leading case of National Provincial Bank Ltd v Ainsworth, Lord Wilberforce defined “property” with a number of necessary characteristics: “it must be definable, identifiable by third parties, capable in its nature of assumption by third parties, and have some degree of permanence or stability”. The Dixon reasoning above only raises the attribute of being identifiable. Not only is this merely one of the many necessary attributes, it is not an attribute specific to property (evidently, just because a person can be identified does not mean they are property). Thus, being capable of being identified is hardly a convincing point for digital files to be treated as property.*

*Initially, the Supreme Court appeared to accept the physical-ness argument contained in the United States South Central Bell Telephone Company v Barthelemy case. There, software was considered physically recorded*

<sup>66</sup> [2019] NZHC2184

<sup>67</sup> [2019] NZHC 3314

<sup>68</sup> [Hu, Katherine --- "Property or not? Digital files under the criminal law" \[2017\] NZPubIntLawJl 5; \(2017\) 4 PILJNZ 106 \(austlii.edu.au\)](#)

*knowledge which had a physical existence on a physical storage device and was therefore tangible personal property. Subsequent cases in the United States also made similar rulings. Correspondingly, in R v Cox, New Zealand also accepted digital files as physical things. Putting two and two together, it seemed sensible to follow this line of logic and conclude that digital files are physical things which should be treated as property. But, in the more recent case of Thyroff v Nationwide Mutual Insurance Co, the United States Courts considered electronic databases as “pure intangibles”, and the basis for treating digital files as property shifted to their economic value.*

*the United Kingdom had continued to uphold the Oxford v Moss approach. In Your Response v Datateam Business Media, the issue concerned whether an electronic database could give rise to or support a lien. The answer was no. This was based on the nature of liens. Since digital databases were considered “intangible” property, they was incapable of forming a subject matter in tort that could be interfered with or possessed. The United Kingdom Court of Appeal held that there was a bright line between the information itself and the physical storage medium. Allowing a lien to arise in such a situation would therefore be contradictory to the traditional unwillingness to treat information as property, as shown in OBG Ltd v Allan. Notwithstanding, the above United Kingdom decisions turned on the concept of exclusive possession while Dixon did not (both Mr Dixon and the original owner had possession or control over the same files). And for that reason, Dixon can be justifiably distinguished.*

*The Supreme Court’s decision has also potentially “put the law significantly out of step with technology”. The nature of digital files means transfers can only be done through copying. So Dixon has indirectly brought the “copying” of digital files into the criminal scope of “obtaining property” while other forms of copying would not have similar criminal liabilities attached. For example, person A “owns” a digital image on their computer: in one situation person B transfers the digital image onto their own device, while in another situation person C takes a photograph of the digital image from their own device. The Dixon authority tells us (assuming all mental elements are present) that person B would be criminally liable for his actions while person C would likely not. This does not seem right as both would have essentially obtained the same material”*

### **Cryptopia**

- 23.9. *Cryptopia* concerned the liquidation of a cryptocurrency trading exchange, Cryptopia. It was placed into liquidation following a hack and a loss of **\$30M** of crypto from its exchange. The liquidators applied to the Court for direction on the categorization of assets, predominantly crypto worth about NZD 170 million. The question at hand was whether that crypto was held on trust for the accountholders of the crypto, or whether they were available for distribution to creditors. The accountholder had a relationship with Cryptopia similar to that of customer and banker;
- 23.10. I have analyzed earlier in this submission the central questions examined of whether crypto is property. But there is one important matter remaining: the comments of the Court that “*it is wrong in any event to regard cryptocurrencies as mere information*”. The reasoning behind that is twofold:



### Tradeable value

23.10.1. Firstly that:

*“The whole purpose behind cryptocurrencies is to create an item of tradeable value not simply to record or to impart in confidence knowledge or information. Although cryptocurrencies are not backed by the promise of a bank, the combination of data that records their existence and affords them exclusivity is otherwise comparable to the electronic records of a bank. The use of the private key also provides a method of transferring that value. This might be seen as similar in operation to, for example, a PIN on an electronic bank account.”*

23.10.2. This is problematic because:

23.10.2.1. The electronic records of a bank are not property. The property that exists in a bank account is the contract between banker and customer. To the extent that rights flow from one customer to another it is because of the State's creation of currency rights that are able to be transacted; and

23.10.2.2. Value is not a basis for creating proprietary rights. Love and affection are valuable. Points in Space Invaders is valuable. Use and enjoyment of software is valuable. Gambling is valuable;

### Words of a Contract

23.10.3. Secondly that:

*“cryptocoin is no more mere information than the words of a contract are. What allows a contract to be capable of being an item of property is not the words nor even the binding promise which is only a personal obligation, but the fact that equity recognises there is a unique relationship between the parties created by the words and then supplies a system for transferring the contractual rights. Similarly, a unique relationship and system of transfer exists with respect to the relevant data on the blockchain that makes up a cryptocurrency”*

23.10.4. This is problematic because:

23.10.4.1. Words of a contract are - in the absence of a contractual chose in action - at best copyright. They are otherwise mere information; and

23.10.4.2. It is the contractual relationship between the parties - the intention to create legal relations – that turns the words of a contract into a *chose in action*. For crypto there is an express or implied exclusion of an intention to create a legal relationship. Instead, reliance is placed solely on the operation of the software of the crypto.

### Summary

Although it may seem convenient or forward-looking to attempt to treat some technological advancement as a novel form of property, it is *more important* to maintain a cohesive common

law. This is the only way in which the law may be ready for the *next* technological advancement.

### **EXAMPLE OF CRYPTOCURRENCY INVESTING**

In order to show the difficulties with the present tax treatment of crypto it is helpful to use an example that is more realistic than the common “A uses BTC to pay B for goods C” or so on. Instead, the most predominant use for crypto is to purchase or invest in *other* crypto. This example is economically analogous to depositing money in a bank and gaining an interest return – and act which has certain and well defined tax consequences:

#### **Scenario Background**

24. The taxpayer Jarod (an individual) chooses the following investment options and pathways to earn a yield on his assets. The background is as follows:

#### **Starting Assets**

- 24.1. Jarod initially has the following assets:
- 24.1.1. **Start Date 1 July 2021:** Asset Prices: 1 BTC: \$50,000 USD
  - 24.1.2. **Holdings:**
    - 24.1.2.1. 2 BTC (\$100,000 USD in value) – All held “off chain”;
    - 24.1.2.2. \$100,000 USD – All held in Jarod’s bank account;

#### **Option 1**

- 24.2. Earning interest on this BTC and US by depositing them with a registered financial services provider, “BlockFi” and keeping his BTC on the BTC Blockchain;<sup>69</sup> BlockFi Interest APY – Paid Daily (Natively):
- 24.2.1. 2% against Jarod’s BTC, in BTC; and
  - 24.2.2. 4% against Jarod’s USD, in USD;

#### **Option 2**

- 24.3. Participating in some variant of “Yield Farming”/“Liquidity Pooling” on another blockchain. Jarod decides to use the Ethereum blockchain.<sup>70</sup> The Ethereum dAPP used offers a 100% APY;<sup>71</sup>

#### **Decision**

- 24.4. Jarod decides that he would like to split his risks up by trying both investment options simultaneously: **50%** on Option 1 and **50%** on Option 2. Jarod also decides that he

<sup>69</sup> These providers are operated like a “TradFi” bank and returns are generated on deposits by the same provider charging an interest rate for customers who wish to lend against their BTC collateral.

<sup>70</sup> As the Bitcoin Mainnet does not have any native DeFi (decentralised finance) applications, this requires Jarod to take his Bitcoin off the BTC Mainnet by “wrapping his Bitcoin” and utilising this form of the asset on another blockchain with DeFi dApps (decentralised applications).

<sup>71</sup> The APYs offered change regularly and vary WILDLY. Some APYs offered are as high as 86,000% (see: “Wonderland”)

will use two different methods of exchanging his BTC for Wrapped Bitcoin on Ethereum, WBTC (ERC – 20):

Option 2.A

24.4.1. Half of the allocated BTC will be swapped for WBTC (ERC – 20) on the Ethereum network on a registered cryptocurrency exchange;

Option 2.B

24.4.2. The remaining BTC will be bridged to the Ethereum network with a “cross-chain bridge” application. This is done by Jarod depositing his BTC with the bridge protocol as collateral and receiving his WBTC in return;

**Strategy**

24.5. Jarod decides that he would like to split his risks up by trying both exchange options simultaneously: 25% (total) in Option 2.A and 25% (total) in Option 2.B. All \$50,000 of the USD allocated to this half of the strategy is converted to the “stablecoin” USD (Tether) using the same exchange in Option 2.A. This cryptocurrency “version” of USD allows it to be used on various DeFi dApps. There are numerous alternatives.

**Transactions and Tax Analysis**

25. The steps to complete each of the transactions and the tax implications thereof are as follows. The “Current Tax Policy” is based on the publications of the ATO, and the “Correct Tax Analysis” is my view based on the legal principles set out earlier in this submission:

**Option 1 – Earning Interest in BlockFi**

25.1. In relation to Option 1:

Step 1 – Deposit Into BlockFi

25.1.1. BlockFi is a third-party custodian and operates like a traditional bank that KYCs its customers. Jarod sends his BTC from his BTC wallet to a BTC BlockFi address that he controls through his online portal.

25.1.1.1. **Current Tax Policy: UNCLEAR, LIKELY CGT EVENT A1.** It seems widely assumed that a transfer from a person individually to a third party that maintains an account for that person does not constitute a disposal. But:

25.1.1.1.1. If the BTC is treated as an asset like shares then a transfer from an individual to a broker who does not hold as a bare trustee will be a disposal (see GSTR 2008/3);

25.1.1.1.2. A deposit of physical fiat currency into a bank is a disposal of the CGT asset that is fiat currency, but its cost base and market value are the same so no consequences flow therefrom. Although a bank deposit is likely the most *economically* similar transaction, this is instead a disposal of BTC in exchange for an increase in a right to receive a BTC when called upon;

- 25.1.1.1.3. It seems to be assumed that a person owns the crypto that is in their accounts,<sup>72</sup> but this assumption is incongruent with their proprietary rights as against the account provider. This difference is recognised in the Forex provisions in the distinction between a foreign currency and a right to receive a foreign currency;
- 25.1.1.1.4. There are no CGT rollovers that appear to apply;
- 25.1.1.1.5. Even if the account provider expressly held the crypto on trust for the account holder, this would cause difficulties because the crypto is not property that is capable of being the subject to a trust, and accordingly the trust would fail, except for BTC, which is foreign currency because it is recognised in El Salvador;
- 25.1.1.2. **Correct Tax Analysis: FOREX REALISATION EVENT 1.**  
There is no property being disposed of as crypto is not property. However, BTC is the one present exception as a foreign currency and therefore is a disposal of a CGT Asset:
- 25.1.1.2.1. There is no acquisition of rights in BlockFi because the account was opened before the BTC is transferred, so it will be for **nil** consideration;
- 25.1.1.2.2. As foreign currency, there is a disposal of BTC, which is **Forex realisation event 1** under 775-40 ITAA97 in exchange for an acquisition of a right to receive foreign currency;
- 25.1.1.2.3. The market value substitution rule in s116-30 or 775-40(9) ITAA97 will apply to deem market value capital proceeds;
- 25.1.1.2.4. The treatment of BTC as a foreign currency is subject to the passage of *Treasury Laws Amendment Bill 2022: Taxation treatment of digital currency*. Once passed, the CGT provisions would apply instead;

#### Step 2 – Convert USD to USDT

- 25.1.2. Jarod is also able to send his USD to BlockFi as USD but is offered a higher APY if he exchanges his USD to USDT. Jarod decides to chase the yield and purchases USDT.

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<sup>72</sup> See for example PBR 1051820739965 where a taxpayer is assumed to have ownership of the crypto in their Binance account, which is contrary to the Terms of Service of Binance <https://www.binance.com/en/terms> which merely create a contractual right to direct Binance to conduct trades and not any purported interest in the underlying crypto.

- 25.1.2.1. **Current Tax Policy: ACQUISITION OF CGT ASSET USDT.** with a cost base equal to the USD spent;
- 25.1.2.2. **Correct Tax Analysis: NO EVENT.** There is no property being acquired – the BlockFi account, being the relevant CGT Asset, is set up before the transaction and so is not acquired:
- 25.1.2.2.1. The disposal of USD is ***Forex realisation event 1*** under 775-40 ITAA97;
- 25.1.2.2.2. The market value substitution rule in 775-40(9) ITAA97 will apply to deem market value capital proceeds;

### Step 3 – Withdrawal

- 25.1.3. After **12** months of **2%** against BTC and **4%** against USDT, Jarod withdraws his **1.02** BTC to his original address and converts his **\$52,000** USDT back into USD before withdrawing it back to his bank account.
- 25.1.3.1. **Current Tax Policy: POSSIBLE ASSESSABLE INCOME OF 0.02 BTC AND \$2,000 USDT.** The intention is that the gains are treated as assessable income, however:
- 25.1.3.1.1. in order to reacquire the BTC Jarod must have it transferred back to him and this is an acquisition of a CGT Asset;
- 25.1.3.1.2. it is unclear what Jarod is disposing of to reacquire his BTC, and so potentially the cost base of the BTC will be **nil**;
- 25.1.3.2. **Correct Tax Analysis: ASSESSABLE INCOME OF 0.02 BTC AND \$2,000 USD:**
- 25.1.3.2.1. The **0.02** BTC Jarod acquires is an asset, being foreign currency recognised in El Salvador, and it seems most reasonable to treat it as a revenue gain. Note that if it was another crypto then it would not be property and would no more give rise to taxation than would points in Space Invaders;
- 25.1.3.2.2. Jarod has acquired **\$2,000** USD when it is paid to him in USD, being income made under the contract with BlockFi;
- 25.1.3.2.3. The return of the **\$50,000** USD initial capital is not a taxable event;

## **Option 2.A – Exchanging BTC to WBTC and USD to USDT**

### Step 1 – Deposit Into Exchange

- 25.1.4. Cryptocurrency exchanges are third-party custodians and operate like traditional global asset exchanges that KYCs their customers. Jarod sends his BTC from his BTC wallet to a BTC exchange address that he controls

through his online portal. To convert his BTC to WBTC, he finds the BTC/WBTC pair on the exchange and trades his BTC for WBTC.

25.1.4.1. **Current Tax Policy: DISPOSAL OF CGT ASSET BTC, ACQUISITION OF CGT ASSET WBTC.** There will be two disposals, first upon the transfer of the BTC to the exchange (as described at 25.1.1.1 above) and then a second disposal when the BTC is exchanged for WBTC:

25.1.4.1.1. The exchange of BTC for WBTC is as problematic as it is straightforward under the current policy. Economically, BTC and WBTC are practically identical. The disposal of BTC in exchange for WBTC merely enables different software integration;

25.1.4.1.2. An economically analogous transaction is the transfer of an asset to a custodian trustee. No taxing event is triggered as the beneficially retains beneficial interest in the asset;

25.1.4.1.3. However, the exchange of the BTC for a WBTC does not create a legal or equitable relationship between the issuer of the WBTC and the donor of the BTC that has the ability under software to force the exchange of the WBTC for the BTC;

25.1.4.2. **Correct Tax Analysis: FOREX REALISATION EVENT 1.** There is no property being disposed of as crypto is not property. However, BTC is the one present exception as a foreign currency and therefore is a disposal of a Foreign currency that is also a CGT Asset:

25.1.4.2.1. As foreign currency, there is a disposal of BTC, which is ***Forex realisation event 1*** under 775-40 ITAA97

25.1.4.2.2. There is no acquisition of rights in exchange because the account was opened before the BTC is transferred so it is in exchange for **nil** consideration;

25.1.4.2.3. The market value substitution rule in s116-30 or 775-40(9) ITAA97 will apply to deem market value capital proceeds;

25.1.4.2.4. The treatment of BTC as a foreign currency is subject to the passage of *Treasury Laws Amendment Bill 2022: Taxation treatment of digital currency*. Once passed, the CGT provisions would apply instead;

25.1.4.2.5. The disposal of BTC in return for WBTC changes the rights that Jarod has against the exchange,

but does not constitute a CGT Event. There is not acquisition or disposal or other Event;

### Step 2 – Convert USD to USDT

- 25.1.5. Jarod is also able to send his USD to the exchange as USD and then trades for USDT, as he did with the BTC/WBTC pair. See 25.1.2 above;

### Step 3 – Transfer to MetaMask

- 25.1.6. To prepare to use his new USDT and WBTC assets on an Ethereum dApp, Jarod sends his assets from the exchange to decentralised (“hot”) wallet called MetaMask, that he controls. MetaMask is able to integrate with multiple blockchains and multiple dApps.

- 25.1.6.1. **Current Tax Policy: UNCLEAR.** The transfer of the USDT and WBTC from one wallet to another is intended not to trigger a disposal:

25.1.6.1.1. However, there is no relation between a MetaMask account and the person who is using it. There is no KYC, no user identification, nor indeed any legal relationship between MetaMask and Jarod. There is no way of knowing for certain whether the MetaMask account belongs to Jarod, or another person, other than the control of the 12 word seed phrase that is generated at the creation of the account;

25.1.6.1.2. Presumably this is treated as akin to a transfer to an address controlled with a public and private key;

25.1.6.1.3. The existing ATO commentary deals only with transfers from one address to another, and does not consider the difference in rights between an exchange and a decentralised address;

25.1.6.1.4. In any event, it must be analogous to the reverse of the analysis at 25.1.1.1 above, and therefore is a disposal by the exchange (which does not hold the WBTC and USDT as bare trustee for Jarod) back to Jarod personally (or perhaps some other entity if ownership by Jarod cannot be sure);

- 25.1.6.2. **Correct Tax Analysis: NON-TAXABLE.** There is no property being disposed of as crypto is not property. Neither the WBTC or USDT are recognised as foreign currency. There is simply a debiting of Jarod’s account at the exchange and crediting of the MetaMask account;

## Option 2.B – Bridging BTC to WBTC

### Step 1 – Swap BTC/WBTC

- 25.1.7. Cross-chain bridges are applications that swap assets on one blockchain for the same asset, native to another blockchain 1:1. In this case BTC from the BTC blockchain to WBTC on the Ethereum blockchain. These applications do not KYC their customers like a centralised exchange or financial services provider is required to. These decentralised finance platforms form the “DeFi” ecosystem.
- 25.1.8. Jarod sends his BTC from his BTC wallet to the bridge as “collateral” and receives his WBTC 1:1 as a receipt of his deposit. He is able to reverse the transaction and take back his BTC.
- 25.1.8.1. **Current Tax Policy: CGT EVENT A1 FOR BTC AND ACQUISITION OF WBTC**. Given that there is no exchange in this transaction, and instead it is from one address to another, it appears that there is a disposal of the BTC and an acquisition of the WBTC under current policy;
- 25.1.8.2. **Correct Tax Analysis: FOREX REALISATION EVENT 1**. There is no property being disposed of as crypto is not property. However, BTC is the one present exception as a foreign currency and therefore is a disposal of a Foreign currency that is also a CGT Asset:
- 25.1.8.2.1. As foreign currency, there is a disposal of BTC, which is **Forex realisation event 1** under 775-40 ITAA97
- 25.1.8.2.2. There is no acquisition of rights in the WBTC as it is not property and so it is in exchange for **nil** consideration;
- 25.1.8.2.3. The market value substitution rule in s116-30 or 775-40(9) ITAA97 will apply to deem market value capital proceeds;
- 25.1.8.2.4. The treatment of BTC as a foreign currency is subject to the passage of *Treasury Laws Amendment Bill 2022: Taxation treatment of digital currency*. Once passed, the CGT provisions would apply instead;

### Step 2 – Transfer

- 25.1.9. As he did in Option 2.A, to prepare to use his new WBTC assets on an Ethereum dApp, Jarod sends his assets from the bridge application to his MetaMask.



## Option 2 – Liquidity Pooling & Yield Farming

### Step 1 – Connect to dApp

25.1.10. Jarod has now consolidated his Ethereum-based assets in his MetaMask wallet.

25.1.10.1. 1 WBTC (value \$50,000USD)

25.1.10.2. \$50,000 USDT

25.1.11. He now connects his MetaMask to his preferred Ethereum dApp, so that he is able to commence his investment strategy on the dApp platform. This connection has no tax consequences.

### Step 2 – Liquidity Pooling

25.1.12. Jarod deposits his WBTC and USDT assets from his wallet into the dApp's corresponding "Liquidity Pool" for the WBTC/USDT pair at a 1:1 ratio in value. At the time of investing, this ratio is (conveniently) 1 WBTC : 50,000 USDT and Jarod is returned 1 WBTC/USDT LP (Liquidity Pool) Token as a receipt of his contribution to the pool. This token is deposited from the dApp into Jarod's MetaMask. The token has a value equivalent to the underlying assets it represents the receipt of 1 WBTC (\$50,000 USD) + 50,000 USDT (\$50,000 USD) = \$100,000 USD

25.1.12.1. **Current Tax Policy: CGT EVENT A1 FOR WBTC AND USDT AND ACQUISITION OF LP TOKEN;**

25.1.12.2. **Correct Tax Analysis: NO EVENT.** There is no property being disposed of as crypto is not property.

### Step 3 – Yield Farming

25.1.13. Jarod now has his 1 WBTC/USDT LP Token in his MetaMask wallet. To participating in earning a yield on his LP Token, he connects it with the dApp's corresponding yield farm and sets it to work.

25.1.14. Jarod is paid his 100% APY rewards in the form of additional LP Tokens and after 12 months has 2 WBTC/USDT LP Tokens in his MetaMask wallet. These rewards are paid daily (though, these can be as often as hourly on some dApps).

25.1.14.1. **Current Tax Policy: ASSESSABLE INCOME OF LP TOKEN;**

25.1.14.2. **Correct Tax Analysis: NO EVENT.** There is no property being acquired of as crypto is not property.

### Tax Policy Analysis of Example

26. There are a number of issues that are highlighted in the above example:

#### **Currency Tax Policy**

26.1. In relation to current tax policy:

- 26.1.1. The sheer number of taxing events to undertake a transaction that is economically analogous to depositing money in a bank and then transferring to a term deposit is astounding. The presents difficulties from an administration perspective given:
- 26.1.1.1. the volatility in the price of crypto;
  - 26.1.1.2. the likely non-linear series of actions to invest. That is, taxpayers are likely to move currency and crypto back and forth along the various stages in the above transaction; and
  - 26.1.1.3. the lack of understanding of all of the disposals that occur – taxpayers will typically treat disposals as only occurring when there is a transfer to third party, rather than to or from an exchange;
- 26.1.2. if a taxpayer was actively trading crypto and the crypto was treated as being trading stock then the various gains and losses could be simply calculated as a net gain or loss at the end of the financial year. However, for the vast majority of taxpayers they are not running a business of trading crypto;
- 26.1.3. there is a tax timing problem that creates an artificial and improper taxing event in that if there were latent capital gains in the BTC before it transferred, then those gains will be crystallised and tax imposed. However the value of the BTC could quite easily go down in the remainder of the financial year and lead to a position where the tax payable is greater than the value of the asset. I have seen this in many real life examples in the financial year ended 30<sup>th</sup> June 2022, where BTC decreased by about 70% from earlier in the year;
- 26.1.4. although this example produces a negative outcome for the taxpayer, it is quite easy to create a scenario in which tax is avoided altogether. In particular, if a taxpayer converts their holding to but one token (like the Liquidity Pool Token, or Wrapped BTC) the attributes of that token could easily change or increase without a disposal. That is, if the sub-attributes of a token changed, but without a disposal of the token, tax is avoided entirely under the present policy. There is no technological inhibition on such a tax avoidance token, it simply has not been created yet. It could easily evolve for non-tax related purposes, such as a token that is to act as an account or integration with other services;

### **Correct Tax Analysis**

- 26.2. In relation to my preferred tax analysis:
- 26.2.1. There is an over representation of taxable events in the example because of the use of BTC, which is a foreign currency. In time, a handful of major crypto will also become foreign currencies. It may be the case that this encompasses the majority of the *market value* in crypto, because of the predominance of the largest crypto. However the vast majority of cryptocurrencies by *number* are not foreign currencies and hence not property;
  - 26.2.2. That interactions of software do not trigger a taxing event should not be regarded as a loss of tax revenue. People value their points in Space

Invaders. Other video game success benefits have been attributed large values – including a “Blue Party Hat” in the game Runescape.<sup>73</sup> When that software ledger is debited in return for real world property then there *should*, and *is*, a tax event. When tokens are exchanged for property there is an acquisition of an asset that is subject to taxation;

- 26.2.3. By recognising (and taxing) as property *only* rights that are correctly property at common law, the law *becomes more robust* against future technological changes, which are unpredictable; and
- 26.2.4. Despite the claims of the majority of participants in the crypto industry, the most accurate description of most crypto activity is gambling. Most participants desire, and expect, extremely high rates of return that are consistent only with gambling, and not some investment or economically substantive activity.

### **RECOMMENDED METHODS OF TAXATION**

- 27. In my view, the current approach to the taxation of crypto is wholly inappropriate, and should instead be approached as follows:

#### **Tax Objectives**

- 27.1. To be clear on what goals my recommendations meet, I see the following as the guiding objectives for the taxation of crypto:

##### Consistency with Established Law

- 27.1.1. Any taxation that is inconsistent with the established legal principles will be liable to be eroded, cause uncertainty and disputes, and need constant amendment.

##### Suitable to Current and Future Technology

- 27.1.2. Taxation must be amendable to a rapidly changing technological state, and one that does not utilise classical forms of relationship, geography or identification;

##### Tax Imposed on Income

- 27.1.3. Taxpayers should pay tax on income that they receive (whether on capital or revenue account), and should not pay tax when they do not receive income;

#### **Fundamental Principles**

- 27.2. In order to meet the above tax objectives, I suggest the following as foundational principles for the taxation of crypto:

##### Code is Not Property

- 27.2.1. Crypto and other code should not be treated like, or deemed to be property for the purposes of taxation;

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<sup>73</sup> <https://estnn.com/10-most-expensive-items-in-video-games-ever/>

### Currency Recognised

- 27.2.2. Where a crypto is accepted as currency in a foreign jurisdiction it should be recognised as such. Australia may by regulation wish to recognise certain crypto as Australian currency if they become widely used; and

### Code that Results in Property is Taxed

- 27.2.3. Where as a result of some code there is an acquisition of property (including currency) then that acquisition should be taxed as income (on either revenue or capital account, as appropriate);

### **Tax Methods**

- 27.3. Crypto and other software code (including points in Space Invaders) should be considered as similar to gambling chips in a casino – inherently valueless, but if converted to currency or property then profit is made. Accordingly, in my view all crypto transactions (except for crypto that is currency or is otherwise property) should be ignored as taxable events. Instead, when that crypto or software (if ever) is converted into property or currency then it should be recognised as derivation of assessable income and taxed. The consequences of this is as follows:

### No Missed Tax

- 27.3.1. Although it may appear that taxpayers can accrue gains in crypto without taxation, the accumulation of points without any other benefit does not matter any more than the accumulation of millions of points in Space Invaders. And just as a game of Space Invaders can be reset, so too do cryptocurrencies disappear and lose their entire value. Until a software state is crystallised into property or currency it should not be regarded as having any real value and so no tax revenue is missed out upon;

### Tax Follows Profits

- 27.3.2. Tax is imposed where actual profit taking occurs. If a taxpayer has converted a software state into currency or property then they will have the resources to pay that tax imposed upon them and do not have the risk of crystallising tax obligations that are in excess of the value of assets (e.g. where the value of crypto drops);

### Compliance Points Reduced

- 27.3.3. Instead of trying to monitor and enforce compliance against taxpayers and accounts that can by their nature be opaque, all that needs to be monitored are the exits to software. Crypto exchanges can be monitored for exchange from crypto into fiat currency. Fully decentralised and anonymised dApps are unable to convert crypto into fiat currency, and so there will always be a substantive legal entity to enforce compliance upon;

### Goods and Services are a Suitable Enforcement Target

- 27.3.4. Most purchases of property or services made by crypto are actually done through an exchange and are converted into fiat currency (and so they are not *really* transactions made in crypto). However, in the event of *pure* crypto transactions for goods and services there will be a natural GST reporting

obligation for the good or service provider and accordingly an opportunity for identification and taxation of the purchaser of the services:

- 27.3.4.1. A *pure* crypto payment received by a goods or service provider is most likely going to occur through a payment gateway or exchange, such a Crypto.com, in which case both the vendor and the customer will be using that same gateway app. Monitoring of the payment gateway app for purchase, and hence assessable income by the taxpayer, is a much stronger and simpler enforcement target; and
- 27.3.4.2. In the event that a goods or service provider does not use a payment gateway for a transaction, then withholding tax obligations could be imposed, similar to how withholding obligations are imposed upon bank accounts that do not have a TFN identified with them;

Suitable for Future Developments

- 27.3.4.3. In the event that some code in the future becomes valuable, say a Space Invaders Token ("SIT"), then whatever nature or form that SIT takes:
  - 27.3.4.3.1. Can develop freely and without regulatory interference; and
  - 27.3.4.3.2. Will be taxed upon crystallisation into currency or property;
- 27.3.4.4. In which case future tax revenue is protected and innovation encouraged.

I would be pleased to answer any questions or have further discussions or submissions if they would be of interest. Please do not hesitate to contact me if that would be of assistance.

Kind Regards,



Adrian Cartland

Principal

