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Introduction

[1] Cryptopia Ltd (in liquidation) (Cryptopia) was formed in 2014 as a cryptocurrency trading exchange. It had a short but tumultuous history. It was placed into liquidation in May 2019 after suffering a serious hack and the loss of some \$30 million of cryptocurrency from its exchange.

[2] Issues in the liquidation have arisen over just who owns the remaining cryptocurrency under the control of Cryptopia and what should happen now.

[3] The applicants (the liquidators) apply to the Court for directions under s 284(1)(a) of the Companies Act 1993 relating to the categorisation and distribution of assets in the liquidation.

[4] Two tasks before the liquidators are the subject of the assistance they seek from this Court. The first is in confirming just what are the assets in the liquidation. Once that matter which is the subject of the present application is determined, the liquidators say they intend to advance a further application to propose methods of distribution of the company's assets. The present application, counsel say, is therefore part one of a two-part process before distribution of Cryptopia's remaining assets can be achieved.

Background facts

(a) General

[5] Cryptopia is a cryptocurrency exchange. Essentially, it is an online platform or exchange designed principally, among other things, to allow users to trade pairs of a vast range of cryptocurrencies between themselves, with Cryptopia charging fees for trades, deposits and withdrawals.

[6] Cryptopia, was started by Rob Dawson and Adam Clark, essentially as a hobby. It described itself internally as: "Providing an auction house and marketplace, several stable nodes on the network, and a support framework for each coin accepted on the site."

[7] Up to early 2017, Cryptopia’s operations were reasonably modest, having attracted some 30,000 users. The number of users, however, expanded exponentially from November 2017 as the price of bitcoin a unit of account for a popular cryptocurrency known formally as Bitcoin,¹ more than trebled. Counsel have indicated that at that point the number of users would have been well in excess of 900,000, the majority being from outside New Zealand.

[8] Specifically, between November 2017 and January 2018, the value of one bitcoin had increased from approximately USD 4,350 to almost USD 20,000. The number of registered accountholders at Cryptopia grew by over 940 per cent over the same period and company revenue and staff numbers grew significantly. As at 18 October 2019, after the company was liquidated, Cryptopia had 960,143 accountholders with a positive coin balance. Of that number, 104,186 are believed to be accountholders with a “deemed nil value”, presumably because of the hack. The balance comprises a substantial number of accounts of only modest value.

[9] Cryptopia’s reach was global. New Zealand had the 26th largest number of accountholders (9,475) with 230 other countries and territories identified as accountholders by reference to internet protocol (IP) addresses. Certain problems with this IP address method of identification have been identified but, notwithstanding any anomalies, it is clear Cryptopia was operating as a global business.

[10] Cryptopia enabled accountholders to trade approximately 900 cryptocurrencies, more than any other exchange in the world. It is clear, however, that some 400 of these cryptocurrencies had been delisted by Cryptopia and could not be traded at the time it was placed into liquidation.

[11] The liquidators, as I understand it, have estimated Cryptopia currently holds cryptocurrency currently worth about NZD 170 million.

¹ Lacking guidance on the correct manner to refer to cryptocurrencies from Coppard and others *New Zealand Law Style Guide* (3rd ed, Thomson Reuters, Wellington, 2018), I have decided to refer to them in this way: the cryptocurrency *system* is to be capitalised (for example “... when Bitcoin was first developed...”); but the *unit of account* for a cryptocurrency is not to be capitalised (for example “... at the rate of one ethereum for 0.04 of a bitcoin.”). This is consistent with the approach taken in the *Associated Press Stylebook Online*.

[12] In January 2019 Cryptopia's servers were hacked. Somewhere between nine and 14 per cent of its cryptocurrency was stolen, this being valued at around NZD 30 million. Cryptopia temporarily suspended its operations before resuming them in March 2019. Soon after, in May 2019, Cryptopia's shareholders resolved by special resolution to place the company into liquidation.

[13] As to the hack, this theft of what was about \$30 million of several cryptocurrencies was effected by way of an unauthorised transfer of those cryptocurrencies to an undisclosed external exchange. It seems this transfer is irreversible.

[14] The liquidators, as I have noted, have now applied to this Court under s 284(1)(a) Companies Act for guidance and directions. Counsel advise that to the best of their knowledge this is the first occasion on which issues of this type concerning cryptocurrency have been before the courts in New Zealand.

[15] Essentially, the present application is run by the liquidators for directions on the legal status of a number of cryptocurrencies held by Cryptopia ("the digital assets") and in particular whether those digital assets are held on trust by the company.

[16] Counsel for the liquidators make clear that the liquidators have no interest in whatever outcome is reached by the Court on the issues in the present application but simply wish to ensure the Court receives full argument on those issues.

[17] Effectively, the tussle which is before the Court is one between the creditors of Cryptopia on the one hand and the accountholders who have invested in the various digital assets ("the accountholders") on the other.

[18] Experienced senior counsel have been appointed by the Court to represent those classes of affected interests in the application – Ms Cooper QC for the creditors and Mr Watts QC for the accountholders (who have also been described here as "the potential trust beneficiaries").

[19] In essence, therefore, the present application concerns the legal nature and status of the digital assets and of potential equitable interests in them. These digital assets, as I have noted, have an approximate value of about NZD 170 million.

[20] The present contest over the digital assets is effectively one between the more than 800,000 accountholders holding a positive coin balance with Cryptopia, the company's estimated 37 trade and other creditors and its 90 shareholders.

(b) *What is cryptocurrency?*

[21] At the outset it is useful to provide a definition of cryptocurrency generally. Counsel seem to accept that a most helpful description is found in a British report of the "UK Jurisdiction Taskforce" entitled *Legal Statement on Cryptoassets and Smart Contracts*.² The report was authored by four barristers, experts in this field and considers broadly the legal status of cryptoassets and, in particular, whether the law treats them as property. In the report, the authors provide what is a useful and non-technical summary of cryptoassets or cryptocurrency. This definition follows the heading in the report "What is a Cryptoasset?" It explains:

24. In October 2008, the pseudonymous Satoshi Nakamoto published his now-famous paper *Bitcoin: A Peer-to-Peer Electronic Cash System*. Observing that commerce on the Internet relied almost exclusively on financial institutions serving as trusted third parties, Nakamoto proposed a new electronic payment system "based on cryptographic proof instead of trust", with digital tokens – *bitcoins* – taking the place of traditional currency. The first bitcoin came into existence in January 2009, not coincidentally at the height of the global banking crisis.
25. Many other systems have been developed since then to implement commercial applications using cryptographic techniques. The market continues to expand as new applications and new techniques are explored.
26. Most applications involve dealings in assets of some kind, which therefore have to be represented digitally within the system. We use the term *cryptoasset* to refer generally to such a representation. However, that should not be understood as a term of art. Because of the great variety of systems in use and kinds of assets represented (ranging from purely notional payment tokens such as bitcoins to real-

² UK Jurisdiction Taskforce *Legal Statement on Cryptoassets and Smart Contracts* (The LawTech Delivery Panel, November 2019) [*Legal Statement on Cryptoassets and Smart Contracts*] <<https://technation.io/news/uk-takes-significant-step-in-legal-certainty-for-smart-contracts-and-cryptocurrencies/>>.

world tangible objects) it is difficult to formulate a precise definition of a cryptoasset and, given the rapid development of the technology, that would not be a useful exercise. Indeed, there is no consistency even in the nomenclature, with *virtual* and *digital* also widely used to describe the kinds of things with which we are concerned.

27. Instead, we have set out to identify and describe, in general terms, the features of cryptoassets that may be regarded as genuinely novel or distinctive, as compared with conventional assets, so that we can then consider whether and how those features might be relevant to issues of legal and proprietary status.
28. A cryptoasset is ultimately defined by reference to the rules of the system in which it exists. Functionally, it is typically represented by a pair of data parameters, one public (in that it is disclosed to all participants in the system or to the world at large) and one private. The public parameter contains or references encoded information about the asset, such as its ownership, value and transaction history. The private parameter – the *private key* – permits transfers or other dealings in the cryptoasset to be cryptographically authenticated by digital signature. Knowledge of the private key confers practical control over the asset; it should therefore be kept secret by the holder. More complex cryptoassets may operate with multiple private keys (*multisig*), with control of the asset shared or divided between the holders.
29. Dealings in a cryptoasset are broadcast to a network of participants and, once confirmed as valid, added to a digital ledger. The main function of the ledger is to keep a reliable history of transactions and so prevent *double-spending*, i.e. inconsistent transfers of the same cryptoasset to different recipients. The ledger may be *distributed* and *decentralised*, that is, shared over the network with no one person having a responsibility for maintaining it, or any right to do so. A common type of distributed ledger uses a *blockchain*, which comprises blocks of transactions linked together sequentially, but other models are also in use.
30. An important feature of some systems is that the rules governing dealings are established by the informal consensus of participants, rather than by contract or in some other legally binding way. Consensus rules (employing methods such as *proof-of-work* or *proof-of-stake*) may also determine which version of the distributed ledger is definitive. The rules are self-enforcing in practice, even if not enforceable in law, because only transactions made in compliance with them and duly entered in the ledger will be accepted by participants as valid.
31. Although not all systems possess all of them, we can therefore identify the principal novel and characteristic features of cryptoassets as being:
 - (a) **intangibility;**
 - (b) **cryptographic authentication;**
 - (c) use of a **distributed transaction ledger;**

- (d) **decentralisation**; and
 - (e) ruled by **consensus**.
32. It is those features that have given rise to much of the debate about legal and proprietary status and on which we therefore focus our analysis.
33. Some cryptoassets are intended to represent or are linked to conventional assets external to the system, for example money or debt obligations, tangible goods or land, a share or unit in a company or fund, or a contractual right of some kind; those assets are sometimes referred to as *tethered*, *exogenous* or *off-chain*. Such an external asset is certainly property but what, if any, rights in it conferred on the holder of the corresponding cryptoasset will depend on the contractual structure or legal rules of the system. For the present, we are concerned only whether the cryptoasset itself (the *native* or *on-chain* asset) is property, as distinct from any other asset it might represent, although we return to the relationship between on-chain and off-chain assets below when we discuss whether cryptoassets can operate as assets of title.
34. Many dealings in cryptoassets involve intermediaries such as brokers or custodians; that is the case even in systems, such as Bitcoin, that are designed to avoid the need for intermediation. What personal and proprietary rights the principal may have against an intermediary will depend on established rules of contract, tort and agency. That is outside the scope of the present discussion.

(emphasis original, footnotes omitted)

(c) How Cryptopia operated

[22] In two affidavits one of the liquidators, David Ruscoe described how Cryptopia itself operated. In his affidavit Timothy Brocket, Cryptopia's Director of Finance and Administration from 1 July 2018 up to the date of the company's liquidation, also offered some insight into the company's operations. In summary, the position seemed to be:

- (a) Cryptopia provided an online platform or exchange that allowed accountholders to trade pairs of cryptocurrencies. In order to do so, a user was first required to register with Cryptopia to open an account and to make a deposit or purchase in one of the five "base currencies".
- (b) The customer's deposit would be made into a "hot wallet" (a wallet connected to the internet) for the cryptocurrency in question. Once

deposited the currency could be left in the hot wallet to meet withdrawal requests from other users or be transferred to a “cold wallet” (a wallet not connected to the internet). Once an initial deposit was made to the exchange, the accountholder’s wallet listed a coin balance equivalent to the deposit. The accountholder would then be able to use the services offered by the exchange, including selling and buying cryptocurrency.

- (c) All cryptocurrency on the exchange was stored in digital (hot or cold) wallets. The distinction between the hot and cold wallets turns upon the way in which the data in the wallets was stored:
 - (i) Cold wallets were held offline preventing them from being hacked (at least by outsiders). It appears that 75 per cent of the cryptocurrency held by Cryptopia (by volume) was stored in cold wallets.
 - (ii) Hot wallets were online, hosted on servers physically located in Phoenix, Arizona (and potentially at some point prior also in the Netherlands). The balance of the cryptocurrency held by Cryptopia (or 25 per cent by volume) was located in hot wallets.
- (d) When a trade occurred between two users on the exchange, the users’ respective coin balances on the company’s internal ledger would change to reflect the trade, but the balances in the company’s digital wallets did not change.
- (e) The trades and transfers that took place on the exchange did not affect the blockchain ledgers, (the general ledgers of ownership that exist for each cryptocurrency outside of the exchange). This is because at all times the coins remained held in Cryptopia’s digital wallets.
- (f) Whether a wallet was cold or hot (whether it was stored online or not) was not immutable. A wallet could be made hot by bringing it online or cold by taking it offline. Coins could also be transferred between

wallets. For instance, a new user will have deposited a particular coin to a hot wallet but Cryptopia may have then transferred it to a cold wallet for safekeeping.

- (g) Although Cryptopia had one hot wallet per cryptocurrency, it may have had multiple cold wallets for the same cryptocurrency. Mr Ruscoe's evidence is that there were "separate cold wallets for supposed company holdings and customer holdings of the same currency." Cold wallets also appeared to serve a residual purpose of topping up hot wallets depending upon the volume or withdrawal requests for a particular coin.
- (h) From the account holder's perspective, it made no difference if cryptocurrency was held in hot or cold wallets. In fact, they may have been unaware of this distinction. Each accountholder was able to transfer cryptocurrency (as reflected in their coin balance) to a privately held digital wallet, another Cryptopia account or an account hosted on another exchange.
- (i) Similarly, from the account holder's perspective, it made no difference if trades were made inside or outside Cryptopia's exchange. There was, however, a mechanical difference to those trades resulting from how Cryptopia stored and managed the cryptocurrency traded on its platform:
 - (i) Trades within the exchange: a transfer of cryptocurrency between accountholders (two users of Cryptopia) was effected by corresponding adjustments to the accountholders' coin balances. As Cryptopia held the underlying cryptocurrency it did not need to make any changes to the wallets to effect the transactions. The transactions were recorded in Cryptopia's internal structured query language (SQL) database (or internal ledger of transactions).

- (ii) Trades outside the exchange: as with an internal trade, a transaction to a wallet held outside the exchange involved an adjustment to the account holder's coin balance. However, Cryptopia would have to transfer cryptocurrency from a hot wallet to the recipient who in turn would transfer cryptocurrency to another Cryptopia hot wallet. That transaction would be recorded on the relevant cryptocurrency's public ledger.

- (j) Unlike transactions on the exchange which did not move coins between wallets, all cryptocurrency transactions that moved coins from one wallet (or address) to another required a private and public key. The public key is essentially the digital wallet address, and the private key is similar to a password, that is known only to the user. A new private key is generated each time cryptocurrency is transferred on the blockchain.

- (k) Cryptopia exclusively held the private keys to its digital wallets that contained the cryptocurrencies traded on the exchange. As I understand it, account holders did not have access to the private keys.

- (l) Cryptopia charged a fee for each trade and a withdrawal fee. Cryptopia had its own accounts on the exchange so that when a trade took place the trade fee would be paid into Cryptopia's account for collecting trade fees.

- (m) The cryptocurrency associated with Cryptopia's own account holdings on the exchange was held in Cryptopia's digital wallets and pooled along with user holdings.

- (n) Cryptopia also charged various fees for services such as recovering cryptocurrency that had been accidentally transferred to another user on the exchange.

- (o) Significantly, as I see it, Cryptopia’s Customer Service Analyst Manual, an internal document, outlined the company’s own perspective on what accountholders received from Cryptopia. The manual explained that:

Exchange services like Cryptopia manage and maintain wallets, and provide you with the functionality to send and receive transactions as well as securely hold[ing] the balances assigned to your account.

(d) Cryptopia’s terms and conditions

[23] The earliest record of any terms and conditions for Cryptopia appears to be a version dated January 2015. Although it is unclear whether Cryptopia may have had a version available prior to January 2015, it appears not.

[24] What does seem clear is that the relationship between Cryptopia and the accountholders, especially at the outset, was not a well-documented one.

[25] Turning to the language used by Cryptopia in those earliest Terms and Conditions introduced in January 2015, these relevantly state:

Terms – Cryptopia

Terms and Conditions

Website Terms of Use

This website (site) is operated by Cryptopia Limited...your use of this site is governed by these terms of use. By access and browsing this site you agree to be bound by these terms of use. We make this site available to you in order to provide information about our products and services and enable you to purchase these products and services from us online.

...

Marketplace Liability

...

Cryptopia is a service to allow anyone to offer, sell and buy items at any time. *We are not involved in the actual transaction between Buyers and Sellers. We have no control over* and do not guarantee the quality, safety or legality of items advertised, the truth or accuracy of listings, the ability of Sellers to sell items, the ability of Buyers to pay for items, the timeliness of deliveries, or that a Buyer or Seller will actually complete a transaction. *We do not transfer legal ownership of items* from the Seller to the Buyer. Unless the Buyer and

the Seller agree otherwise, *the Buyer will become the item's lawful owner upon physical receipt of the item from the Seller.*

...

Right to use site and content

You may use the site only for the purposes for which it is provided. You must not use this site for fraudulent or other unlawful activity or otherwise to do anything to damage or disrupt this site. Multiple accounts for the purpose of defrauding, circumventing bans, soliciting or abusing Cryptopia Ltd services will result in immediate termination of all related accounts, *including seizure of all on-site digital property.* Threats towards Cryptopia Ltd, Cryptopia Ltd Staff will result in immediate termination of all related accounts, *including seizure of all on-site digital property.*

...

Amendments

We may amend these terms of use from time to time, so you should check and read these terms of use regularly. By continuing to use this site after any such amendment, you are deemed to have agreed to the amended terms of use.

(emphasis added, all bold original)

[26] These original terms and conditions seemed to apply unchanged until 7 August 2018 when a new “Terms and Conditions” document was introduced by Cryptopia. It seems this was crafted with legal assistance and may have resulted because of a view taken by Cryptopia executives at the time that more detailed terms and conditions were required.

[27] These new 7 August 2018 Terms and Conditions, the parties have accepted, varied the earlier terms and conditions. Amongst other things, these varied Terms and Conditions relevantly stated:

Introduction

- A. These terms and conditions of use (terms) apply to the Cryptopia website and associated applications (the platform) and the services (services) operated and provided by Cryptopia Limited.
- B. These terms, the platform and the services allow you to:
 - (i) Buy, sell and exchange supported coins through the platform.
 - (ii) Use fiat pegged tokens, when available; and
 - (ii) Store supported coins in our hosted wallets.

- C. In these terms Cryptopia, we, us or our, means Cryptopia and you or your means the person accessing or interacting with the platform and/or the services.

...

2. Understanding your risks

Trading in coins is speculative and high risk. You may lose some or all of any money or coins that *you* hold or transact using the platform. *You* should not trade coins unless you can afford to lose *your* investment without hardship. **Please read the Cryptopia Risk Statement carefully for a summary of some of the risks that you must understand before you use the platform or services.**

...

Your account

4.1 Opening an account

- (a) To use the platform and our services, you must open an account by completing our process through the platform. We can decline to open an account or provide a service, without notice and for any reason.
- (b) We will require proof (satisfactory to us) of your identity when you open an account, to enable us to meet our obligations under the Applicable Law (in particular any anti money laundering or countering financing of terrorism requirements). In addition, we may ask for such other information as we consider is necessary or desirable...

4.2 Using your Account

- (a) Your account comprises *your* coin balances...including where applicable any fiat pegged tokens that you hold...and includes a record of all *your* transactions.
- (b) You agree to accept responsibility for all activities that occur under your account or password.
- (c) You must maintain the confidentiality and security of any information that can be used to access your account.

...

- (a) You understand that anyone accessing your account will be able to enter into transactions using *your* coin balances and where applicable any fiat pegged tokens and we have no obligation to verify or take any

steps to verify any instruction received from you or appearing to be sent by you.

4.3 We can suspend your account

(a) We may suspend, limit or restrict access to your account, the platform any service, at any time without notice if:

(i) You fail to pay any amounts owing under these terms to us or any other person when they are due.

(ii) We become aware of a dispute over either the *ownership of any assets* in your account or the operation of the account.

...

(d) Subject to any applicable law, if we close your account:

...

(iii) We may at our discretion provide you with access to the platform solely to the extent necessary to access to your account for a period of 90 days to allow you to transfer your Coins to a different digital wallet or to redeem any fiat pegged tokens.

...

5 Your Coin balances

(a) *Your Coin balances* form part of your account, and allow *you* to send, receive and store supported Coins...in accordance with instructions received by you through the platform;

...

(d) *Your Coin balances* are operated by us, and represent entries *in your name on the general ledger of ownership* of Coins maintained and held by us. This means the Coins in your deposit wallets may be pooled in our internal accounts with other users' Coins at any time.

(e) *Each user's entry in the general ledger of ownership of Coins is held by us on trust for that user.*

6. Fiat pegged tokens

(a) Where we are able to do so...we may offer fiat pegged tokens to enable you to upload fiat dollars to your account in exchange for the equivalent pegged tokens which are tradeable on our platform.

...

(e) Fiat pegged tokens are not financial products in themselves and do not give you any rights or carry any obligation. They are a digital representation of fiat dollars *held on trust for you* in the custodial account. Under these terms *you hold the beneficial interest in these*

fiat dollars and can instruct us as trustee to deliver them to you at any time, subject to these terms...

7. Trading on the platform

...

7.2 Reversals, cancellations

- (a) You cannot cancel, reverse, or change any transaction once it is submitted.

...

7.3 Agent

You appoint Cryptopia, and *Cryptopia accepts the appointment, as your agent* for any transaction in Coins that you have entered into through your account on the platform in accordance with these terms.

7.4 Location of transactions

All transactions through the platform are deemed to take place in New Zealand. On completion of the transaction, you are *deemed to take possession of your account and the assets in your account in New Zealand.*

8. Platform change and business disruptions

- (a) We will use reasonable care in operating our platform, so as to limit disruptions to the platform, user accounts and their services. However, you accept that our platform will not necessarily be available uninterrupted or error-free and it may also be inaccessible from time to time while undergoing maintenance or upgrade work...

...

13. Fees and expenses

13.1 You agree to pay our fees.

You agree to pay all fees and expenses associated with or incurred by you in relation to your use of our services or platform which are published on our platform.

...

14. Taxes

By using our platform, you accept that it is up to you to understand whether and to what extent, any taxes apply to any *transactions you conduct* through our services or platform. We accept no responsibility for, nor make any representation in respect of, your tax liability.

...

19. Glossary

In these terms:

...

Coin balance(s) means any record of Cryptopia holding funds on the Cryptopia platform *on your behalf*.

...

Custodial account means the bank account held by Cryptopia *on behalf of users* for the purpose of receiving and transmitting fiat dollar funds matched to fiat pegged tokens.

Services means any services provided by us to you or any other user whether through the platform or outside of it, including *the purchase, sale and exchange of coins* and the provision of the platform, your account (including any fiat pegged tokens) in any Coin wallet.

(emphasis added, all bold original)

[28] As Cryptopia's last Director of Finance and Administration, Mr Brocket deposed before me that he had responsibility for the accounting, financial reporting, budgeting, tax compliance, investments, insurance, people and culture, and audit functions of Cryptopia.

[29] He confirmed in that affidavit that, based on his knowledge, there were only ever these two sets of Cryptopia's terms and conditions that applied to customers. This evidence was unchallenged before me. In particular, he stated:

From an operational perspective, there were no material changes to the way the business operated that resulted from the change to the terms and conditions in August 2018. An email was sent to all customers of which there were approximately 2.3 million users when the changes were effected.

[30] Mr Brocket further deposed:

6. Cryptopia provided a trading platform...for accountholders to trade pairs of cryptocurrencies.

...

11. ...Accountholders could make deposits and withdrawals of enabled coins. Any accountholder could withdraw *its cryptocurrency* from the exchange into a privately held digital wallet, controlled by the accountholder or alternatively transfer cryptocurrency to another exchange, if the currency in question was traded on that other exchange or the exchange agreed to host it.

12. Trades...were carried out on the Cryptopia exchange through the use of order books that listed the available buy/sell orders. When the orders matched a trade would occur...

(emphasis added)

[31] As to how Cryptopia would be paid for cryptocurrency transactions, Mr Brocket stated:

15. ...Cryptopia charged a trading fee charge of 0.2 per cent of the value of the trade...the trading fee was charged to the buyer and the seller.
16. If a seller wanted to trade one bitcoin, then she would have 1.002 BTC deducted from her account, of which 0.002 BTC would go to Cryptopia as the transaction fee on the sell side. The “purchaser” would receive 0.998 BTC, with the difference of 0.002 BTC being paid to Cryptopia as the fee on the buy side...

(e) Cryptopia’s financial accounts

[32] Lastly, before the Court are a range of Cryptopia’s profit and loss statements and balance sheets for the period 1 January 2018 to 8 August 2018 and for the period around 2018/2019. What is clear from these financial accounts prepared by Cryptopia’s in-house accountant is that details of its assets do not include any cryptocurrency, other than the amounts in its platform that Cryptopia clearly held on its own account. Digital currency held on the platform for accountholders was not shown as an asset of or belonging to Cryptopia. Nor was any appropriate entry in the liabilities section of Cryptopia’s balance sheets to show advances to the company from accountholders which financed the acquisition of these digital assets.

[33] From GST returns which are before the Court, there is also no suggestion that digital trading of the large number of digital assets held for accountholders was undertaken in any way by Cryptopia on its own account.

(f) SQL database and how Cryptopia generated income

[34] The SQL database was Cryptopia’s internal database that recorded transactions carried out on the exchange and the coin balances of each account.

[35] Cryptopia charged accountholders a fee for deposits, trades, withdrawals and listing coins. The company had several accounts on the exchange into which the fees were paid. These accounts had a corresponding SQL entry.

[36] When a trade took place the trade fee would be credited to Cryptopia's fees account which would generate a corresponding entry on the SQL database. A weekly report was prepared by Cryptopia that summarised the trading fees generated in the previous week and converted these into New Zealand dollars.

[37] The underlying holdings of Cryptopia itself were also reconciled into the company's accounting system, Xero, and recorded in the accounts as company assets. Appropriate journal entries would be created. This was set up like a bank account in Xero.

(g) The hack

[38] As I have noted, Cryptopia was hacked, this occurring in January 2019. The parties estimate that the hackers stole approximately NZD 30 million worth of cryptocurrency from the exchange. That cryptocurrency was withdrawn from the exchange using the private keys for the currencies in question, so Cryptopia was not able to reverse the transactions. The hack is the subject of an ongoing police investigation but this is not as yet resolved.

[39] Currently the liquidators are in the process of ascertaining the amount of cryptocurrency that was stolen and the amount that is left in Cryptopia's wallets. This process involves individually "standing up" the digital wallet for each cryptocurrency (of which there are approximately 500) and recreating each entry to protect the system from any malware that might be left over from the hack.

[40] Once that process is completed, the liquidators will be able to carry out a reconciliation exercise between the actual cryptocurrency holdings that the company controls or owns and the accountholders' account balances recorded in the SQL database. The results of this process will assist the liquidators in determining not only what is available for distribution, but also the proportion of account balances or claims that can be distributed or paid once the present application is determined.

(h) Advertising and promotion

[41] It seems from the available evidence before the Court that Cryptopia did not actively promote its business, at least until it adopted a new marketing strategy in July 2018 by which point its user numbers had already spiked.

[42] Mr Ruscoe has confirmed that Cryptopia marketed itself through channels like Google and Trade Me advertisements and it promoted itself through banner advertisements and through some event sponsorship. The majority of this marketing seems to have been through online social media channels. On these aspects, Mr Watts for the accountholders submits that there are aspects of this advertising and promotion which support the existence of trusts being established for the holding of accountholders' cryptocurrency. I will address this aspect further below.

The law – s 284 of the Companies Act 1993

[43] The application before me, as I have noted, is made under s 284(1)(a) of the Companies Act 1993. In terms of this provision, this Court on an application from, amongst others, a liquidator (as has happened here) has a supervisory jurisdiction to: "...give directions in relation to any matter arising in connection with the liquidation."

[44] The authors of *Heath and Whale on Insolvency*, in commenting on the application of s 284 state:³

...if there is a difficulty at any stage of the administration, it is the liquidator's clear duty to inform the court and seek directions [under s 284 of the Act].

[45] In addressing the liquidator's principal duties engaged in the liquidation of a company, s 253 of the Companies Act describes this duty as being:

...

- (a) to take possession of, protect, realise, and distribute the assets, or the proceeds of the realisation of the assets, of the company to its creditors in accordance with this Act; and

³ Paul Heath and Michael Whale (eds) *Heath and Whale on Insolvency* (online ed, LexisNexis) at [22.8(e)] (footnote omitted).

- (b) if there are surplus assets remaining, to distribute them, or the proceeds of the realisation of the surplus assets, in accordance with section 313(4)–

in a reasonable and efficient manner.

The liquidators' application

[46] In the liquidators' application to this Court orders are sought which they say relate to the following questions:

As to the legal status of the Digital Assets

- (a) Whether any or all of the various cryptocurrencies (digital assets) held by the liquidators of Cryptopia constitute "property" as defined in s 2 of the Companies Act 1993;
- (b) Whether any or all of the Digital Assets are held on trust for any or all Account Holders (whether by way of express, implied, resulting, constructive, Quistclose Trust or otherwise);
- (c) If the answer to question (a) or (b) is no, then to the extent that such digital assets are not "property" whether the applicant liquidators should satisfy claims of:
 - (i) Any Account Holder of the company (Account Holder) for the return of his/her/its digital assets; and
 - (ii) Unsecured creditors;by conversion of such Digital Assets into fiat currency and paying such in accordance with Part 16 of the Companies Act 1993;
- (d) If the answer to question (b) is yes in any respect, then:
 - (i) When did the Trust/s come into existence? When the company updated its terms and conditions on 7 August 2018 (Amended Terms), or at some alternative date?
 - (ii) What are the terms of the Trust/s?
 - (iii) Are the Digital Assets held on trust:
 1. In an individual trust for each Account Holder, with the result that each Account Holder is the sole beneficiary of the Trust?
 2. In one trust for the benefit (of) all Account Holders with the result that all Account Holders are co-beneficiaries of the same trust, or

3. In multiple trusts for the benefit of specific groups of Account Holders, with the result that Account Holders within a specific group are co-beneficiaries of same trust, or
 4. On some other basis.
- (e) What is the consequence of the applicant liquidators being unable to ascertain the identity of any Account Holder, and what consequences flow in relation to any Digital Assets associated with that account, specifically:
- (i) Can the applicant liquidators close any such Accounts and retain any Digital Assets as assets of the company; or
 - (ii) Do any such Digital Assets fall to be dealt with pursuant to the Trustee Act 1956, or otherwise.
- (f) If and to the extent that the applicant liquidators recover stolen Digital Assets, then are such to be dealt with by the applicant liquidators:
- (i) In accordance with the determination sought above;
 - (ii) Pro rata according to the amounts recovered assessed against amounts stolen; or
 - (iii) As assets of the company.
- (g) Directing that the reasonable fees and disbursements of Peter Watts QC, Jenny Cooper QC, Buddle Findlay and the liquidators shall be met, in the first instance, from the pool of realised Bitcoin holdings pursuant to paragraph 3(b) of the order of this Court dated 29 May 2019, on the basis that the fees are a necessary and reasonable expense of the liquidation, of and incidental to the protection, preservation, recovery, management and administration of the assets of Cryptopia, with the Court's decision as to the ultimate incidence of counsel's costs to be reserved until the originating application has been determined, or as otherwise ordered by the Court.
- (h) Leave is reserved for the applicants to apply for such further ancillary orders as are necessary.

[47] From the liquidators' application there appear to be two main issues for determination by the Court with a number of subsidiary issues flowing from this. As to the two main issues, they seem to be:

- (a) Are cryptocurrencies a type of "property" in terms of the Companies Act and, linked to this, can cryptocurrencies form the subject matter of a trust?

- (b) Was Cryptopia, in providing a cryptocurrency storage and exchange service for its customers, a trustee of the currency brought onto the exchange by accountholders and held by it?

[48] In all the present circumstances, in essence the dispute before the Court, which is one between the accountholders and the creditors, simply concerns the proprietary effects of the digital assets in relation to Cryptopia, a New Zealand company in liquidation. The dispute is not one between participants in a particular cryptocurrency system. In reality, the dispute is simply between the accountholders and the creditors (and possibly also the shareholders) of a limited liability company that operates a cryptocurrency exchange.

[49] In that respect, counsel for all parties before me agreed that the law applicable to each of the issues in this case is New Zealand law. Mr Watts, counsel for the accountholders, went further and addressed the issue of applicable law relating to this case which I acknowledge and adopt. I am satisfied for present purposes, as counsel have agreed, that New Zealand law is to apply to the present issues before me.

Issue 1 - The “property” issue

An aside – what are the implications?

[50] Before me Mr Watts for the accountholders submitted that cryptocurrencies must be seen as a form of intangible personal property both at common law and within the definition contained in s 2 of the Companies Act. The liquidators and the creditors disagree with this. The creditors also contend that cryptocurrencies are not property capable of forming the subject matter of a trust at common law.

[51] The accountholder’s position, however, is that even if cryptocurrencies are not seen as personal property in the full sense, they are still assets capable of forming the subject matter of a trust.

[52] On these aspects, Mr Watts contended that any finding by this Court that cryptocurrencies are not property would have profound and unsatisfactory implications for the law in New Zealand including in particular insolvency law,

succession law, the law of restitution and commercial law more generally. Mr Watts maintained that Ms Cooper for the creditors is wrong to argue that these problems are sufficiently important that they should be left to Parliament for an appropriate remedy.

[53] Turning to this first question as to whether the digital assets have the indicia of “property” and can form the subject matter of a trust, it is important to say something first about the general background to this issue.

[54] Given that the application before the Court seeks directions as to how the liquidators should distribute the digital assets, the creditors’ position is that the digital assets, along with Cryptopia’s other remaining assets should be distributed on a *pari passu* basis, treating all accountholders and other unsecured creditors equally.

[55] The position taken by the accountholders here is different, however. They say that the digital assets belong to them and, if need be, are held by Cryptopia in trust for the accountholders. As such those digital assets should be divided by currency and distributed to accountholders in proportion to their holding of each particular cryptocurrency as recorded in Cryptopia’s SQL database.

[56] Leaving aside those digital assets in issue here and the money held on trust to back the New Zealand dollar tokens (NZDTs), Cryptopia’s assets on liquidation consist of:

- (a) a little over NZD 686,000 held in a bank account;
- (b) fixed assets with a book value of NZD 2 million but a likely realisable value as low as NZD 100,000; and
- (c) 344 bitcoin (having a present value of approximately NZD 4.6 million) recorded as being held by Cryptopia for its own account.

[57] It is clear, therefore, that the pool available to creditors, which I understand number about 37 different parties, if the remaining digital assets are found to be held by Cryptopia on trust, would be around NZD 5.4 million. This would mean that any creditors who were not also accountholders would recover less than 50 per cent of the

amount of their claims, given that it seems the total value of all creditors' claims is an estimated NZD 12.7 million (including about NZD 5 million owed to the Inland Revenue Department).

[58] There may also be an issue here, according to Ms Cooper, for those accountholders who lost all their various holdings in the hack. In this regard, as I understand it, holders of ethereum cryptocurrency lost 100 per cent of their holdings in the hack. Thus, if the digital assets were divided by currency and in proportion to an accountholder's holding of each currency, those holders would receive nothing.

[59] Ms Cooper has said that, in contrast, if the digital assets were to be available for distribution to all accountholders and creditors on a *pari passu* basis, the total pool of assets she estimates would be approximately NZD 217 million and the percentage recovery by each creditor would then be likely to be over 85 per cent of its total claim.

[60] I set out these matters purely by way of background information. Mr Watts has properly identified that, even if they are accurate, these possible results are not strictly relevant and have no bearing on the true legal position to be reached by this Court in making its assessment of the questions before it.

[61] I return now to consider what is the proper assessment of the Digital Assets here. Before me, all parties appeared to agree that the Digital Assets are "assets" in terms of the general definition of this word in certain sections of the Companies Act where this word appears.⁴

[62] On the issue as to whether cryptocurrencies are a type of "property", however, the parties differ markedly. And, in any event, a first question must be asked why does this matter?

⁴ Companies Act 1993, s 253, addresses the principal duty of a liquidator to take possession of, protect, realise and distribute "assets" of the company to its creditors. Section 313 too deals with distribution of a company's surplus "assets".

What is “property” and why does it matter here?

[63] Sarah Green, in a chapter called “Cryptocurrencies in the Common Law of Property” in her and David Fox’s text *Cryptocurrencies in Public and Private Law* addresses this question:⁵

Property law matters both internally and externally to a cryptocurrency system. Internally – among the users of the system – property law is a justifiable ground for the recovery of coins or their value when they are stolen or transferred by fraud. The irreversibility of cryptocurrency transactions, in a purely technological sense, need not bar the reversal of their legal effect or the recognition that they are legally defective. Property law has its own systemic norms.

Essentially – to third parties dealing with users of the system – the recognition of cryptocurrencies as objects of property is no less important. It is only a matter of time before cryptocurrencies are used in transactions external to the block chain. Property is a gateway to many standard forms of transactions. A crypto-coin can never become the subject matter of a trust or a proprietary right of security, nor will it be an asset in a deceased’s person’s estate, unless it is first recognised as an object of property. The same is true of a secured creditor or trust beneficiary enforcing their claim in property to the unsecured creditors of an insolvent coin-holder. The development of a viable cryptocurrencies derivative market may sometimes require that the primary assets from which secondary claims are constructed are capable of legal recognition as property.

[64] And, in the UK Jurisdiction Taskforce’s *Legal Statement on Cryptoassets and Smart Contracts*, there is a specific section entitled “What is property, and why does it matter?”⁶ In this section the following paragraphs are useful to note:

35. Strictly, the term property does not describe a thing itself but a legal relationship with a thing: it is a way of describing a power recognised in law as permissibly exercised over the thing. The fundamental proprietary relationship is *ownership*: the owner of the thing is, broadly, entitled to control and enjoy it to the exclusion of anyone else. However, ownership is just one kind of property right: property is a comprehensive term and can be used to describe many different kinds of relationship between a person and a thing.
36. Why does it matter if a cryptocurrency asset is capable of being property. It matters because in principle proprietary rights are recognised against the whole world, whereas other – personal – rights are recognised only against someone who has assumed a relevant legal duty. *Proprietary rights are of particular importance in an insolvency, where they generally have priority over claims by*

⁵ Sarah Green “Cryptocurrencies in the Common Law of Property” in David Fox and Sarah Green (eds) *Cryptocurrencies in Public and Private Law* (Oxford University Press, Oxford, 2019) at 141.

⁶ *Legal Statement on Cryptoassets and Smart Contracts*, above n 2.

creditors, and when someone seeks to recover something that has been lost, stolen, or unlawfully taken. They are also relevant to the questions of whether there can be a security interest in a crypto asset and whether a crypto asset can be held on trust.

37. The term *property* is also part of the lexicon of the law: it is widely used in statutes and cases. It is important to understand whether the many statutory and common law rules applicable to property apply also to crypto assets and, if so, how. *Of particular significance are the rules concerning succession on death, the vesting of property on personal bankruptcy, the rights of liquidators in corporate insolvency, and tracing in cases of fraud, theft or breach of trust. It would, to say the least, be highly unsatisfactory if rules of that kind had no application to crypto assets.*

(emphasis added)

[65] And:

41. Some take the view that the design of crypto assets means that there is no need for traditional legal rules or processes. Law is irrelevant, it is sometimes said, because dealings are effected by non-legally-binding consensus between users, because cryptographic authentication and validation using strong encryption methods makes dealings irreversible, and because decentralisation and disintermediation means that there is no responsible party who can be compelled to act at the direction of a court. We do not agree. *The design of crypto assets may create some practical obstacles to legal intervention but that does not mean that crypto assets are outside the law.*

(emphasis added)

[66] As I have noted above, Mr Watts suggested too that a finding that cryptocurrencies are not property would have profound and unsatisfactory implications for New Zealand's law, including insolvency law, succession law, law of restitution and commercial law more generally.

[67] Before me, although it seems the creditors may have recently changed their position here to some extent, essentially, they now contend that cryptocurrencies are not property nor are they capable of forming the subject matter of a trust at common law. The accountholders strongly dispute this position. Mr Watts contends that it should be a reasonably straightforward exercise for this Court to find that cryptocurrencies are in general a species of intangible personal property and are capable of being the subject matter of a trust.

[68] And, before me, Mr Watts provided detailed and extensive submissions on this issue as to the status of cryptocurrencies as property for two reasons:

- (a) This was given, first, the new opposition now from counsel to the creditors broadly accepted by counsel for the liquidator over this point; and
- (b) Secondly, the fact that the status of cryptocurrencies as property has attracted significant attention around the common law world in recent years without, it seems, as yet receiving a definitive judicial analysis.

[69] For present purposes it will become apparent that I reach the conclusion that the cryptocurrencies here situated in Cryptopia's exchange are a species of intangible personal property and clearly an identifiable thing of value. Without question they are capable of being the subject matter of a trust. I will now set out my reasons for this conclusion.

The authorities

[70] This first issue outlined at para [46](a) of this judgment asked the specific question whether any or all of the digital assets held by the liquidators are "property" within the definition outlined in s 2 of the Companies Act.

[71] That section defines "property" as:

...property of every kind whether tangible or intangible, real or personal, corporeal or incorporeal, and includes rights, interests, and claims of every kind in relation to property however they arise.

[72] Although there is a certain circularity with this definition, it is nevertheless inclusive and wide in that it extends "property" for the purposes of the Act to include "rights, interests, and claims of every kind in relation to property however they arise."

[73] Courts in New Zealand have accepted that the definition of "property" in the Companies Act is a "wide" one and includes "money" despite money not being expressly included in the terms of the s 2 definition. This is clear from the

Supreme Court decision in *McIntosh v Fisk*.⁷ There, the Court accepted it was arguable that “the payment of money by RAM would fall within s 292(3)(a) as a transfer of property by RAM due to the wide definition of “property” in s 2 of the Companies Act.”⁸

[74] Further, in *Chapman v Effective Fencing Ltd*, Associate Judge Faire held:⁹

The definition of “property” in s 2 in referring to “every kind” of property, is wide enough to cover money. Clearly money is “tangible” and “personal” property in terms of the definition.

[75] Lord Wilberforce’s opinion in the House of Lords in *National Provincial Bank Ltd v Ainsworth* is often cited as the classic statement of the characteristics of “property”.¹⁰ There, his Lordship said:

Before a right or an interest can be admitted into the category of property, or of a right affecting property, 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.

I will return to this definition shortly.

[76] But first, I turn to several recent cases where the question of cryptocurrencies as “property” has been addressed to some extent. The first is a Singaporean case, *B2C2 Ltd v Quoine Pte Ltd*, which Ms Cooper in particular considered to be an important decision, given its factual setting was not dissimilar to the present case.¹¹

B2C2 Ltd v Quoine Pte Ltd

[77] Initially this involved a 2019 first instance decision of the Singapore International Commercial Court, a new division of the High Court of Singapore created in 2015. That decision was then appealed to the Court of Appeal of Singapore and was the subject of a lengthy appeal judgment delivered this year.¹² In the lower

⁷ *McIntosh v Fisk* [2017] NZSC 78, [2017] 1 NZLR 863.

⁸ At [55].

⁹ *Chapman v Effective Fencing Ltd* HC Auckland CIV-2004-404-5905, 21 April 2005 at [34].

¹⁰ *National Provincial Bank Ltd v Ainsworth* [1965] AC 1175 (HL) at 1247–1248.

¹¹ *B2C2 Ltd v Quoine Pte Ltd* [2019] SGHC(I) 3, [2019] 4 SLR 17 [*B2C2* (SGHC)].

¹² *Quoine Pte Ltd v B2C2 Ltd* [2020] SGCA(I) 2 [*B2C2* (SGCA)]

court, all parties accepted that cryptocurrencies were a species of “property”, a concession which the judge, Thorley IJ¹³ accepted was rightly made.

[78] The case concerned a Singaporean cryptocurrency exchange operated by Quoine, in many ways like Cryptopia, 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 cryptocurrencies 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.

[79] 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.

[80] 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:¹⁴

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. Quoine drew my

¹³ The “IJ” judicial office abbreviation refers to International Judge, an office of the Supreme Court of Singapore. Thus, references to Thorley IJ are to be read as “International Judge Thorley”.

¹⁴ At [142].

attention to the classic definition of a property right in the House of Lords decision of *National Provincial Bank v Ainsworth* [1965] 1 AC 1175 (HL) at 1248:

...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.

Cryptocurrencies meet all these requirements. Whilst there may be some academic debate as to the precise nature of the property right, in the light of the fact that Quoine does not seek to dispute that they may be treated as property in a generic sense, I need not consider the question further.

[81] In the proceeding, as I have mentioned, B2C2 had alleged that Quoine’s reversal of the disputed trades was in breach of contract and breach of trust. On the trust point there were no express words in Quoine’s terms and conditions indicating an intention to create a trust. However, B2C2 argued Quoine had shown an intention to create a trust by holding traders’ cryptocurrency in separate digital wallets from Quoine’s own assets. Against that, Quoine submitted that a Risk Disclosure Statement it had provided notified customers that assets were not deposited in a trust account so customers may lose their assets in the case that Quoine was to be bankrupted or go into liquidation.

[82] The High Court, in considering the first instance claims brought by B2C2, allowed them both on the basis of breach of contract and breach of trust. In finding there was a trust, the Court there held that the “decisive factor” was that the assets were held separately as members’ assets rather than as part of Quoine’s trading assets. The decision was appealed to the Court of Appeal as I have noted. On appeal the majority upheld the High Court’s decision on the breach of contract aspect but overturned the decision on the breach of trust cause of action. On that breach of trust claim, a majority of the Court of Appeal rejected the International Judge’s view that it was a “decisive factor” that the assets were held separately rather than as part of Quoine’s trading assets. The Court of Appeal found the mere fact Quoine’s assets were segregated from its customers cannot in and of itself lead to the conclusion that there was a trust. Further discussion of this trust aspect will follow later in my judgment.

[83] On the “property” question, in its decision, the Court of Appeal also declined to decide whether Bitcoin as the cryptocurrency in question was “property” capable

of forming the subject matter of a trust. In their decision the Court of Appeal in the majority judgment, delivered by Menon CJ, commented:¹⁵

There may be much to commend the view that cryptocurrencies should be capable of assimilation into the general concepts of property. There are, however, different 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.

[84] This comment from the Court of Appeal, although not definitive, along with similar suggestions from other authorities, in my view, are of some help when considering this question as to whether the digital assets here could be regarded as “property”.

Other authorities

[85] A second case perhaps supporting this interpretation is a 2018 decision in *Vorotyntseva v Money-4 Ltd*.¹⁶ There, 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’”.¹⁷ No further discussion took place on the point.

[86] 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.¹⁸ Without providing any reasoning the Court accepted that 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.

¹⁵ *B2C2 (SGCA)*, above n 12 at [144].

¹⁶ *Vorotyntseva v Money-4 Ltd* [2018] EWHC 2596 (Ch).

¹⁷ At [13].

¹⁸ *Shair.Com Global Digital Services Ltd v Arnold* 2018 BCSC 1512.

[87] Recently, a decision of the English High Court in *AA v Persons Unknown* also held that cryptocurrencies are “property”.¹⁹ 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.

[88] Only counsel for the applicant insurance company appeared at the hearing in that case and filed submissions. And, it seems the High Court there primarily relied on the *Legal Statement on Cryptoassets and Smart Contracts*, and that no other argument was addressed to the Court on the issue.²⁰

[89] It is also useful, as I see it, to turn to consider a diverse range of types of assets that have already been recognised elsewhere as “property” at equity. These examples of “property” also illustrate that they are capable of being the subject of a trust. They include:

- (a) Any simple chose in action— even an oral contract can be the subject of an orally created trust with the result that a liquidator of a corporate trustee could not pursue the chose in order to obtain a money judgment for the benefit of unsecured creditors.²¹
- (b) Non-enforceable debt claims – for example a barrister’s claim that fees be paid by the relevant instructing solicitor was recently held in *Gwinnutt v George* to be part of the property belonging to a bankrupt barrister, even though the barrister had no legally enforceable right to the fees. In the circumstances of that case, in fact there was also no contract at all between the barrister and the solicitors.²²

¹⁹ *AA v Persons Unknown* [2019] EWHC 3556, [2020] 4 WLR 35 at [57]–[59].

²⁰ *Legal Statement on Cryptoassets and Smart Contracts*, above n 2.

²¹ See *Pearson v Lehman Brothers Finance SA* [2010] EWHC 2914 (Ch) at 258.

²² *Gwinnutt v George* [2019] EWCA Civ 656, [2019] Ch 471.

- (c) Payments through the banking system – money transactions have recently ceased to involve tangible coins or banknotes and usually take the form of electronic bank payments. Equity will apply its proprietary tracing rules to payments effected by these means, even though on transfer of money from one bank account to another this does not involve the transfer of anything in the literal sense from the payer to the payee and the recipient does not hold the same asset.²³
- (d) Copyright – although copyright has statutory recognition, it nevertheless provides a strong example of intangible property. The subject matter of copyright turns merely on combinations of sounds or shapes in two or three dimensions (including words or drawings) that are sufficiently distinctive to justify the law preventing others from reproducing them.²⁴ These sounds and shapes can exist in digital form. Although the resulting intellectual property needs to be identifiable, in many cases whether there has been a copyright infringement will involve an element of judgment in the tribunal called upon to adjudicate on the associated legal rights. These rights can be made the subject matter of a trust.
- (e) Shares – shares in a company are another type of intangible property which typically has a more complicated existence than merely conferring a right to sue. Voting rights in relation to the appointment and removal of directors and in relation to other important company matters can be exercised. Shares are properly regarded as an item of property in equity even where they are non-transferrable or transferrable only to particular persons.²⁵
- (f) Licences/exemptions/quotas – modern statutory regulation frequently operated on the basis of blanket prohibitions coupled with defined

²³ See D Fox, “Property Rights in Money” Oxford University Press, Oxford, 2008, at [1.108]

²⁴ Section 14 Copyright Act 1994 sets out the statutory categories of recognised copyright, which are to include literary, dramatic, musical or artistic works, sound recordings, films, communication works and typographical arrangements of publicised editions.

²⁵ *Money Markets International Stockbrokers Ltd v London Stock Exchange Ltd* [2002] 1 WLR 1150 (Ch).

exemptions granted to individuals that allow each individual then to trade. Such exemptions function and are recognised as intangible items as property. Their value is not derived from a right to sue but rather the opposite, namely an immunity from prosecution.²⁶ Examples of this include export quotas, milk supply quotas, fishing quotas, petroleum exploration licences, waste disposal licences, and carbon credits. These tradeable rights can form the subject matter of a trust and where that happens the asset falls outside the estate of an insolvent trustee. There is a large body of case law that confirms such rights are a type of property and subject to normal property protections.²⁷

- (g) A trustee's rights of indemnity – a trustee's rights to be indemnified in respect of trust expenses has been held to confer a proprietary interest in the trust assets even though these assets are realised by self-help remedies rather than recourse to the courts: *Carter Holt Harvey Woodproducts Australia Pty Ltd v Commonwealth*.²⁸ Although these rights are not choses in action, they are a species of intangible property. The breadth of the sort of interests that may be the subject of a trust is also confirmed here at [84] as follows:²⁹

To describe [the right of indemnity] as constituting a beneficial interest in the trust assets, and so as property, thus acknowledges the characteristic blending of personal rights and obligations with proprietary interests which is the “genius” of the trust institution. Such a beneficial interest falls naturally and ordinarily within the definition of “property” in s 9 of the Corporations Act.

Although a number of the examples outlined above do involve statutory licences and quotas and are within broad statutory definitions of the word “property” in the respective jurisdictions, the types of interest capable of forming the subject matter of a trust at equity, as I see it, are no less broad. A similar point was made by Mr Stephen

²⁶ *Armstrong DLW GmbH v Winnington Networks Ltd* [2012] EWHC 10 (Ch), [2013] Ch 156.

²⁷ See by way of example *Attorney General of Hong Kong v Nai-Keung* [1987] 1 WLR 1339 at 1342 (export quotas); *Swift v Dairywise Farms Ltd* [2000] 1 WLR 1177 at 1185 (milk quota) and *Commonwealth of Australia v WMC Resources Ltd* (1998) 194 CLR 1 (petroleum exploration licences, not being an interest in land).

²⁸ *Carter Holt Harvey Woodproducts Australia Pty Ltd v Commonwealth* [2019] HCA 20, (2019) 368 ALR 390.

²⁹ *Carter Holt Harvey*, above n 28, at [84] (footnotes omitted).

Morris QC sitting as a deputy High Court judge in *Armstrong DLW GmbH v Winnington Networks Ltd*.³⁰

Whilst the cited case law concerned the meaning of “property” as specifically defined in various statutes, in my judgment, the reasoning of Morritt LJ (in *Celtic Extraction*) applies equally to the characteristics of property at common law. Indeed, Morritt LJ himself relied upon *National Provincial Bank v Ainsworth*.³¹ Moreover the terms used in statutory definitions are themselves derived from common law concepts.

[90] At this point it is useful also to interpolate three recent New Zealand cases which might be seen to be at the boundaries of the legal concept of “property”. The first is *Dixon v R*.³² In this case, which adopted a broad approach to the concept, the Supreme Court held that a digital copy of CCTV footage was “property” within the broad definition found in s 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 “property” and that making a copy of it involves a taking, even when the data is not protected by a password. The Supreme Court appeared to endorse the view that computer data would meet general definitions of property including that within s 4 of the Property Law Act 2007. Arnold J, writing the judgment of the Court, stated :³³

We consider that interpreting the word “property” as we have is not only required by the statutory purpose and context but is also consistent with the common conception of “property”.

[91] The second case, a decision of Thomas J in the High Court is *Henderson v Walker*.³⁴ In that case Thomas J was prepared to apply the principles of *Dixon* in a private law setting and to extend the tort of conversion to purely personal digital information, including the content of private emails. However, her Honour also concluded merely making a copy of emails and other personal data would not amount to conversion. Refusing access to them or destroying them would be, nevertheless.

³⁰ *Armstrong DLW GmbH v Winnington Networks Ltd*, above n 26 at [59] (citation omitted, footnote added).

³¹ *Ainsworth*, above n 10.

³² *Dixon v R* [2015] NZSC 147, [2016] 1 NZLR 678.

³³ At [51] (footnotes omitted).

³⁴ *Henderson v Walker* [2019] NZHC 2184.

[92] In that case, Mr Walker in his capacity as liquidator of subsidiary companies of Property Ventures Limited (PVL) came into possession of a laptop belonging to PVL and of a tape drive that was a backup of PVL’s server. There were a lot of personal, non-company emails sent by and to Mr Henderson, a principal of PVL, and some personal photographs on those devices. Mr Walker distributed at least some of these or allowed them to be distributed to third parties who should not have received this material. Mr Henderson sued Mr Walker, pleading some seven causes of action including breach of confidence, invasion of privacy and conversion. Thomas J held that in principle the common law action in conversion was available with respect to some of the actions which had occurred involving the computer data.

[93] In my view, it is reasonable to conclude that the reasoning of Thomas J that this data was effectively “property” capable of being converted, could be properly extended to wrongful interferences with cryptocurrency or digital assets. Any person who gained unauthorised access to the private key attached to cryptocurrencies and used it would permanently deprive the proper possessor of the cryptocurrencies of that property and its value.

[94] Another recent High Court decision in New Zealand, *Commissioner of Police v Rowland*, is also usefully noted here.³⁵ In that case this Court approved a settlement 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. The definition of “property” in the Criminal Proceeds (Recovery) Act at s 5 provides:

property—

- (a) means real or personal property of any kind—
 - (i) whether situated in New Zealand or a foreign country; and
 - (ii) whether tangible or intangible; and
 - (iii) whether movable or immovable; and

³⁵ *Commissioner of Police v Rowland* [2019] NZHC 3314.

- (b) includes an interest in real or personal property

[95] Turning back to the decisions noted above in *Dixon* and *Henderson*, in those cases the New Zealand courts involved have accepted that the orthodox position that information is not “property” does not attach to cases involving digital assets. There, digital files were seen as “property” by distinguishing them from “pure information”.

[96] So far as the Supreme Court was concerned in *Dixon v R*, in the context of the Crimes Act 1961, this was because the files (the digital footage) there:

- (a) could be identified;
- (b) had a value;
- (c) were capable of being transferred; and
- (d) had a physical presence, albeit one that could not be detected by means of unaided sensors.

[97] In Thomas J’s decision in this Court in *Henderson*, in the context of the tort of conversion, this was because it was possible to control and therefore possess the digital files (a large number of documents, emails and images). Possession required cognitive control and manual control. While traditionally the tort of conversion requires physical control and therefore tangibility, physical control is only one example of manual control. The two fundamental elements of manual control are excludability and exhaustibility – whether others can be excluded from the thing’s control and when the thing’s value can be deprived from others. In her decision Thomas J considered both were satisfied on the facts because:

- (a) As to excludability: digital files have a material presence. They physically alter the medium on which they are held. The physical presence allows others to be excluded from the digital asset, either by physical control of the medium or by password protection.

- (b) As to exhaustibility: digital files can be deleted or modified so as to render them useless or inaccessible.

[98] These principles, in my view, apply equally in the present case to the cryptocurrencies at issue.

[99] I turn now to the Companies Act. In that Act reference is made to both “property” and “assets”. Assets are not defined in the Act other than the section specific definition at s 129 which applies to “major transactions”. Section 129(2) provides:

...**assets** includes property of any kind, whether tangible or intangible

That definition is expressly limited to s 129 and the use of inclusive language supports the finding that the term “asset” might possibly be seen as wider in scope than “property”.

[100] The powers of liquidators in the Act are generally expressed to be over a company’s “assets”:

- (a) Section 248(1)(a) provides that:

The liquidator has custody and control over the company’s assets.

- (b) Section 253 characterises the principal duty of a liquidator as:

- (a) to take possession of, protect, realise and distribute the assets, or the proceeds of the realisation of the assets, of the company to its creditors in accordance with the act; and
- (b) if there are surplus assets remaining, to distribute them, or the proceeds of the realisation of the surplus assets, in accordance with s 313(4) in a reasonable and efficient manner.

[101] The term “asset” is used elsewhere in the Companies Act:

- (a) The solvency test: the relevant limb of the test here is that: “the value of the company’s assets is greater than the value of its liabilities...”³⁶

³⁶ Companies Act, s 4(1)(b).

(b) Section 237 provides that the Court may make additional orders relating to (among other things):

...

(a) the transfer or vesting of real or personal property, assets, rights, powers, interests, liabilities, contracts, and engagements:

...

(c) Clause 1(1) of sch 7 requires the liquidator to pay:

...

(e) to any creditor who protects, preserves the value of, or recovers assets of the company for the benefit of the company's creditors by the payment of money or the giving of an indemnity,—

(i) the amount received by the liquidator by the realisation of those assets, up to the value of that creditor's unsecured debt; and

(ii) the amount of the costs incurred by that creditor in protecting, preserving the value of, or recovering those assets.

The four requirements for a “property” interest

[102] I return now to the classic statement of the characteristics of “property” outlined by Lord Wilberforce in *Ainsworth* essentially to recognise what constitutes a “property” interest, and then to apply this to each cryptocurrency at issue here.³⁷ In doing so, I need to say at the outset that I am satisfied the criteria for Lord Wilberforce’s definition of “property” are clearly met in this case. I say this bearing in mind the indications I have outlined from the range of authorities noted above that support this conclusion. This is also in line with the approach adopted in the *Legal Statement on Cryptoassets and Smart Contracts* noted above.³⁸

[103] Lord Wilberforce’s long-applied statement is outlined at [75] above. It outlines four requirements that I now address in turn.

³⁷ *Ainsworth*, above n 10.

³⁸ *Legal Statement on Cryptoassets and Smart Contracts*, above n 2, at [21].

(a) *Identifiable subject matter*

[104] The first requirement is that the asset in question needs to be definable. It needs to be capable of being isolated from other assets whether of the same type or of other types and thereby identified. It is possible, however, for there to be co-ownership (either at law or in equity) of a definable share of an identified bulk of like assets. The present situation, as I see it, is one of this sort.

[105] Computer-readable strings of characters recorded on networks of computers established for the purpose of recording those strings, as I see it, are sufficiently distinct to be capable of then being allocated uniquely to an accountholder on that particular network. For the cryptocurrencies involved here, the allocation is made by what is called a public key – the data allocated to one public key will not be confused with another. This is the case even though the identical data is held on every computer attached to the network. Indeed, the working of the system is such that the distribution of the data across a large network of computers, when combined with cryptography that prevents individual networks from altering historic data over the network, assists in giving that data stability. It is these features that provide the basic underpinning for the existing cryptocurrencies.

[106] This is in large measure similar to what occurs in the banking system where large and trusted international banks record balances in various numbered bank accounts held with them. The identifiability provided by cryptocurrency data recorded in the network of computers (called the “distributed ledger”) is no less than the identifiability which results from the bank’s inclusion of balances in their customers’ numbered bank accounts. Equity regards such recorded bank balances as a type of property owned by the party in whose favour the balance is recorded.

[107] The developer of the most widely known cryptocurrency (Bitcoin), Satoshi Nakamoto, who I have referred to above, argued in 2008:³⁹

...an electronic payment system based on cryptographic proof instead of trust, allowing any two willing parties to transact directly with each other without the need for a trusted third party...

³⁹ Satoshi Nakamoto “Bitcoin: A Peer-to-Peer Electronic Cash System” (31 October 2008) Bitcoin <<https://bitcoin.org/bitcoin.pdf>> at 1.

will provide superior stability and reliability compared to the traditional banking system.

[108] It is also the case, as I see it, that the public key so allocated to a cryptocurrency account might also be argued to be more readily identifiable than some asserted rights for example to copyright (which is acknowledged as “property”) where issues of originality may be at play.

(b) Identifiable by third parties

[109] The second component of property outlined by Lord Wilberforce is that the thing needs to be identifiable by third parties. This element alludes to the thing identified having to have an owner capable of being recognised as such by third parties. The degree of control over the type of asset that a person has to have before the law recognises it as capable of being owned must involve an element of judgement but again I am satisfied here that cryptoassets clearly meet this criterion.

[110] On this aspect, it has long been recognised by property lawyers that the power of an owner to exclude others from an asset provides a more important indicator of ownership than the power actively to use or benefit from that asset.

[111] The unique strings of data recording the creation of and dealings with cryptocurrency are always allocated via the public key to a particular account holder connected to the system. But that allocation by itself is unlikely to be recognised as creating an item of property if there is no element of excludability. So, if that account holder’s personal connection to the data via the public key could be lost through any person connected with the network being able to reallocate the cryptocurrency to any other colleague on the network without the consent of the account holder, there might be some doubt whether the law would conclude that the account holder owned the key.

[112] The degree of control necessary for ownership (namely the power to exclude others) is achieved for cryptocurrencies by the computer software allocating to each public key a second set of data made available only to the holder of the account (the private key), and requiring the combination of the two sets of data in order to record a

transfer of the cryptocurrency attached to the public key from one account to another. A varied public key and a new private key for the cryptocurrency are generated after each transfer of cryptocurrency. The private key, in effect, is like a PIN. Anyone who learns of the private key attached to a public key can transfer the public key but the private key, having been used once in respect of the public key, cannot be used again.

[113] These features of cryptocurrencies inhibit two potential practices. First, the existence of the private key inhibits the possibility of involuntary transfers – it gives the power to exclude third parties from access. And secondly, the creation of a new private key after each transfer or disposition inhibits a holder from purporting to transfer the cryptocurrency data twice.

(c) Capable of assumption by third parties

[114] The third of Lord Wilberforce’s criteria, namely that the right or interest in question must be capable of assumption by third parties, generally involves two aspects:

- (a) Third parties must respect the rights of the owner in that property and will be subject to actions expressly devised by the law to give effect to proprietary rights if they assert their own claim to ownership without justification. Property has been said by its nature to be concerned with legal rights that affect strangers to bilateral transactions.⁴⁰ These third parties will also include insolvency officials of an insolvent trustee; and
- (b) Normally, but not always, an asset recognised by the law as an item of property will be something which is potentially desirable to third parties such that they would want themselves to obtain ownership of it. It might not matter that an asset has no current market value if there has been a market for the asset in the past. For example, in the case where polluted land has excessive clean-up costs, it may be worthless, but it will still be regarded as property.

⁴⁰ See Fox “Cryptocurrencies in the Common Law of Property”, above n 5, at [6.10].

[115] Both aspects of this component of Lord Wilberforce’s test are reflected in comments by Lord Bridge for the Privy Council in *Attorney-General of Hong Kong v Nai-Keung*, a case concerned with a charge of theft of an export quota brought under the theft ordinance of Hong Kong:⁴¹

It would be strange indeed if something which is freely brought and sold and which may clearly be the subject of dishonest dealing which deprives the owner of the benefit it confers were not capable of being stolen. Their Lordships have no hesitation in concluding that export quotas in Hong Kong, although not “things in action” are a form of “other intangible property.

[116] I am satisfied here that cryptocurrencies meet both aspects of the assumption by third parties criterion outlined by Lord Wilberforce. There can be no doubt that cryptocurrencies can be, and many are, the subject of active trading markets.

(d) Some degree of permanence or stability

[117] The last of Lord Wilberforce’s criteria for determining whether something is capable of attracting proprietary status, in my view is also met here. This criterion requires that the thing needs to have some degree of permanence or stability, but as I see the position, it does not add much to the other three criteria noted above. It is true too that some assets will have little permanence yet undoubtedly be property, such as the example of the ticket to a football match which can have a very short life yet unquestionably it is regarded as property. Also unproblematic, as I see it, will be situations where the short life of an asset is the result of the deliberate process of transferring the value inherent in the asset so that one asset becomes replaced by another. As I have noted above, cryptocurrencies work in this manner but it is also true that bank payments use a similar process which is simply native to the type of property in question. This is not inimical to the asset’s status as property.

[118] The blockchain methodology which cryptocurrency systems deploy also greatly assist in giving stability to cryptocurrencies. The entire life history of a cryptocurrency is available in the public recordkeeping of the blockchain. A particular cryptocurrency stays fully recognised, in existence and stable unless and until it is “spent” through the

⁴¹ *Attorney-General of Hong Kong v Nai-Keung* [1987] 1 WLR 1339 (PC) at 1342.

use of the private key, which may never happen. Standard cryptocurrency systems do not provide for the arbitrary cancellation of coins.

[119] While it is possible for cryptocurrencies to be wrongfully interfered with, by someone gaining unauthorised access to the private key or by hacking the address to which an owner intends to send a coin, these risks are not markedly greater than those borne by an owner of tangible property or a person relying on the integrity of a bank account record with or without the use of a PIN.

Conclusion on the four criteria

[120] I am satisfied that cryptocurrencies meet the standard criteria outlined by Lord Wilberforce to be considered a species of “property”. They are a type of intangible property as a result of the combination of three interdependent features. They obtain their definition as a result of the public key recording the unit of currency. The control and stability necessary to ownership and for creating a market in the coins are provided by the other two features – the private key attached to the corresponding public key and the generation of a fresh private key upon a transfer of the relevant coin.

[121] This identical point is made in the *Legal Statement on Cryptoassets and Smart Contracts* which says that a cryptoasset is “a conglomeration of public data, private key and system rules.”⁴²

Possible arguments against cryptocurrency being property

[122] Two arguments that are most commonly raised to suggest that cryptocurrencies do not have the status of “property” are:

- (a) The common law recognises only two classes of personal property: tangibles and choses in action. Cryptocurrencies are said to be neither.
- (b) Information is not generally recognised as a form of “property” and cryptocurrencies might be said to be a form of information.

⁴² *Legal Statement on Cryptoassets and Smart Contracts*, above n 2, at [65].

[123] Although before me counsel for the creditors did not rely particularly on the first objection noted above, nevertheless I address it briefly. On this, I am satisfied the argument here is in fact a red-herring. This is because cases which might be perceived to be problematic in this area are not about the limits of what can be recognised as “property” but simply about the number of categories of “property” one needs. This accords with the well-known dictum of Fry LJ sitting in the English Court of Appeal in *Colonial Bank v Whinney* that all personal property must either be a chose in possession or a chose in action.⁴³ The argument follows that cryptocurrencies are neither a chose in possession nor a chose in action.

[124] Essentially here, Fry LJ in his judgment did not seem to be taking a narrow view of what can be classified as property, but rather he was simply wanting to push all examples of property into one of two categories. There is nothing, as I see it, in Fry LJ’s dictum that would lead a court to conclude that cryptocurrencies are not property. The most that could be said is that cryptocurrencies might have to be classified as choses in action. Indeed, it would be ironic that something that might be said to have more proprietary features than a simple debt is deemed not to be property at all when a simple debt qualifies.

[125] For these reasons, this first argument advanced by some to support the claim that cryptocurrency is not property in my view is readily dismissed.

[126] I turn now to the second argument suggesting that cryptocurrency does not have the status of property as noted at [122](b) above. This is to the effect that cryptocurrencies are just a type of information and that information is not property. The argument is based on the view that neither the common law nor equity recognises property in “information” and cryptocurrencies are said to be merely digitally recorded information. This argument, it is said, is supported by the 2014 decision of the English Court of Appeal in *Your Response Ltd v Datateam Business Media Ltd*.⁴⁴ In *Your Response*, the Court held that there could be no property in a database in the situation prevailing there, which involved a party contracted by a client to maintain and update a database of the client’s customers. It was held that this party had no common law

⁴³ *Colonial Bank v Whinney* (1885) 30 Ch D 261 (CA) at 285.

⁴⁴ *Your Response Ltd v Data Team Business Media Ltd* [2014] EWCA Civ 281, [2015] QB 41.

lien over the database for the fees owed to it. As I see it, however, the decision in *Your Response* does not go much further than to make a determination upon the particular facts of that case. I am satisfied it is an inconclusive precedent in a case such as the present.

[127] And, in my view, it is wrong in any event to regard cryptocurrencies as mere information because:

- (a) 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.
- (b) And, generally, as I see it, cryptocurrencies are 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.
- (c) In *Boardman v Phipps* Lord Upjohn stated:

In general, information is not property at all. It is normally open to all who have eyes to read and ears to hear.”⁴⁵

This statement appears to confirm as a principle for not regarding information as property the fact that it can be infinitely duplicated.

⁴⁵ *Boardman v Phipps* [1967] 2 AC 46 (HL) at 127.

Again, this is not true of cryptocurrencies where every public key recording the data constituting the coin is unique on the system where it is recorded. It is also protected by the associated private key from being transferred without consent.

- (d) Cryptocurrency systems provide a more secure method of transfer than a mere assignment of a chose in action. It is possible in equity for the holder of a chose in action to assign it multiple times. Only one assignment will be effective to bind the debtor but the winner may not be the first assignee in time but rather the first assignee to notify the debtor. By way of contrast, a cryptocurrency can not only be assigned in that way but it can also be sold only once.

[128] I am satisfied that cryptocurrencies are far more than merely digitally recorded information. The argument that cryptocurrency is mere information and therefore it is not property is a simplistic one and, in my view, it is wrong in the present context. I dismiss it.

Public policy arguments

[129] Lastly, I turn to certain public policy arguments here. It is widely known that at least some types of cryptocurrency are used by criminals for the transmission of funds across borders in order to pursue criminal activity and as a means of laundering the proceeds of past criminal activity. This is not exclusive, however. Cryptocurrencies have also become popular with honest people as a method of effecting payments and of investing. The traditional banking sector is itself widely reported to be already using block chain technology and to be planning to create trading platforms for cryptocurrencies.⁴⁶ Any failure by the general law to recognise cryptocurrencies as property, as I see it, would have little effect in reducing potential criminal activity. The banking system is subject to exploitation by the criminal fraternity just as other traditional assets are.

⁴⁶ For instance, the Royal Bank of Canada: Erik Hertzberg “Bank of Canada lays groundwork for digital currency” *Bloomberg News* (online ed, New York, 26 February 2020) <<https://www.bloomberg.com/news/articles/2020-02-25/bank-of-canada-lays-groundwork-for-digital-currency>>.

[130] In my view, honest commercial developments may very well be hindered by a failure of the general law to recognise cryptoassets as property. This is notwithstanding any possible need for more formal regulation of cryptocurrencies.

[131] The *Legal Statement on Cryptoassets and Smart Contracts* has also advocated dealing with the status of cryptocurrencies unencumbered by other legal issues including the need for regulation.⁴⁷ Similarly, in those cases where the status of cryptocurrencies as property has been assumed or conceded, including those I have noted above, no court has felt obliged to take a public policy objection. Further, before me Ms Cooper for the creditors raised no particular public policy arguments.

[132] Overall, I am of the view that public policy questions here do nothing to harm the accountholders' contention that cryptocurrencies do have the status of property.

Conclusion

[133] The answer to the question posed at [46](a) above is yes. I find that, for the reasons outlined above, all of the various cryptocurrencies are "property" within the definition outlined in s 2 of the Companies Act and also probably more generally. In addition, these digital assets, I find, being property, are capable of forming the subject matter of a trust.

Issue 2 - The trusts issue

[134] The second question relates to the issue whether any or all of the digital assets are held on trust for accountholders (whether by way of express, implied, resulting, constructive, Quistclose trust or otherwise). If the answer to this question is yes in any respect, then a range of further questions arise which are:

- (a) When did the trust(s) come into existence? When the company updated its terms and conditions on 7 August 2018 ("the amended terms"), or some alternative date?
- (b) What are the terms of the trust(s)?

⁴⁷ *Legal Statement on Cryptoassets and Smart Contracts*, above n 2, at 10 – 11.

- (c) Are the digital assets held on trust:
- (i) in an individual trust for each accountholder, with the result that each accountholder is the sole beneficiary of the trust?
 - (ii) in one trust for the benefit of all accountholders with the result that all accountholders are co-beneficiaries of the same trust?
 - (iii) in multiple trusts for the benefit of specific groups of accountholders with the result that accountholders within a specific group are co-beneficiaries of the same trust? or
 - (iv) on some other basis?

A. The primary issue – are the digital assets held on trust for accountholders?

[135] On the primary question, the position advanced by the accountholders that the digital assets here are held on trust for the accountholders is strongly disputed by the creditors. That overall position for the accountholders is that Cryptopia is a trustee for the accountholders of the cryptocurrency it held for those parties as set out in the SQL database. The accountholders say first, the relevant trusts involve one separate trust for each type of cryptocurrency and secondly, the trusts all existed before any amended terms on 7 August 2018 may have come into effect. If this is not the case then they say, in any event, the amended terms simply confirmed Cryptopia's trustee status.

[136] In response, the creditors' position is that any trust here is denied and accordingly it must follow first, that the accountholders are simply unsecured creditors of Cryptopia and secondly, that the subsidiary questions outlined at [134] above do not arise.

[137] There are four main areas of difference between the accountholders and the creditors regarding this trusts issue:

- (a) The extent to which the Court can infer a trust in the present situation with what are said to be limited or no express verbal declarations to that effect.
- (b) As a matter of construction, was Cryptopia’s principal duty in its exchange only to deliver a fixed quantity of currency when called for or was it to hold the relevant pools of cryptocurrency (including cryptocurrency that accountholders had themselves brought onto the platform) on behalf of those accountholders and to deal with each accountholder’s share in the pool as directed by that party? (This would also obviously include Cryptopia itself as a beneficiary with respect to its own specific holdings of cryptocurrency which it held personally on the exchange).
- (c) The relevance to the trusts issue of the powers and amenities given to cryptocurrency in Cryptopia’s terms and conditions provided to accountholders.
- (d) Did the amended terms and conditions:
 - (i) Affect a variation of the trusts?
 - (ii) Apply automatically to all accountholders from 7 August 2018?

[138] Turning to the primary contention advanced by Mr Watts for the accountholders that an express trust has been created here, comments in *Equity and Trusts in New Zealand* are usefully repeated:⁴⁸

4.2.1 Introduction

To create a valid express trust, not only must any necessary formalities and the rule against perpetuities...be complied with, but three “certainties” must be satisfied.

The three certainties are:

⁴⁸ Andrew Butler (ed) *Equity and Trusts in New Zealand* (2nd ed, Thomson Reuters, Wellington, 2009) at [4.2.1] (footnotes and cross-references omitted).

- (a) intention;
- (b) subject matter; and
- (c) objects.

Certainty of intention is necessary to ensure the onerous burdens of trusteeship are not lightly imposed, while certainty of subject matter and objects is necessary to ensure the possibility of judicial supervision over the actions of the trustees and, ultimately, to ensure the court can administer the trust if the trustees cannot be found or fail to act properly. Where there is no certainty of intention, no trust exists, and the person holding legal title is the full owner. However, where it is clear that a trust was intended, but there is no certainty of subject matter and/or objects, the property falls into residue or is applied to a gift over as the case may be.

[139] As to the issue of certainty of intention to create a trust, some useful comments are expressed in *Jacobs' Law of Trusts in Australia* which states:⁴⁹

Certainty of intention to create a trust

5.02 A court cannot hold that an express trust exists unless it is satisfied that there was the intention to create such a trust. The question will be whether there is language or conduct which shows a sufficiently clear intention to create such a trust. No formal or technical words are required; any apt expression of intention will do. The conclusion that the intention existed may be drawn as an inference from the available evidence. In order to infer intention, the Court may look to the nature of the transaction and the whole of the circumstances attending the relationship between the parties and known to them, including commercial necessity. If the inference to be drawn is that the parties intended to create or protect an interest in a third party and the trust relationship is the appropriate means of creating or protecting that interest or of giving effect to the intention, then an intention to create a trust may be inferred. Such a trust is an express, not a constructive trust and the earlier reluctance to infer such a trust no longer obtains, at least in Australia.

The overall question is whether in the circumstances of the case, and on the true construction of what was said and written, a sufficient intention to create a trust has been manifested. It is not necessary that the creator of the trust should know that the particular relationship intended to be created is in law a trust. A trust will be created, whether or not the creator is aware of it, provided that in substance the creator's actions have the legal effect of creating the relationship which is known in law as a trust...In commercial documents, there will often be no suggestion that the parties in their written instrument did not mean what they said, or said what they meant. In such cases where there is no sham or illegality, the use of language expressing a trust in terms will be effective to supply the requisite intention.

⁴⁹ JD Heydon, MJ Leeming and KS Jacobs *Jacobs' Law of Trusts in Australia* (8th ed, LexisNexis, Sydney, 2016) at [5.02].

Application to the facts of the present case

[140] I turn first to determine the question whether the cryptocurrencies in issue here were held on an express trust by considering the three certainties needed outlined at [138] above.

Certainty of subject matter

[141] It is useful to begin with a consideration of certainty of subject matter. On this, as I have found above, at law cryptocurrencies are “property” and are able to form the subject of a trust.

[142] Here, the principal evidence relied upon is found in the affidavits of Mr Ruscoe and Mr Brocket. The issue arises here whether it can be established in fact which cryptocurrencies are subject to what trusts.

[143] As a cryptocurrency exchange, Cryptopia maintained its own database of the accountholders and digital assets that it controlled, as I have noted, called the SQL database. The liquidators as I understand it are still in the process of reconciling this database.

[144] What is clear here from the evidence before me is that in the current circumstances it appears all cryptocurrency holdings were held on trust by Cryptopia, although Cryptopia was itself one of the beneficiaries of some trusts relating to cryptocurrency which the company had itself introduced.

[145] The accountholders’ position is that there was a single trust created for each relevant cryptocurrency.⁵⁰ Beneficial co-ownership of the relevant currency was shared by relevant accountholders in proportion to the numbers of relevant cryptocurrencies that they had each contributed (either initially when new coins were acquired or as a result of trades between accountholders).

⁵⁰ It appears there were some 900 types of cryptocurrency traded on Cryptopia’s exchange of which some 400 have now been de-listed.

[146] As I have noted, Cryptopia was itself a beneficiary of some of those trusts for cryptocurrency it held itself. This applied whether it related to cryptocurrency held in hot wallets or cold wallets for the respective cryptocurrency.

[147] Cryptopia itself kept and stored the private keys associated with acquisitions of each cryptocurrency in this case so that accountholders did not know the private key associated with any particular coin. There is no evidence before the Court to indicate the Cryptopia was a bailee of any currency. The subject matter of the various trusts being the cryptocurrencies was clearly recorded in Cryptopia's SQL database records and I am satisfied this provided sufficient certainty of subject matter here.

Certainty of objects

[148] Here, I find that clearly from the point of view of principle, there can be no uncertainty in this case as to who the beneficiaries of the relevant trusts were. They can be taken to be those with positive coin balances for the respective currencies in Cryptopia's SQL database subject to such adjustments as may be needed when all remaining evidence in this case comes in. This is in line with Simon Thorley J's decision in *B2C2* where his Honour concluded on the facts of that case that the beneficiaries of the single trust of cryptocurrency at issue were sufficiently certain, as they "...are identifiable from the individual accounts of each of the members."⁵¹

[149] Although it is true here that, as the liquidators have indicated, they may have some difficulties finding out the true identities of some of the accountholders and making contact with them, meaning some evidential uncertainty may arise, the result may mean simply that particular beneficial interest claims in the cryptocurrency may not be established. However, as I see it, this would not invalidate the trust for those whose precise identities can be shown. Evidential uncertainty does not defeat a trust.⁵²

[150] In my view, there is no question that the requirement for certainty of objects is established here.

⁵¹ *B2C2 (SGHC)*, above n 11 at [143].

⁵² *Re Baden's Deed Trusts (No 2)* [1973] 1 Ch 9 (CA) at 19–20.

Certainty of intention

[151] The last of the requirements for a valid express trust is an intention in the settlor(s) to create a trust, objectively assessed.

[152] Here the accountholders suggest that it is only necessary to show that Cryptopia intended to hold the digital assets on trust even though such an intention was probably held also by the accountholders themselves when transferring coins to Cryptopia.

[153] On this, I am satisfied that Cryptopia manifested its intent through its conduct in creating the exchange without allocating to accountholders public and private keys for the digital assets it commenced to hold for them. The SQL database that Cryptopia created showed that the company was a custodian and trustee of the digital assets and effect needs to be given to this.

[154] In addition, Cryptopia did not intend to and did not trade in the digital assets in its own right according to the evidence before me except to the extent that it too was a beneficiary of the trusts established.

[155] As to the question when the intent to create the trusts was manifested, I am satisfied a trust came into existence for each of the cryptocurrencies as soon as Cryptopia came each time to hold a new currency for accountholders. Trusts in respect of each currency that Cryptopia held arose on those particular dates and certainly before 7 August 2018. I make that finding without needing to rely specifically on the amended terms created by the variation document. And, in any event, as I note above, Cryptopia's last director of finance and administration, Mr Brocket, in his uncontested evidence, confirmed that effectively there was no material change to the way the business operated that resulted from the August 2018 variation to the terms and conditions.

[156] Finally, it is not unusual in a case of an express trust for there to be a lack of some documentation as is apparent with Cryptopia's exchange platform in the present case.

[157] For completeness, I note also a number of factors here which support the conclusions I have reached which are:

- (a) At common law express trusts of personal property can come into existence and be evidenced orally or as a result of conduct including simply by force of the circumstances as between relevant parties.⁵³
- (b) It is not really necessary, even in a commercial context, that the settlor or other party involved in the relationship understand what a trust is, if the conduct including the arrangements between the parties objectively suggests that a trust was the appropriate legal consequence.⁵⁴
- (c) It is not a significant indicator against a trust that the fungible property of one party is mixed with the fungible property of another in a single pool, nor that the content of that pool and the identity of the beneficiaries is constantly changing.

[158] On this last aspect, before me Ms Cooper for the creditors placed particular reliance on a decision of the Privy Council *Re Goldcorp Exchange Limited (In Receivership)*.⁵⁵ In this case the New Zealand company Goldcorp in receivership was a gold dealer. Essentially as part of its business it sold gold bullion to customers. The sales were to members of the public who had purchased “non-allocated” gold and received a “certificate of ownership” stating that the company would store and insure the gold for the customer. Brochures and oral statements from the company indicated that the customers’ gold would be stored in a large bulk and audited “to ensure there are sufficient stocks to meet all commitments”. The company went into receivership.

[159] The *Goldcorp* case was essentially a Sale of Goods Act case. After noting that no legal or equitable title could have passed to the customers merely on the basis of the contract of sale (given it was a sale of unascertained, generic goods) the Board

⁵³ *Levin v Ikiua* [2010] NZCA 509, [2011] 1 NZLR 678; *Pearson v Lehman Brothers Finance SA* [2010] EWHC 2914 (Ch); *B2C2* (SGHC); and *Re Harvard Securities Ltd (in liq)* [1997] 2 BCLC 369 (Ch) at 371.

⁵⁴ *Pearson*, above n 53.

⁵⁵ *Re Goldcorp Exchange Limited (In Receivership)* [1994] 3 NZLR 385 (PC).

went on to consider whether the collateral promises found in the brochures and representations were effective to create a trust in favour of the customers. With respect to the non-allocated customers, the Board held that no trust existed.

[160] There is no doubt that in *Goldcorp* customers were told duplicitous things when they purchased gold from the company. The misrepresentations made and the deceptions were huge and resulted in the company's managing director being charged criminally, convicted and imprisoned. The Privy Council had looked at whether there was a restitutionary trust but this argument for a trust was only collateral to a sale of goods argument for the sale of unascertained goods. It failed on its own facts in the *Goldcorp* situation for lack of certainty of subject matter and intention. The present case before me is quite different. It does not involve tangible goods and here Cryptopia is generally not a seller (apart from its limited sales of NZDT). It was just a custodian and provider of the trading and storage platform essentially.

[161] *Goldcorp* primarily is simply a Sale of Goods Act case and one that in any event turns on its own facts. The *Goldcorp* case does not stand for no trust being a possibility here. It is readily distinguishable from the situation with Cryptopia before me.

[162] Next, Ms Cooper for the creditors referred again to the *Quoine* decision in the Singapore Court of Appeal I mention above and she contended it was influential here and provided a number of close parallels with the present case. In *Quoine* the majority in the Court of Appeal upheld the High Court's decision allowing a breach of contract claim but overturned that Court's finding that there had been a breach of trust. Essentially, the majority determined that there was no trust due to a lack of certainty of intention to create a trust. Its reasoning on the trust issue was relatively brief but its main thrust was:

- (a) An intention to create a trust is not to be inferred "simply because a court thinks it is an appropriate means of protecting or creating an interest". [144];

- (b) The mere fact that assets are segregated by a trustee from other assets held by the trustee does not lead to the conclusion that there was a trust. [145];
- (c) There was in fact no segregation since the evidence was that the amount of currency recorded in the database did not necessarily match what the company held in its wallets. [146] – [147]; and
- (d) A term in the company’s Risk Disclosure Statement providing as it did that if the company went bankrupt it would not be able to return customer assets and customers may suffer losses, was not consistent with the normal position of a trustee who becomes insolvent. [148].

[163] Properly, Ms Cooper did acknowledge before me that the High Court and Court of Appeal decisions in *Quoine* were based on the particular facts of that case and its terms and conditions which did not refer to a “trust” in any way. This was quite unlike Cryptopia’s terms and conditions. But, she maintained that factors such as first, Quoine operating a system where it had a database showing coins allocated to individual customer accounts but holding those digital assets in unsegregated wallets and, secondly, the need for Quoine to procure coin if a customer wanted to purchase a cryptocurrency were similar to Cryptopia’s operations and provided close parallels. Accordingly, Ms Cooper, while acknowledging that *Quoine* is not binding on this Court, suggested that it provides some authority for a finding that no trust existed here over the cryptocurrency held in Cryptopia’s wallets and that these digital assets should form part of the company’s assets available for distribution to creditors.

[164] It is clear that the construction of contractual and trust arrangements between parties must always remain a matter for the decision-making court in question. I do take into account the decision in *Quoine* in this light, and note also that I will leave on one side suggestions from Mr Watts that the Court of Appeal’s judgment is open to criticism here in a number of respects.

[165] Looking to the facts prevailing in *Quoine*:

- (a) It appears that *Quoine* operated its platform in a different and much more active way than is in evidence here in relation to Cryptopia. *Quoine* was a major “market-maker”. It was actively placing buy and sell orders on the system. It was the principal market-maker estimated to be responsible for around 98 per cent of the market-making trades on its platform. In addition, *Quoine* lent funds, including cryptocurrency, to other market-makers and did not attempt to ensure there was actual cryptocurrency in its wallets to match the loans. As a result, buyers contracted to deliver to *B2C2* more than 3000 bitcoins on various automated arrangements when they had only 13.52 bitcoins in their account with *Quoine*.
- (b) In addition, *Quoine* was also engaged in futures trading which necessarily was trading not matched by actual currency.
- (c) Customers of *Quoine* were also involved in transactions like the one in question as market-makers and not investors. In marked contrast there was no provision in the present case in Cryptopia’s terms of trade that attempted to make customers subject to the risk of Cryptopia becoming insolvent and going into liquidation – quite the contrary.
- (d) As I amplify below, in contrast to *Quoine* there were a number of other factors here pointing to Cryptopia being a trustee for its customers’ cryptocurrency:
 - (i) The express trust provisions in the amended terms and conditions;
 - (ii) Other indicators of a trust both before and after August 2018 from the evidence;
 - (iii) Cryptopia’s internal financial accounts and GST returns demonstrated that it did not assert any ownership in the

cryptocurrency beyond its beneficial interest in its own personal cryptocurrency as an accountholder.

- (iv) The agency clause noted in cl 7.3 of the variation terms together with material in the customer service manuals and a legal opinion on these issues which is before the Court.

[166] Overall, I am satisfied here that *Quoine* is readily distinguishable from the facts in the case before me. The factual arrangements in *Quoine* are different, as I see it, from the position that prevailed in Cryptopia's business undertakings here.

Additional matters

[167] Cryptopia, it seems, operated for nearly five years. There is little evidence before the Court directed at how during this time Cryptopia managed to attract the many accountholders it did to its platform.

[168] Nevertheless, I confirm again that I am satisfied there is sufficient evidence before me to conclude that in the course of Cryptopia's operations a series of express trusts in favour of accountholders arose in respect of their respective digital assets. Key details of those trusts and of their changing subject matter and membership were held in the SQL database maintained throughout by Cryptopia.

[169] Cryptopia confirmed throughout and operated on the basis that its whole purpose in establishing the cryptocurrency exchange was to provide a platform to enable accountholders to store their currency from which they could trade in cryptocurrency amongst themselves should they so wish. Generally, Cryptopia was not in the business of selling cryptocurrency but was rather just an exchange that charged fees for a service. This applied other than for a short period in relation to the cryptocurrency NZDT which it seems Cryptopia engaged in from about May 2017 until about 9 February 2018. With the exception of NZDT through this period, it is clear accountholders as customers of Cryptopia brought their own cryptocurrency onto Cryptopia's exchange, as I note at [22] above from the evidence of Mr Brocket.

[170] In establishing what is frequently described throughout as an “exchange”, Cryptopia and all other parties with whom it was connected no doubt had in mind that Cryptopia would be operating as an “exchange broker” in a legal sense. It is interesting to note that in *Black’s Law Dictionary*, “exchange broker” is defined as “someone who negotiates money or merchandise transactions *for others*” (emphasis added).⁵⁶

[171] Issues of agency, as I see it, also arise here. Indeed in some of the documentation before me, Cryptopia is described as an “agent” for accountholders with regard to transactions entered into on their behalf.

[172] I am satisfied too from material which is before the Court, that Cryptopia’s web-based instruction pages and live customer interfaces clearly implied that accountholders would be depositing, buying, selling and owning their *own* cryptocurrency. Frequently, as I note at [27] above there is reference in the documentation to “*your* coin balances” (emphasis added). At [176] - [178] below there are also references to “*you*” and “*your*” relevant to matters of the ownership of the cryptoassets and their being traded (emphasis added). Although it is not altogether clear when these web-based instructions first went live, the evidence before me indicates they were certainly operating by April 2016. Those instructions might possibly have misled accountholders into thinking that they directly held the cryptocurrency in question rather than perhaps being only beneficial owners. But what is clear to me is that those instruction pages certainly do not suggest that accountholders were to have nothing more than a mere contract under which they would be unsecured creditors of Cryptopia with Cryptopia having the power to dispose of the cryptocurrency without an accountholder’s consent. If Cryptopia was indeed holding these digital assets, then it was cryptocurrency that it had acquired only by virtue of the trust which accountholders had placed in it as custodian for them.

[173] “Custodian” language has also featured with some prominence in this case. On this, *Black’s Law Dictionary* describes a “custodian of property” as:

⁵⁶ Bryan A Garner *Black’s Law Dictionary* (10th ed, Thomson Reuters, Eagan, 2014).

A custodian responsible for managing real or personal property. The custodian's duties generally include securing, safeguarding and maintaining the property in the condition received and accounting for any changes in it.

[174] The Cryptopia Risk Statement also speaks of customers “owning” their own cryptocurrency. In addition, it warns customers of the many risks of their owning cryptocurrency and of using Cryptopia's platform. But it did not in any way suggest that one of the risks to be run by account holders was that Cryptopia would itself *own* the cryptocurrency legally and beneficially, let alone that this would be the position if Cryptopia were, as has happened, to go into liquidation.

[175] Additionally, by the Risk Statement:

- (a) Clause 28 informed accountholders that Cryptopia may hold its own digital currencies on the platform, which indeed happened. There was no suggestion made that in fact Cryptopia beneficially owned *all* the digital currency on the platform.
- (b) Clause 29 addressed fees payable for using the platform. This did not suggest that any capital gains in the cryptocurrencies would enure to Cryptopia, which would have been the normal position had Cryptopia been the legal and beneficial owner of them.

[176] I turn now to Cryptopia's “marketing strategy” of July 2018, details of which are before me. This was a strategy promoted by Cryptopia, which stated that Cryptopia was providing: “A trading platform for global cryptocurrency investors who want to trade safely”, and that the company was “dedicated to ensuring *you* can deposit, trade and withdraw your cryptocurrency coins securely whilst offering world class service” (emphasis added).

[177] Significantly here, customers were also referred to as “users” and not as “buyers”. The strategy referred also to Cryptopia's “high level security” stating: “Rest easy: knowing *your* cryptoasset investments are securely protected” (emphasis added).

[178] The accompanying fact sheet also contained the following statement: “Our mission is to enable the widespread adoption of digital currencies to give people control back of *their* money through faster, cheaper, and more efficient financial services” (emphasis added).

[179] I turn now to say something more about the amended terms and conditions updated from 7 August 2018. Those terms, and in particular cls 5(d) and 5(e), and cls6(e)– (g) and (k) in respect of “fiat pegged tokens”, contain express recognition that the cryptocurrencies held by Cryptopia for accountholders are held on trust for those accountholders. It is those accountholders it seems who retain the beneficial ownership throughout. Ms Cooper for the creditors has endeavoured to make something of the specific wording of cl 5(e) which, to repeat, states:

- (e) Each user’s entry in the general ledger of ownership of coins is held by us, on trust, for that user.

Ms Cooper contends that on its face this provision states that it is the “entry” in the ledger of ownership which is held “on trust” rather than the cryptocurrency itself. As I see it, this interpretation is wrong. It would lead to a nonsensical situation. Although that wording in cl 5(e) is not ideal, I am satisfied there can be no doubt that what was intended by the provision was that it is the cryptocurrency or coins themselves which are held by Cryptopia “on trust for” the particular accountholder.

[180] Before me, Mr Barker for the liquidators pointed out that the evidence before the Court shows that approximately 536,662 accountholders did not engage with Cryptopia’s exchange after the updated terms and conditions of 7 August 2018 were advised. Mr Barker went on to suggest that these amended terms, if anything, simply resulted in a variation of trust for the accountholders or, alternatively, created a new trust that operated only in favour of those accountholders who engaged with the exchange after the amended terms came into effect. On this, Mr Barker noted that any finding that some users or accountholders are beneficiaries of trusts and some are not could also pose potential prejudice to non-trust accountholders for the future. He was quick to point out that these issues were raised simply so that the consequences of any particular outcome could be clearly understood by the Court.

[181] On these aspects, I disagree with Mr Barker's interpretation here. I have confirmed above that I am satisfied no variation of trust was involved in the amended terms. Those terms merely confirmed what were the existing trusts in operation. As I have noted, Mr Brocket, the only employee of Cryptopia to give evidence before me, this evidence also being uncontested, said the amended terms did not change the way the company had always operated. It was clear too, which Mr Barker for the liquidator accepted, that even if the amended terms improved the position of existing accountholders then the amendment must be seen as unobjectionable from their perspective.

[182] As I see it, the amended terms on their face took immediate effect for all existing accountholders and it was therefore not necessary for an accountholder actively to use the Cryptopia platform post-August 2018 in order to get the benefit of those terms.

[183] It must follow, therefore, that at no point in time were there separate sets of trust assets on the one hand, for accountholders under the historic terms and, on the other, for accountholders who had accepted the amended terms. Again, Mr Brocket in his evidence I have noted above confirmed as much. Nor, in my view, was it necessary to reach a position where individual trusts were seen as arising for each individual accountholder. I am satisfied that all accountholders by currency held their interests on exactly the same terms as other accountholders of that particular currency. That said, on all the evidence before me I conclude that Cryptopia acted as a bare trustee under a separate trust for each individual cryptocurrency held on its platform. All the accountholders for that one particular currency were simply beneficiaries under that one trust.

[184] Ms Cooper for the creditors has endeavoured (unsuccessfully) to question this conclusion. I find that Cryptopia's principal duty under each of these respective trusts was to hold the relevant pool of currency, in many cases which the accountholders had brought onto the platform, on behalf of those accountholders (which might include Cryptopia itself as a beneficiary accountholder if it had personally acquired certain of those pool assets). As part of this Cryptopia as trustee was required to deal with each accountholder member's share in the pool as directed by the member.

[185] In this respect, the powers and immunities given to Cryptopia in the terms and conditions which I have outlined at para [27] above, as I see it, are all proper provisions in trusts of this type.

[186] And I confirm my conclusion finally that the amended terms and conditions of 7 August 2018 did not effect any particular variation of the trusts. Those amended terms applied automatically to all accountholders in the respective cryptocurrencies from 7 August 2018. And, indeed the standard trust arrangements for each cryptocurrency had related back to the original inception of Cryptopia.

[187] In answer to the question raised at [46](b) I conclude that the various cryptocurrencies were at equity held on separate express trusts by Cryptopia for all of the accountholders.

B. The remaining issues before the Court

[188] I now need to turn to the remaining questions posed at para [46]:

Question (c) – What happens if there is no trust or cryptocurrencies are not “property”?

[189] Question (c) of this paragraph, as it reads in the application, states:

If the answer to Question (a) is No, then to the extent that such digital assets are not “property” whether the applicant liquidators should satisfy claims of:

- (i) Any accountholder of the company (accountholder) for the return of his/her/its digital assets; and
- (ii) Unsecured creditors,

By conversion of such digital assets into fiat currency and paying such in accordance with Part 16 of the Companies Act 1993.

[190] Given the answers I have given to questions (a) and (b) to the effect that the various digital assets held by the liquidators *do* constitute “property” as defined in s 2 of the Companies Act, and those digital assets here *are* held on trust for the accountholders, this question (c) does not arise.

[191] But in any event, I note that even if I had found the digital assets were not “property” within s 2 of the Companies Act and were not held on trust for the accountholders, then those digital assets would be an “asset” of the company as that word is used in ss 253 and 313 of the Companies Act. In those circumstances the assets should be realised by the liquidators and the proceeds distributed in the ordinary way under pt16 of the Companies Act. In that event, accountholders’ claims would rank with ordinary unsecured creditors of Cryptopia. Given my findings noted above, however, that is not the case here.

Question (d) – What are the terms of the trust/s and when did the trust/s come into existence?

[192] For the reasons I have outlined above, I am satisfied that an express trust came into existence for every different type of currency here which Cryptopia acquired as a result of a dealing with an accountholder. The precise dates on which this may have occurred were not in evidence before me.

[193] Nevertheless, once such a trust came into existence it applied to any currency of the relevant type subsequently acquired by Cryptopia as part of the running of its cryptocurrency platform whether or not the currency was in hot wallets or cold wallets.

[194] In most cases the trusts in question will have pre-dated the varied terms in August 2018. But in any event as I see it, trusts arose in respect of each parcel of digital assets when they were acquired and the amended terms made no difference. Any new kinds of cryptocurrency acquired after the amended terms came into existence in August 2018, as I see it, from the time of acquisition will have become subject to trusts on the same basis.

[195] As to what were the terms of the trust or trusts, in my view, it is not necessary or practicable at this point comprehensively to list all the terms that might govern the trusts in question. As Briggs J’s judgment in *Pearson v Lehman Brothers Finance SA* stated:⁵⁷

...the law commonly recognises the creation of a trust as a necessary consequence of an intention that parties should share property beneficially in

⁵⁷ *Pearson*, above n 53, at [245].

circumstances where the parties themselves have given no thought at all to the terms of the consequential trust, if indeed they even recognised its existence. In all such cases the law fills the consequential gaps by implication, and by importation of generally applicable principles.

[196] As I see it here, Cryptopia essentially fulfilled the role of a bare trustee in relation to the accountholders. Cryptopia's trust duties therefore were somewhat confined. Its principal role was to hold each group of digital assets as trustee for the accountholders, to follow their instructions, and to let individual accountholders then increase or reduce their beneficial interest in the relevant trusts in accordance with the system Cryptopia had created for that purpose.

Question (d)(iii) – Separate trust for each accountholder – or one trust for all accountholders – or multiple trusts for specific groups?

[197] As I have outlined above, I have found that Cryptopia here is a trustee of separate trusts, one for each cryptocurrency with the beneficiaries being all accountholders holding currency of the relevant type.

[198] It follows that I reject alternatives 1 and 2 in Question (d)(iii) and uphold alternative 3 noted above at [46].

Question (e) – Inability to identify individual accountholders?

[199] Question (e) outlined at para [46] above states:

What is the consequence of the applicant liquidators being unable to ascertain the identity of any accountholder, and what consequences flow in relation to any digital assets associated with that account, specifically:

- (i) Can the applicant liquidators close any such accounts and retain any digital assets as assets of the company; or
- (ii) Do any such digital assets fall to be dealt with pursuant to the Trustee Act 1956 or otherwise?

[200] In my view, the appropriate course of action here where the liquidators find themselves unable to identify particular accountholders is the second alternative, namely for the digital assets that would otherwise fall to be allocated to that accountholder to be dealt with in accordance with s 76 of the Trustee Act 1956.

[201] Section 76 of the Trustee Act provides:

76 Distribution of shares of missing beneficiaries

- (1) Where any property is held by a trustee and the property or any part thereof cannot be distributed because the trustee does not know whether any person who is or may be entitled thereto is or at any material date was in existence, or whether all or any of the persons who are members of any class who are or may be entitled thereto are or at any material date were in existence, or because the trustee does not know whether any such person is alive or dead or where he is, the trustee may publish such advertisements (whether in New Zealand or elsewhere) as are appropriate in the circumstances calling upon every such person and every person claiming through any such person to send in his claim within a time to be specified in the advertisements, not being less than 2 months in any case from the date on which the advertisement is published. Where the trustee is in doubt as to what advertisements should be published under this subsection, he may apply to the court for directions in that regard.
- (2) Where the trustee has received (whether as a result of the advertisements or not) any claim to be a person to whom any such advertisement relates, or any notice that any person may claim to be such a person, but the trustee is not satisfied that the claim is or would be valid, the trustee may serve upon the claimant or the person of whom the trustee has notice as aforesaid, a notice calling upon him, within a period of 3 months from the date of service of the notice, to take legal proceedings to enforce the claim, if he wishes to pursue it, and to prosecute the proceedings with all due diligence; and advising him that, if he fails to do so, his claim may be disregarded and application may be made to the court without further notice for an order authorising the distribution of the property. Nothing in this subsection shall make it necessary for the trustee to serve such a notice on any such person; and the court may make an order under this section, whether or not such a notice has been served on any such person, if it is satisfied that the information supplied to the trustee by that person or otherwise in the possession of the trustee indicates either that the person is not one of the persons specified in the advertisements or that he is not likely to be one of those persons.
- (3) Upon proof by affidavit of the circumstances, and of the inquiries that have been made, and of the results of inquiries and advertisements, and of the claims of which the trustee has received notice, and of the notices that the trustee has given to claimants under subsection (2), and of the action (if any) which the claimants have taken to enforce their claims, the court may order that the trustee may distribute the property or part thereof, subject to such conditions as the court may impose,—
 - (a) as if every person and every member of any class of persons specified in the order (being all or any of the persons specified in the advertisements) is not in existence or never existed or has died before a date or event specified in the order; and

- (b) where as a consequence of the order it is not possible or practicable to determine whether or not any condition or requirement affecting a beneficial interest in the property or any part thereof has been complied with or fulfilled, as if that condition or requirement had or had not been complied with or fulfilled (as the court may determine).
- (4) In making any order under subsection (3), the court may—
 - (a) disregard (without express reference thereto in the order) the claims of any persons who do not appear to the court to be, or to be likely to be, any of the persons specified in the advertisements:
 - (b) disregard (without express reference thereto in the order) the claim of any person to whom the trustee has given notice under subsection (2) and who has failed to take legal proceedings to enforce the claim or to prosecute any such proceedings with all due diligence:
 - (c) exclude from the operation of the order any person to whom the trustee has not given notice under subsection (2) and who in the opinion of the court may be one of the persons specified in the advertisements, or any person whom the court considers should for any reason be excluded from the operation of the order:
 - (d) provide that the order shall not be acted on for such period or except on such conditions as may be specified in the order or that the effect of the order shall during a period so specified be advertised in such manner and form as may be specified in the order, or that the order be served upon such person or persons as are specified therein; and in the event of the court exercising the jurisdiction conferred by this paragraph it may in the order direct that the same shall be of no effect in respect of any person specified therein in the event of that person instituting proceedings in New Zealand to enforce his claim and serving the proceedings upon the trustee within such period as is specified in the order.
- (5) Any such order may be made notwithstanding that there has not been strict compliance with any directions as to advertisements previously given by the court, or that an error has been made in any advertisement (whether or not any directions have previously been given by the court) if the court considers that the error would not be likely to have prejudiced or misled the persons to whom the advertisement relates.
- (6) Where the court makes an order under this section that the trustee may distribute any property or part thereof as if every person and every member of any class of persons specified in the order (not being a person expressly excluded from the operation of the order) is not in existence or never existed or has died before a date or event specified in the order, and the trustee distributes in accordance with the order, the trustee shall be exonerated from any further liability to any such person or to any member of any such class:

provided that nothing in this subsection shall prejudice any remedy which any person may have against any person other than the trustee, including any right which he may have to follow the property and any money or property into which it is converted.

- (7) The court may make 1 or more orders under this section in respect of the same property.
- (8) Any order made under this section may direct how the costs of the order and of advertising under or for the purposes of the order shall be borne.
- (9) It shall not be necessary to serve notice of an application for an order under this section upon any person, unless the court otherwise orders.
- (10) Nothing in this section shall prejudice the right of the trustee (if he so desires) to distribute under any other law or statutory provision or prejudice the protection thereby afforded when he makes distribution pursuant to any such law or provision.

[202] This s 76 process needs to be undertaken here where appropriate. It must follow, therefore, that alternative 1 (suggesting that the digital assets be retained as assets of Cryptopia) is not appropriate here.

Question (f) – Recovery of stolen digital assets

[203] Question (f) outlined at [46] states:

If and to the extent that the applicant liquidators recover stolen digital assets, then are such to be dealt with by the applicant liquidators:

- (i) in accordance with the determination sought above;
- (ii) pro rata according to the amounts recovered assessed against amounts stolen; or
- (iii) as assets of the company.

[204] Here, I have accepted submissions advanced to me for the accountholders that there are separate trusts for each type of cryptocurrency held by Cryptopia. There is one such trust for each type of cryptocurrency held. As such, it necessarily follows that only those accountholders who hold types of cryptocurrency that were stolen would have suffered a loss as a result of that misappropriation. Those losses, as I see it, should be borne *pari passu* by those accountholders alone.⁵⁸ It must follow

⁵⁸ *Pearson*, above n 53 at [244].

therefore, in my view, that any recoveries of misappropriated cryptocurrency should enure to the benefit of those same accountholders.

[205] To determine the position as between the accountholders who are beneficiaries of the relevant trusts relating to the particular misappropriated cryptocurrency is somewhat more difficult, however. The appropriate process as I see it is:

- (a) as at the date of the theft, the liquidators should determine the accountholders affected and their relative shares in any trust of the digital assets which are the subject of the theft. The liquidators should then apply the loss from the theft pro rata to those existing holdings. It should not therefore be necessary for the liquidators otherwise to discriminate amongst those accountholders, although the default position might be seen as *pari passu* distribution of the loss;
- (b) to the extent that subsequent to the theft any accountholder acquired digital assets of the type that suffered the theft and those assets were added to the relevant trust assets, no reduction for the theft should be applied to that accountholder's share in the trust assets; and
- (c) any recoveries of cryptocurrency lost as a result of the theft should be applied pro rata to make up the loss suffered by such accountholders as were affected by it under the principles I have outlined above.

Potential relevance of any fault of Cryptopia relating to the lost digital assets

[206] I have not been asked in the current application to address the relevance of any questions which might arise relating to the potential that Cryptopia may be legally culpable for lost digital assets here. This issue potentially arises if the digital assets were held on trust as I have found and Cryptopia is now holding fewer digital assets than were transferred to it by accountholders and not withdrawn by them. The losses may have occurred from the hack and theft, but there may be other causes of this shortfall.

[207] It may be useful, however, to provide some brief comments on this aspect. In principle, where a trustee is one of the beneficiaries of the trust (as Cryptopia says is the case here) and there is a shortfall in the trust assets, the trustee cannot share in any distribution of assets among beneficiaries where the trustee is found to be legally culpable in respect of that shortfall to the extent of the shortfall.⁵⁹

[208] These comments are, however, by way of an aside as the issue of trustee-fault is not strictly before the Court here. This may be a matter for further consideration later.

Result

[209] As to the questions posed by the liquidators in their application as outlined at [46] above, the answers to those questions are:

- (a) On the question whether any or all of the digital assets held by the liquidators constitute “property” as defined in s 2 of the Companies Act, the answer is **yes**, *all* of the digital assets constitute “property”.
- (b) On the question whether any or all of these digital assets are held on trust for accountholders, the answer is **yes**, they are *all* held by way of express trusts.
- (c) Question (c) raised issues only if the answer to question (a) or question (b) was, **no**. That is not the case here, given that those questions were both answered **yes**. Nothing further is required, therefore, with respect to this question (c).
- (d) Given that the answer to question (b) above is **yes**, then the following questions arise under Question (d), and their answers are:
 - (i) Question (i): When did the trusts come into existence? The answer is that, in each case when the first tranche of a specific

⁵⁹ *Finnigan v Yuan Fu Markets Ltd (in liq)* [2013] NZHC 2899 at [46]; and *Russell-Cooke Trust v Prentis* [2003] EWHC 1206 (Ch) at [6].

cryptocurrency was accepted onto Cryptopia's platform, one trust was established for that particular cryptocurrency and came into existence (and this was the case either before or after 7 August 2018 when the company updated its terms and conditions).

- (ii) Question (ii): What are the terms of the trusts? The answer is that these are those terms which are implied into a particular trust by law.
 - (iii) Question (iii): On what basis are the digital assets held on trust? The answer is as set out at as offered at subpara (iii) of this question. This means that the digital assets are held in multiple trusts for the benefit in each case of specific groups of accountholders who hold that particular group or type of digital asset with the result that accountholders within a specific group are co-beneficiaries of the same trust.
- (e) On this question (e) which relates to the consequence of the liquidators being unable to ascertain the identity of any particular accountholder and what consequences should follow in relation to digital assets associated with that account, The answer is that these digital assets fall to be dealt with pursuant to s 76 of the Trustee Act. The requirements set out in that provision are to apply here.
- (f) Question (f) asks if, and to the extent that the applicant liquidators recover stolen digital assets, how are these to be dealt with by the liquidators? The answer is as outlined at para (f)(ii) to the effect that they are to be dealt with pro rata within each specific trust for the digital asset concerned according to the amounts recovered assessed against the amounts stolen.

Costs

[210] Outlined at para (g) of the liquidators' application specified at para [46] above, is a request, effectively from all parties, for a direction that their reasonable fees and disbursements on this application should be met in the first instance from the pool of realised bitcoin holdings pursuant to [3(b)] of the order of this Court dated 29 May 2019.

[211] This is on the basis that these fees and disbursements are a necessary and reasonable expense of the liquidation of, and incidental to the protection, preservation, recovery, management and administration of, the assets of Cryptopia.

[212] On this costs question, I am satisfied that the costs of counsel for the liquidators, counsel for the accountholders and counsel for the creditors should be met from the bitcoin holdings pool as sought on the basis outlined. All counsel at this point provided detailed and helpful submissions for the resolution of these issues and their costs are properly met from this pool.

[213] A direction is now made that the reasonable fees calculated on an indemnity basis and disbursements of counsel for the liquidators, counsel for the accountholders and counsel for the creditors are to be met from the pool of realised bitcoin holdings pursuant to para [3(b)] of this Court's order dated 29 May 2019.

[214] Insofar as it may be necessary here I certify for second counsel in each case.

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Gendall J

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