IN THE HIGH COURT OF NEW ZEALAND
CHRISTCHURCH REGISTRY

I TE KŌTI MATUA O AOTEAROA
ŌTAUTAHI ROHE

CIV 2019-409-544

Under	Part 19 of the High Court Rules and Part 16 of the Companies Act 1993
In the matter of	an application concerning **CRYPTOPIA LIMITED (IN LIQUIDATION)**
And	
In the matter of	an application by **DAVID IAN RUSCOE** and **MALCOLM RUSSELL MOORE** of **GRANT THORNTON NEW ZEALAND LIMITED**
	Applicants

SUBMISSIONS FOR LIQUIDATORS ON APPLICATION FOR DIRECTIONS
Dated: 23 January 2020

Judicial Officer: Gendall J

Next event date: 11 February 2020

BUDDLE FINDLAY
NEW ZEALAND LAWYERS
Barristers and Solicitors
Wellington

Solicitor Acting: **Scott Barker/ Annie Cao/ Maddie Harris**
Email: scott.barker@buddlefindlay.com; annie.cao@buddlefindlay.com; maddie.harris@buddlefindlay.com
Tel 64 4 499 4242 Fax 64 4 499 4141 PO Box 2694 DX SP20201 Wellington 6140

MAY IT PLEASE THE COURT:

INTRODUCTION AND ISSUES:

1. This is an application by the liquidators of Cryptopia Limited (**in liquidation**) ("**Cryptopia**" or the "**Company**") for directions on the legal status of a number of cryptocurrencies held by Cryptopia ("**Digital Assets**") ("**Application**"), and whether the Digital Assets are held on trust by the Company.

2. The liquidators require the Court's direction on the issues set out in the Application in order to ensure that they comply with legal obligations incumbent on them in proposing a method or methods of distribution of the assets controlled or owned by the Company. Once the Application is determined the liquidators intend to propose a method, or methods, of distribution of the Company's assets and make a further application to the Court. This Application is therefore part 1 of a 2 part process before distribution can be achieved.

3. The applicant liquidators have no interest in which outcome is reached by the Court on the issues listed in the Application. The liquidators do have an interest in ensuring that the Court receives full argument on the issues for determination.

4. Experienced senior counsel have been appointed to represent the classes of affected interests in the Application, being the "Creditors" and "Potential Trust Beneficiaries".[1] We, as counsel for the liquidators, have the role of addressing any argument that is not in contest between appointed counsel, to assist the Court.[2]

5. These submissions provide:

   (a) A detailed factual background to assist the Court.

   (b) Summary of the legal principles applicable to the Court's determination of the Application.

   (c) A counter argument on the issues not in contest between appointed counsel for the benefit of the Court.

[1] Sealed Orders dated 18 October 2019.
[2] Sealed Orders dated 18 October 2019.

6. The issues that are not in contest between appointed counsel are as follows:

   (a) Certain arguments to be considered in determining issue 1(a) of the Application: "*[w]hether any or all of the Digital Assets held by the liquidators of Cryptopia are "property" within the definition of s 2 of the Companies Act 1993*". Both counsel for the Creditors and Potential Trust Beneficiaries accept that cryptocurrency is at least property within the meaning of s 2. In dispute between appointed counsel is whether cryptocurrency is property capable of forming the subject matter of a trust.

   (b) Certain arguments to be considered in determining whether individual or grouped trust(s) arise over the Digital Assets (issue (1)(d)(iii) of the Application).

7. The evidence available to the Court includes the following nine affidavits:

   (a) Affidavit of David Ian Ruscoe sworn 1 October 2019 with annexure bundle DIR1 (**First Ruscoe Affidavit**), which expressly incorporates the following affidavits filed by the liquidators in related proceedings filed in the course of this liquidation:

      (i) The affidavit of David Ian Ruscoe sworn on 17 May 2019 in CIV 2019-409-286 which includes as an annexure the declaration that Mr Ruscoe made in support of Chapter 15 bankruptcy recognition proceedings in the United States (**17 May Ruscoe Affidavit**);

      (ii) The affidavit of David Ian Ruscoe sworn on 22 May 2019 in CIV 2019-409-247 (**22 May Ruscoe Affidavit**);

      (iii) The affidavit of David Ian Ruscoe sworn on 28 May 2019 in CIV 2019-409-286 (**28 May Ruscoe Affidavit**).

   (b) Second Affidavit of David Ian Ruscoe sworn 8 November 2019 with annexure DIR2 (the excel spreadsheets provided to the Court on USB flash drive) and annexure bundle DIR3 (**Second Ruscoe Affidavit**);

   (c) Affidavit of Christopher Kirk Watson with annexure bundle CKW1 sworn 8 November 2019 (**Second Watson Affidavit**) which expressly refers to the earlier affidavit that Mr Watson swore in related proceedings on 28 May 2018 (**First Watson Affidavit**);

(d) Affidavit of Timothy James Strahan Brocket with annexure bundle TJSB1 sworn 27 November 2019 (**Brocket Affidavit**); and

(e) Third Affidavit of David Ian Ruscoe with annexure bundle DIR4 sworn 13 January 2020 (**Third Ruscoe Affidavit**).

FACTUAL BACKGROUND

Cryptopia's formation, hack and liquidation

8. Cryptopia is a cryptocurrency exchange. It is essentially a platform that allowed users to trade pairs of cryptocurrencies between themselves, with Cryptopia charging a fee for trades, deposits and withdrawals.

9. Cryptopia was hacked in January 2019, and cryptocurrency estimated to be valued at more than NZD30 million was stolen. Cryptopia was placed into liquidation, and the applicant liquidators were appointed by shareholders on 14 May 2019, after a short period of limited trading post-hack.[3]

10. Cryptopia was incorporated on 29 July 2014.[4] It was started by Rob Dawson and Adam Clark as a hobby.[5]

11. Between November 2017 and January 2018 the value of Bitcoin increased from approximately USD4,350 to almost USD20,000.[6] The number of registered account holders at Cryptopia grew by over 940% over the same period, and the Company revenue and staff numbers grew significantly.

Brief overview of cryptocurrency, digital wallets, and cryptocurrency exchanges

12. Cryptocurrencies are digital tokens that are able to be traded on the internet. Some cryptocurrencies are able to be exchanged for fiat currency or for goods or services.

13. Outside of an exchange, cryptocurrency trading occurs between two private digital wallets. The process is governed by a consensus mechanism, which is how the blockchain verifies transactions, and how the ledger of ownership is maintained. Broadly speaking, the consensus mechanism involves a series of computers solving complex mathematical problems to verify the transactions that have been submitted by the computers of people who want

[3] Affidavit of David Ian Ruscoe sworn 17 May 2019 at [5].
[4] Second Ruscoe Affidavit at [4].
[5] Third Ruscoe Affidavit at [8].
[6] Second Ruscoe Affidavit at [5].

to make a trade between digital wallets. The technical process can vary, but the basic principles are the same. Transactions are confirmed in "blocks", to confirm the next "block" the cryptographers use data from the previously confirmed block, creating a blockchain.

14. Digital wallets are characterised by a public key and a private key. The public key is essentially the address of the digital wallet. The private key is essentially a password, allowing a user to make transactions from the digital wallet. If a user forgets or loses the private key, they cannot move the cryptocurrency from the digital wallet.

15. Each type of cryptocurrency has its own system, save for some cryptocurrencies that are variations of the same type of cryptocurrency and exist on the same system (for example there are variations of Ethereum called "*ERC20 tokens*" that are hosted by the same blockchain as Ethereum).[7] A separate digital wallet is required for each separate cryptocurrency system.

16. Each type of cryptocurrency is created by a separate code and has its own protocol. The "*protocol*" is the set of rules that determine how the system operates.[8] The protocol specifies the transaction confirmation process, which informs how the ledger can be updated.[9]

17. Cryptocurrency transactions are recorded on the "*ledger*" for the particular cryptocurrency. The ledger records transactions between public keys. The protocol sets out how transactions are confirmed, which ultimately informs how the ledger is updated. The process for confirming transactions and updating the ledger is carried out by an anonymous network of computers, that carry out complex cryptographical puzzles to verify transactions.[10] This is referred to as the "*network*". The network implements the rules of the protocol to verify transactions. A separate network is required for each cryptocurrency platform.[11] Transactions are processed one block at a time, resulting in a chain of blocks (the blockchain).

18. This confirmation process is intended to allow trading between parties in an environment where there is no trust. The pioneering cryptocurrency system,

---

[7] Rauchs et al *Distributed Ledger Technology Systems: A Conceptual Framework* (Cambridge Centre for Alternative Finance, University of Cambridge Judge Business School, Research Paper, August 2018) ("**CCAF Framework**") at page 50. The CCAF Framework is annexure CKW1 of the affidavit of Christopher Kirk Watson sworn 8 November 2019.
[8] CCAF Framework at pages 33-34.
[9] CCAF Framework at 34.
[10] CCAF Framework at pages 42 and 54.
[11] CCAF Framework at pages 42 and 54.

and certainly the most well-known, is Bitcoin.[12] The founder of Bitcoin, Satoshi Nakamoto, intended to create a digital payment system that did not rely on a centralised financial institution. Satoshi Nakamoto's famous Bitcoin White Paper described it as an "*electronic payment system based off cryptographic proof instead of trust*, *allowing two willing parties to transact directly with each other without the need for a trusted third party*".[13]

Detailed explanation of the transaction confirmation process

19. The conceptual framework published by the Cambridge Centre for Alternative Finance, located at the University of Cambridge Judge Business School (**CCAF Framework**) contains a useful breakdown of the process that occurs for transactions to be confirmed on the ledger.[14] The key actors are the individual traders and the computers on the network that carry out the confirmation process.

20. The CCAF Framework describes the confirmation process as follows:

    (a) **Unconfirmed transactions:** "*End users create transactions and broadcast them to the network through various means. These transactions are waiting for confirmation*". These transactions are proposed changes to the ledger.

    (b) **Log (mempool):** "*Each fully-validating node stores unconfirmed transactions in its log ("mempool"). Logs may differ from one node to* another". A node is a single computer on the network that carries out the transaction confirmation process, which ultimately updates the ledger.

    (c) **Record:** "*Each record producer now arbitrarily selects a set of unconfirmed transactions from its log and creates a candidate record. After performing the necessary steps specified by the protocol to make the candidate record valid it broadcasts the record to the connected nodes*". A "*record producer*" also refers to a single computer on the network that carries out the transaction confirmation process, which ultimately updates the ledger. A record is a set of unconfirmed transactions, arbitrarily selected. This can also be referred to as a

[12] Chris Brummer (ed) *Cryptoassets: Legal, Regulatory, and Monetary Perspectives* (Oxford University Press, United States of America, 2019) at page 32 ("**Brummer**").
[13] Satoshi Nakamoto, White Paper "*Bitcoin: A Peer-to-Peer Electronic Cash System*" at 1; Submissions for the Potential Trust Beneficiaries at [124].
[14] CCAF Framework at pages 25 to 26.

"block" of transactions, which explains the basis of the term "blockchain".

(d) **Journal stage:** *"Each node will verify the received candidate record: if it complies with protocol rules, the node will add the record to its own instance of the ledger – the journal. Journal states may differ from one node to another.*" A journal is an unconfirmed version of the ledger.

(e) **Ledger:** "*The ledger represents the globally agreed upon authoritative set of records that constitutes the state of the system. It results from the convergence of synchronised individual journals*". Once transactions appear on the ledger they are "*confirmed transactions*".

21. Transaction finality is not necessarily achieved once a transaction is confirmed on the blockchain. The CCAF Framework explains that confirmed transactions may be reversed through any of the following ways:[15]

(a) **Orphaned blocks**: Confirmed records can be "*orphaned*": unconfirmed transactions are reversed and returned to the log of unconfirmed transactions waiting to be processed.[16] This occurs when the network subsequently approves a set of records that does not include a previously confirmed block, rejecting the block and changing the status of the transactions to unconfirmed. This phenomenon explains why, when receiving deposits, Cryptopia required a certain number of confirmations on the blockchain before crediting an account holder's account.

(b) **51% attacks:** These can occur in any system whose consensus mechanism can be controlled by a majority of the network. A 51% attack occurs when a "dishonest" party has control of over 51% of the nodes on the confirmation network. The dishonest party can then manipulate the network to reverse previously confirmed transactions and prefer dishonest transactions. The learned authors of *Cryptoassets: Legal, Regulatory, and Monetary Perspectives* describe 51% attacks as follows: [17]

> In proof-of-work systems such as Bitcoin and (currently) Ethereum, whoever controls more than 50% of the hashing power of the network effectively controls the validation process, and is able to block

[15] CCAF Framework at pages 64 to 65.
[16] CCAF Framework at page 65.
[17] Brummer, above n 12 at page 57.

> transactions from being entered onto the blockchain or even alter old entries on the blockchain (sometimes referred to as a block "reorg").

(c) **Protocol changes:** changes to the protocol rules can alter the form of the ledger. This is discussed in detail in the next section.

22. The learned authors of *Cryptoassets: Legal, Regulatory, and Monetary Perspectives* discuss how protocol changes and 51% attacks have occurred on the following occasions:[18]

(a) **Bitcoin's March 2013 Hard Fork (protocol change):** In March 2013 Bitcoin experienced an unexpected fork of the network because certain miners were running different versions of software due to uneven upgrading to a new software release. This caused the blockchain to split into two versions, one using the old software and one using the new software. The learned authors of *Cryptoassets: Legal, Regulatory, and Monetary Perspectives* state:[19]

> …key developers determined which version of the forked ledger should be treated as the "real" Bitcoin and reached out to miners in the network to urge them to support the chosen ledger. To do so, some miners had to adopt the earlier software version, and lost earnings that they had made on the rejected ledger. Once enough miners switched over, the network returned to a single ledger. … [t]hese developers selected the authoritative ledger, creating winners and losers among the miners, depending on which version of the ledger they had been mining during the fork.

(b) **January 2019 Ethereum Classic (51% attack)**: the 51% attack on Ethereum Classic is recorded to have resulted in "*a rewriting of its blockchain that enabled the attacker to steal over $1 million [USD]*" worth of the cryptocurrency.[20]

23. This demonstrates that third party actions can affect previously confirmed cryptocurrency transactions. We note that:

(a) The way in which a protocol can be changed depends on the protocol of each given cryptocurrency and may differ from cryptocurrency to cryptocurrency.

(b) 51% attacks are only a risk for cryptocurrencies that operate on a majority rules consensus mechanism.

[18] At page 51 to 58.
[19] At page 55.
[20] At page 57.

Changes to the protocol

24. The protocol is a piece of software that sets out the rules of a given cryptocurrency system. The CCAF Framework describes it as "*just a piece of software which by itself is inert. The protocol is 'brought to life' when it is implemented by the network.*"

25. The protocol is established when the coin is created, and it can be amended.[21] The process for amending the protocol varies from cryptocurrency to cryptocurrency. Amendments to the protocol can result in confirmed transactions being reversed. To this extent, the ability to amend the protocol is likely to be relevant to the Court's determination of whether cryptocurrency is property because it demonstrates difficulties with an individual's ability to exercise control and possession over a cryptocurrency, and is relevant to the Court's assessment of whether cryptocurrency has a sufficient degree of "*permanency*". [22]

26. The protocol will specify how it can be amended. The various methods of amendment that exist are discussed in the CCAF Framework at Table 4: Protocol Governance Configurations.[23] Briefly, they are:

    (a) **Anarchic:** controlled on a cooperative and voluntary basis, by the network.

    (b) **Dictatorship:** decisions are made by a designated entity (this could be the mining pool).

    (c) **Hierarchical:** recognised leadership, and changes will require the consent of leaders (i.e. a committee).

    (d) **Federation:** a group of agents vote.

    (e) **Plutocratic:** changes are voted on, with each vote weighted by the importance of each proposer or voter. A minority of voters have substantial weight.

    (f) **Democratic:** changes are voted on, with each vote weighted by the importance of each voter, however a minority of voters do not have substantial weight in vote outcomes.

[21] CCAF Framework at page 34.
[22] *National Provincial Bank v Ainsworth* [1965] 1 AC 1175 (HL) at 1247-8.
[23] CCAF Framework at page 55.

On chain and off chain transactions and the ability to reverse

27. An exchange is a platform that enables users to trade cryptocurrencies with other account holders on the exchange. Transactions made on an exchange are typically made off the blockchain, so the transactions do not require verification from the network.

28. This difference has been referred to as "*on chain*" and "*off chain*" transactions:

    (a) **On chain transactions**: an on chain transaction is a transaction that occurs on the blockchain for a particular cryptocurrency. The blockchain is the publicly available digital ledger that records all transactions of a cryptocurrency between private digital wallets. These are the transactions that are verified via the blockchain's consensus mechanism (data mining is one example of a consensus mechanism).

    (b) **Off chain transactions:** an off chain transaction is a transaction that occurs off the blockchain. These transactions are recorded on the exchange's internal database. The transactions that occurred on Cryptopia's exchange were off chain transactions. At all material times the cryptocurrency that was traded between account holders remained in Cryptopia's digital wallet. The digital ledger produced by each cryptocurrency's individual blockchain would have, at all times, recorded that the cryptocurrency in question was sitting in Cryptopia's digital wallet.

29. Deposits and withdrawals were on chain transactions (once confirmed by the relevant blockchain) as these functions involved a transfer of cryptocurrency between different digital wallets recorded on the publicly available distributed ledger for the cryptocurrency, produced by the cryptocurrency's blockchain. A deposit would result in the ledger showing a transfer from the depositor's digital wallet, into one of Cryptopia's digital wallets. Similarly a withdrawal would be recorded as a transfer from one of Cryptopia's digital wallets, to the recipient's digital wallet.

30. Cryptopia had the ability to reverse transactions that occurred on the exchange (off chain transactions). Cryptopia could not reverse on chain transactions because Cryptopia could not reverse transactions confirmed on the blockchain (which where governed by the consensus mechanism, outside of Cryptopia's control).

Accounts on the exchange versus private digital wallets off the exchange

31. Accounts on the exchange are different to digital wallets that are used make transactions recorded on the blockchain and ledger. Accounts on the exchange are used solely on the exchange. An account shows the account holder's coin balance, which is the amount that an account holder can trade, transfer or withdraw from the exchange. A digital wallet is stored off the exchange; it 'stores' the actual cryptocurrency, and it is the public key address that is recorded on the blockchain of any given cryptocurrency.

32. For example, when an account holder makes a deposit to Cryptopia of a given cryptocurrency, the blockchain, being the public ledger associated with a given cryptocurrency, records the trade going from the depositor's digital wallet and into Cryptopia's digital wallet. Transactions between accounts on the exchange do not appear on the blockchain for any cryptocurrency. When a trade occurs on the exchange, the cryptocurrency remains in Cryptopia's digital wallet, but the account holders' accounts (on the exchange) update to reflect the details of the trade, being the transfer of currency from one account to another and the deduction of fees for the transaction.

Cryptopia's terms and conditions

33. The earliest cached record of any terms and conditions for Cryptopia is the version that was cached in January 2015, which is found at pages 27 to 28 of DIR4 of Mr Ruscoe's third affidavit.[24] It is not clear whether Cryptopia had a version available prior to January 2015.

34. On 7 August 2018 Cryptopia amended its terms and conditions (**Amended Terms**).[25] The Amended Terms included express reference to Cryptopia holding account balances on "*trust*" for its users.

Deposits, trades, transfers and withdrawals on the exchange

35. Having an account on Cryptopia enabled account holders to carry out the following functions:

    (a) make a cryptocurrency deposit to the exchange;

    (b) trade cryptocurrency on the exchange (this is where a cryptocurrency was traded in exchange for another cryptocurrency on the exchange);

[24] Third Ruscoe Affidavit at annexure DIR4 pages 27 to 28.
[25] First Ruscoe Affidavit at annexure DIR1 page 2.

(c) transfer cryptocurrency on the exchange (transfers were a one way transaction from one account to another);

(d) withdraw cryptocurrency from the exchange;

(e) make a deposit of fiat currency to receive the New Zealand Dollar Token ("**NZDT**") (a separate process to making a standard deposit of cryptocurrency to the exchange).

(f) apply to Cryptopia to list the account holder's own cryptocurrency on the exchange (for a fee).

36. In preparation for this hearing, the liquidators requested Cryptopia staff to provide a detailed explanation of the above processes, with screenshots of the processes.[26] The liquidators were provided with the documents annexed to the Second Affidavit of Mr Ruscoe, at pages 16 to 56 of DIR3.[27] For clarity we note that the screenshots used in these documents show the exchange as it would have looked at the date of liquidation. It did not always look this way. An earlier version of the exchange is shown in the screenshots contained at pages 19 to 26 of DIR4 in Mr Ruscoe's latest affidavit.[28]

37. Both versions contain a useful explanation of the technical processes for making a deposit, trading, transferring and withdrawing from the exchange. The processes can be summarised as:

(a) **Making a deposit in cryptocurrency:**[29] to make a deposit to the exchange an account holder would transfer cryptocurrency from a privately held digital wallet, into one of Cryptopia's digital wallets. This was an on chain transaction. Once Cryptopia had processed the transaction, and the required number of confirmations had been achieved on the blockchain for that cryptocurrency, the account holder would receive a positive coin balance in its account on the exchange. The required number of transactions was set by Cryptopia to mitigate against the risk of the blockchain transaction reversing. The account holder would then have the ability to trade, transfer or withdraw its coin balance.

[26] Second Ruscoe Affidavit at [18].
[27] Second Ruscoe Affidavit at pages 16 to 56 of annexure DIR3.
[28] Third Ruscoe Affidavit at [7].
[29] Explanation document referred to at paragraph 36 can be found at pages 16 to 19 of DIR3.

(b) **Making a trade:**[30] The exchange operated in a similar way to any trading exchange, there was an offer list and users had the ability either to accept an offer or to post their own offer**.** When a trade occurred the users' coin balances would update to reflect the trade. This was an off chain transaction. The cryptocurrency did not move from Cryptopia's digital wallet when trades or transfers occurred.

(c) **Making a transfer:**[31] Transfers were one way transactions that were free of any fees. Instead of trading an amount of Bitcoin for an amount of Ethereum, account holders could simply transfer cryptocurrency to another account (i.e. account holder A can transfer 2 Bitcoin to account holder B). This feature was used for tips, distribution of fee shares to Cryptopia Fee Shares holders ("**CEFS**"), transferring the holdings of a closed account to the "Dustbin" and for user to user transfers.

(d) **Withdrawal:**[32] To make a withdrawal users would need to specify the address that they wanted to send the cryptocurrency to (the digital wallet that existed outside of the exchange) and the amount that they wanted to withdraw. Users were required to complete two factor authentication before Cryptopia processed the withdrawal. A unique code would be sent to the user's registered email address, which it would then need to enter into the exchange to complete the withdrawal. A successful withdrawal is an on chain transaction. The distributed ledger for the particular cryptocurrency would record a transaction from Cryptopia's digital wallet to the account holder's selected destination wallet.

(e) **Making a deposit or withdrawal in fiat currency in exchange for NZDT:** Cryptopia offered users the ability to receive NZDT (the NZD token) in exchange for NZD. The exchange rate was 1:1. Cryptopia operated a separate bank account that held the NZD that backed the NZDT holdings. This bank account was initially an ASB Account. The affidavit of Timothy Brocket sworn 27 November 2019 explains that ASB closed the account on 9 February 2018 due to AML/CFT concerns.[33] Mr Brocket explains that after the closure of the ASB account Cryptopia continued to provide the NZD to NZDT exchange

[30] Explanation document referred to at 36 can be found at pages 20 to 35 of DIR3.
[31] Explanation document referred to at 36 can be found at pages 36 to 44 of DIR3.
[32] Explanation document referred to at 36 can be found at pages 45 to 54 of DIR3.
[33] Affidavit of Timothy James Strahan Brocket sworn 27 November 2019 at [8] to [9].

service through a Nelson Building Society account, but that the feature was not as commonly used.[34]

SQL database

38. The SQL database was Cryptopia's internal database that recorded transactions carried out on the exchange and the coin balance(s) of each account.

Cryptopia's accounts, and how Cryptopia generated income

39. Cryptopia charged account holders a fee for deposits, trades, withdrawals and listing coins. Cryptopia had several accounts on the exchange into which fees were paid (for example Withdrawal Fees). These accounts had a corresponding SQL entry.

40. 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.[35] To recognise the income in its accounting system, Cryptopia produced a weekly report that summarised the trading fees generated in the previous week.[36] The accounts administrator would convert the fees into NZD, and import this report into the Company's accounting system (Xero).[37]

41. The underlying holdings of the Company accounts were also reconciled into Xero, and recorded as Company assets.[38] A journal entry would be created that credited the relevant income account, and debited the company asset account.[39] This was set up like a bank account in Xero. [40]

42. If Cryptopia needed fiat currency to pay business expenses the Director of Finance and Administration would seek approval from management based on the amount due to creditors (including payroll). [41] Once approval was obtained the Director of Finance would use an over the counter cryptocurrency exchange service that offered the function of converting cryptocurrency into fiat currency. [42]

[34] Affidavit of Timothy James Strahan Brocket sworn 27 November 2019 at [8] to [9].
[35] Third Ruscoe Affidavit at [10].
[36] Third Ruscoe Affidavit at [11].
[37] Third Ruscoe Affidavit at [11].
[38] Third Ruscoe Affidavit at [12].
[39] Third Ruscoe Affidavit at [12].
[40] Third Ruscoe Affidavit at [12].
[41] Third Ruscoe Affidavit at [13]-[14].
[42] Third Ruscoe Affidavit at [13]-[14].

The hack

43. Cryptopia was hacked in January 2019. It is estimated that the hackers stole approximately NZD30 million worth of cryptocurrency from the exchange. The stolen cryptocurrency was withdrawn from the exchange using the private keys for the currencies in question, so Cryptopia was not able to reverse the transactions.

44. The hack is the subject of an ongoing police investigation.

45. The liquidators are currently 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.

46. Once that process is completed then the liquidators will be able to carry out a reconciliation exercise between the actual cryptocurrency holdings that the Company controls or owns and the account holders' 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 Court determines this Application. The liquidators understand that no such reconciliation process had been carried out by the Company pre-liquidation.

Liquidation of Cryptopia

47. Cryptopia was put into liquidation on 14 May 2019 (**"liquidation date"**). The liquidators have discovered that at the liquidation date Cryptopia had:

    (a) 921,629 account holders with a positive cryptocurrency balance in one or more enabled coins, including approximately 15 accounts owned by Cryptopia (such as "Withdrawal Fees").[43] The estimated total value of cryptocurrencies held by the Company was NZD217 million as at the liquidation date, applying publicly available conversion rates; [44]

[43] First Ruscoe Affidavit at [6]-[8].
[44] First Ruscoe Affidavit at [8].

(b) Thirty seven known creditors (who are not account holders) with claims that total over NZD12.7 million.[45]

Past applications to this Court and the SDNY Bankruptcy Court

48. The liquidators have made the following applications to the High Court, since appointment:

(a) Application for orders under ss 255 and 257 of the Companies Act 1993 to vary the services requirements in light of the vast number of Account Holders, and limited contact information available;

(b) Application for direction under s 284 of the Companies Act 1993 to convert certain amounts of cryptocurrency into fiat currency to go towards the liquidators' reasonable costs and expenses of and incidental to the protection, preservation, recovery, management and administration of the cryptocurrency held by the Company, whether or not the cryptocurrency is beneficially owned by account holders;

(c) The two applications filed in these proceedings, being this Application, and the interlocutory application for Orders as to representation and service.

49. In addition, the liquidators applied for interim relief and recognition of the liquidation as a foreign main proceeding in the Bankruptcy Court in the Southern District of New York, pursuant to Chapter 15 of the US Bankruptcy Code. The Court granted the relief sought and appointed Mr Ruscoe as the Foreign Representative of the Debtor. This enabled the liquidators to secure cryptocurrencies, data and servers held at a third party data centre/server farm in Arizona.

Treatment of cryptocurrency in New Zealand to date

50. There is currently no reference to cryptocurrency in New Zealand legislation. Nevertheless, the use and issues arising from the use of cryptocurrency have been considered by the Inland Revenue Department, Reserve Bank and the Financial Markets Authority.

51. The Inland Revenue Department has issued public rulings in respect of cryptocurrencies:[46]

[45] First Ruscoe Affidavit at [18](b).
[46] IRD Ruling, BR Pub 19/01: Income tax – salary and wages paid in crypto-assets, 27 June 2019; IRD Ruling BR 19/02: Income tax – bonuses paid in crypto-assets, 27 June 2019; IRD Ruling BR 19/03: Income tax – employer

(a) BR Pub 19/01: Income tax – salary and wages paid in crypto-assets (**19/01 Ruling**);

(b) BR Pub 19/02: Income tax – bonuses paid in crypto-assets (**19/02 Ruling**);

(c) BR Pub 19/03: Income tax – employer issues crypto-assets provided to an employee (**19/03 Ruling**); and

(d) BR Pub 19/04: Income tax – application of the employee share scheme rules to employer issued crypto-assets provided to an employee signed (**19/04 Ruling**).

(**the Rulings**)

52. The Rulings define "*crypto-assets*" as covering "*digital assets that use cryptography and blockchain technology to regulate their generation and verify transfers*", and acknowledge that "*[t]hese are sometimes referred to by other terms including "cryptocurrencies" and "tokens".*

53. The 19/04 Ruling also refers to an "*equity token*", which it defines as covering "*a specific subset of crypto-asset*". It ruled that:

> The crypto-asset payments are "PAYE income payments" under s RD 3 and are subject to the PAYE rules.
>
> The provision of the crypto-assets by the employer (or other group company) to the employees is an "*employee share scheme*" as defined in s CE 7.
>
> Section CE 2 will apply to determine the value of the taxable benefit received by employees.
>
> The amount of the taxable benefit will be the employees' employment income under s CE1(1)(d).

54. The New Zealand Reserve Bank has characterised Bitcoin as:[47]

> best thought of as electronic accounting systems that keep track of people's transactions and hence remaining purchasing power.

55. It released the "*Reserve Bank of New Zealand Analytical Notes*" in November 2017 which discussed cryptocurrencies, and distributed ledger technology.

issues crypto-assets provided to an employee, 30 July 2019; IRD Ruling BR 19/04: Income tax – application of the employee share scheme rules to employer issued crypto-assets provided to an employee, 30 August 2019.

[47] Reserve Bank of New Zealand Analytical Notes *Crypto-currencies – An introduction to not-so-funny monies* (AN2017/07, November 2017) at page 2.

In the paper, the Reserve Bank criticises cryptocurrencies as failing to satisfy "*basic functions of* money" such as:[48]

(a) Cryptocurrencies are not a generally accepted form of payment;[49]

(b) The consensus process limits the number of transactions that can be processed in any particular day, and there is an increasing number of transactions ending up in the queue awaiting confirmation;[50]

(c) Cryptocurrencies are a highly volatile store of value, and are therefore not a good numeraire.[51]

56. The paper explains the Reserve Bank's decision not to regulate cryptocurrencies at this point in time. It is essentially because cryptocurrencies do not pose any immediate threat to New Zealand's financial system, and therefore do not to fall within the ambit of the Bank's regulatory function.[52] (To put this statement in context, the market capitalisation for Bitcoin as at the date of liquidation was between USD160 and 170 billion. In 2018 NZ banks' assets total value was NZD530 billion, according to the NZ Bankers' Association.[53]) The Bank's regulatory focus is described in the paper as being "*on systemically important banks, non-bank deposit-takers, insurers, and systematically important financial infrastructure*" with the overall intention to "*promote sound and efficient financial system for New Zealand*".[54]

57. The Bank does not regard cryptocurrencies as an immediate threat to New Zealand's financial system.[55]

58. The Financial Markets Authority (**FMA**) has issued commentary on cryptocurrencies, including that:

(a) "*[e]xchanges allowing cryptocurrency trading fall within the financial service category of 'operating a value transfer service'*" and must comply with the fair dealing requirements in the Financial Markets Conduct Act 2013 (**FMA Act**) and the Financial Service Providers (Registration and Dispute Resolution) Act 2008 may apply.

[48] Reserve Bank of New Zealand Analytical Notes *Crypto-currencies – An introduction to not-so-funny monies* (AN2017/07, November 2017) at page 20 to 24.
[49] Ibid at 20-21.
[50] Ibid at page 21 to 22.
[51] Ibid at page 22 to 23.
[52] Ibid at page 37.
[53] https://www.nzba.org.nz/consumer-information/nzba-assistance/banking-industry-facts-figures/
[54] Reserve Bank of New Zealand Analytical Notes at page 37.
[55] Ibid at page 37.

59. We note that Cryptopia was registered under the Financial Service Providers (Registration and Dispute Resolution) Act 2008.

60. The Department of Internal Affairs published an online article on digital currencies in November 2019.[56] The article refers to cryptocurrencies as "*virtual assets*", and states that "*[a] virtual asset is a digital representation of value that can be digitally traded or transferred and can be used for payment or investment purposes*".

Academic background to cryptocurrency

61. Bitcoin has been described as a "*mathematical construct*".[57] What the 'owner' of a Bitcoin has is the ability to transfer Bitcoin through control of the private key. One commentator has suggested that it is more appropriate to think in terms of 'control' rather than ownership of Bitcoin as it is only knowledge of the private key that gives 'control' of the Bitcoin.[58]

62. Sarra and Gullifer pose the question as:[59]

> what is the candidate for being considered property? The record of transfer, the private key or the 'thing' that is the subject matter of the transfer, which does not even exist as a piece of code?

63. Bitcoin does not take a physical, tangible form and does not even take the form of a piece of code. Instead, Bitcoin is "*the subject matter of the record of a series of transactions recording the 'creation' and 'transfer' of something*".[60]

64. Most of the discussion about Bitcoin (academic and amongst those trading in Bitcoin) consider it as a thing in and of itself. There are websites that track the market price of each unit of a cryptocurrency,[61] and instantaneous data of Bitcoin transactions taking place in the world at any point in time.[62] Further, the use of terminology such as a 'wallet' analogises the concept with the physical equivalent. Even organisations such as the European Central Bank refer to Bitcoins being 'stored' in a digital wallet, when what is being stored is actually a record of the user's addresses and associated keys.[63]

---

[56] Department of Internal Affairs "*Virtual Asset Service Providers*" (November 2019, www.dia.govt.nz/AML-CFT-Virtual-Asset-Services-Providers).
[57] David Quest "Taking security over Bitcoins and other virtual currency" (2015) 7 Journal of Int Banking and Fin Law 401.
[58] At 402.
[59] J Sarra and L Gullifer "Crypto-Claimants and Bitcoin Bankruptcy: Challenges for Recognition and Realization" (2019) 28 International Insolvency Review 233 at 243.
[60] At 243.
[61] For example https://coinmarketcap.com/
[62] For example https://www.cryptocompare.com/coins/btc/trades/USDT
[63] European Central Bank "Virtual currency schemes" October 2012 at 3.1.1.

LAW

The supervisory jurisdiction of the Court – s 284 of the Companies Act 1993

65. This Application is made under section 284 of the Companies Act 1993 ("**Act**").[64] The Court has a supervisory jurisdiction to "*give directions in relation to any matter arising in connection with [a] liquidation*" under s 284(1)(a) of the Act.[65]

66. The learned authors of *Heath and Whale on Insolvency*, in commenting on the application of section 284 of the Act, state that "*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]*".[66]

Liquidators' duties including in the liquidation of a trustee company

67. Section 253 of the Companies Act describes 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 this 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 section 313(4)
>
> **in a reasonable and efficient manner.** (Emphasis added)

68. The liquidator of a corporate trustee has the option to either administer the trust, or if authorised by the trust deed or court, to retire as trustee.[67] Retirement may be appropriate if there is a conflict between the statutory duties of a liquidator, and any trustee duties that arise. The liquidator has the trustee's right to indemnity over trust assets for costs reasonably and necessarily incurred in administering the trust property.[68]

---

[64] Companies Act 1993 s 284; High Court Rules 2016, r 19.4 for the ability to seek directions by way of originating application.
[65] Companies Act 1993 s 284.
[66] *Heath and Whale on Insolvency* (online ed, LexisNexis) at [22.8(e)].
[67] Insolvency – A to Z of New Zealand Law (online looseleaf ed, Thomson Reuters) at [33.47.4.2] Creditors' remedies and the liquidation or bankruptcy of a trustee.
[68] *Ranolf Company Ltd (in liq) v Bhana* [2017] NZHC 1183; and Butler (ed) *Equity and Trusts in New Zealand* (online looseleaf ed, Thomson Reuters) at [16.6.12].

Issue 1(a) whether any or all of the Digital Assets held by the liquidators are "property" within the definition of s 2 of the Companies Act 1993

69. It is open for the Court to find that the Digital Assets are not "*property*" within the meaning of s 2 of the Companies Act 1993, but are nevertheless assets of the Company.

70. To date, appointed counsel both agree that the Digital Assets are property within the s 2 definition. Counsel for the Creditors submits that the Digital Assets are nevertheless not capable of being held on trust, whereas counsel for the Potential Trust Beneficiaries supports the pro-trust position.

71. Counsel for the Potential Trust Beneficiaries has also submitted the alternative argument that, in the event that the Court finds that the Digital Assets do not satisfy the s 2 definition of property, they are nevertheless "assets" under the Act, and are held on trust.[69]

72. For the benefit of the Court we raise the following arguments in support of a finding that the Digital Assets are not "*property*" within the meaning of s 2 of the Companies Act 1993, but are nevertheless assets:

    (a) The differential use of the term "*property*" and "*assets*" in the Companies Act strongly suggests that the terms are intended to cover different things. Assets is not defined in the Act, however it is arguable that "assets" are intended to have a wider ambit than property, to include all things of realisable value regardless of whether the definition of "property" is satisfied.

    (b) The Digital Assets have several characteristics that are inconsistent with the definition of property in s 2 of the Companies Act.

LAW

73. Section 2 of the Companies Act defines "*property*" as:[70]

> 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

74. The following points can be noted:

[69] Submissions for the Potential Trust Beneficiaries at [64].
[70] Companies Act 1993, s 2.

(a) The definition is circular in that property is defined as including established types of property, such as "*tangible or intangible, real or personal, corporeal or incorporeal*" and rights, interests and claims of every kind in relation to established types of property.[71] This incorporates the definition of property at general law into the s 2 definition.

(b) The definition is inclusive and wide in that it extends "*property*" for the purposes of the Companies Act to include "*rights, interests, and claims of every kind in relation to property however they arise*".[72]

(c) The definition does not expressly create a new definition of "*intangible*", "*personal*" or "*incorporeal*" property.[73]

Statutory interpretation

75. The principles of statutory interpretation are well-known. Materially:

(a) The approach to statutory interpretation in New Zealand is encapsulated by s 5 of the Interpretation Act 1999, which requires the Court to ascertain the meaning of an enactment from its text and in the light of its purpose.[74]

(b) In *Commerce Commission v Fonterra Co-operative Group Ltd*, the Supreme Court held:[75]

> It is necessary to bear in mind that s 5 of the Interpretation Act 1999 makes **text and purpose the key drivers of statutory interpretation**. The meaning of an enactment must be ascertained from its text in the light of its purpose. Even if the meaning of the text may appear plain in isolation of purpose, that meaning should always be cross-checked against purpose in order to observe the dual requirements of s 5. **In determining purpose the court must obviously have regard to both the immediate and the general context**. **Of relevance too may be the social, commercial or other objective of the enactment.**
>
> [Emphasis added]

(c) In ascertaining the meaning of a statutory provision from its text and purpose, both internal and external context may be relevant.[76] It is the responsibility of the courts to ascertain Parliament's intentions objectively. This exercise primarily requires an examination of the legislation as enacted, rather than speeches by government ministers

[71] Companies Act 1993, s 2.
[72] Companies Act 1993, s 2.
[73] Companies Act 1993, s 2.
[74] Interpretation Act 1999, s 5.
[75] *Commerce Commission v Fonterra Co-operative Group Ltd* [2007] NZSC 36, [2007] 3 NZLR 767 at [22].
[76] *Turners & Growers Ltd v Zespri Group Ltd (No 2)* (2010) 9 HRNZ 365 (HC) at [28].

or members of the executive expressing their subjective views. Subject to that cautionary note, reference to legislative history, including Parliamentary debates, is permissible when on an objective analysis it may provide valuable contextual assistance for the interpretation exercise.[77]

(d) If a provision is susceptible to several meanings, the Courts are likely to choose *"the one that leads to the most practical and sensible result*."[78]

(e) Often legislation is drafted at a time when the subject matter of interpretation has not been contemplated.[79] "*Where Parliament has not anticipated the facts, there are always difficult problems of statutory interpretation*",[80] and the words must be read in light of the purpose and the context of the statute.

Legislative background materials

76. A definition for "*property*" was not included in the Law Commission Report that was the basis of the first iteration of the Companies Bill 1990,[81] or the first version of the Companies Bill 1990. [82]

77. During the submissions process, the New Zealand Law Society recommended that the word "*property*" be given a broad definition for the purposes of this Act.[83] The Law Society submitted that "*[i]t should be made very clear, if this rather shorthand reference is to be maintained, that it is a broad term covering value of all rights and prospective interest as well as the more obvious conception of property*."[84]

78. The Departmental report on the Companies Bill also recommended that "*property should have a broad meaning to cover all rights and interest in property*".[85]

79. Ultimately the Justice and Law Reform Select Committee adopted these recommendations and added a definition of "*property*" into the Bill.[86] The

[77] *Turners & Growers Ltd v Zespri Group Ltd (No 2)*, above n 76, at [30] and [31]; *Vector Ltd v Commerce Commission* [2012] NZSC 99, [2013] 2 NZLR 445 at [62] to [67].
[78] JF Burrows and RI Carter *Statute Law in New Zealand* (5th ed, LexisNexis, Wellington 2015) at 344.
[79] Burrows and Carter, above n 78, at 189.
[80] *Carruthers v Otago Regional Council* [2013] NZRMA 428 (HC) at [32].
[81] Law Commission *Company Law: Reform and Restatement* (NZLC R9, 1989).
[82] Companies Bill 1990 (50-1).
[83] New Zealand Law Society "Submission to the Justice and Law Reform Select Committee on the Companies Bill 1990" at 12.
[84] At 12.
[85] Department of Justice "Report on the Companies Bill 1990" (DJ/12, 22 April 1992) at 4.
[86] Companies Bill 1990 (50-2), cl 2(1).

definition passed into law and has remained the same in the present version of the Companies Act.

Case law – s 2 of the Companies Act

80. The courts have accepted that the definition of property in the CA is "*wide*" and includes "*money*", despite money not being expressly included in the s 2 definition. The following cases demonstrate this:

    (a) The Supreme Court in *McIntosh v Fisk* acknowledged that the definition of "*property*" in s 2 of the Companies Act 1993 is "*wide*".[87] The Supreme Court made this comment when accepting that 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.

    (b) In *Chapman v Effective Fencing Ltd* Associate Judge Faire held that "*[t]he 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*.".[88]

81. The Supreme Court recently commented that the definition of property in the Property (Relationships) Act 1976 (**PRA**) was "*inclusive*", with an arguable extension of the normal concept of property to include a right or interest, even if it is not a right or interest in property.[89] The definition of property in the PRA is:

> property includes—
>
> (a) real property:
>
> (b) personal property:
>
> (c) any estate or interest in any real property or personal property:
>
> (d) any debt or any thing in action:
>
> (e) any other right or interest

82. In contrast, the definition of property in the Companies Act is limited to "*rights, interests, and claims of every kind **in relation to property** however they arise (**emphasis added**)*".[90]

---

[87] *McIntosh v Fisk* [2017] NZSC 78, [2017] 1 NZLR 863 at [55].
[88] *Chapman v Effective Fencing Ltd* HC Auckland CIV-2004-404-5905 21 April 2005 at [34].
[89] *Clayton v Clayton* [2016] NZSC 29, [2016] 1 NZLR 551 at [27].
[90] Companies Act 1993, s 2.

Definition of property at general law

83. Lord Wilberforce's judgment *National Provincial Bank v Ainsworth* is often cited as the classic statement of the characteristics of property.[91] His Lordship stated:[92]

> 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 …

84. Property is commonly characterised as the legal relationship between a person and a subject matter, which includes the right of possession and use. We refer to the following:

85. Black's Law Dictionary includes the following relevant definitions:[93]

(a) Property:[94]

1. Collectively, the rights in a valued resource such as land, chattel, or an intangible. It is common to describe property as a "*bundle of rights*." These rights include the right to possess and use, the right to exclude, and the right to transfer.

2. Any external thing over which the rights of possession, use, and enjoyment are exercised.

(b) Possession: [95]

1. The fact of having or holding property in one's power; the exercise of dominion over property.

2. The right under which one may exercise control over something to the exclusion of all others; the continuing exercise of a claim to the exclusive use of a material object.

3. *Civil law.* The detention or use of a physical thing with the intent to hold it as one's own. …

4. Something that a person owns or controls.

Orthodox view – information is not property

86. The orthodox view is that information, even confidential information, is not property.[96] This position has traditionally been rationalised on the basis that information, unlike property, cannot be separated from any person who once possessed it. While there exists no exhaustive definition of property, a

[91] *National Provincial Bank v Ainsworth* [1965] 1 AC 1175 (HL) at 1247-8.
[92] At 1247-8.
[93] Black's Law Dictionary (11th ed, Thomson Reuters, United States of America, 2019).
[94] At 1470.
[95] At 1408.
[96] *Dixon v R* [2015] NZSC 147, [2016] 1 NZLR 678.

fundamental aspect is the ability to control access to a thing.[97] As information is "*open to all who have eyes to read and ears to hear*", information cannot be controlled in the same way a thing can.[98] The exception to this is confidential information. However, confidential information is protected by the equitable misuse of confidential information doctrine and is not regarded as property.[99] The approach of the Court has been to see the obligation as operating against the conscience of the person holding the information, as opposed to the nature of the information itself as enforceable against the person holding it. [100]

87. The rejection of information as property has resulted in a distinction between information, and the medium on which it is contained. If it is contained on a tangible medium (i.e., a piece of paper), the tangible medium can be property but the information is not.[101]

88. The orthodox view has been settled since *Oxford v Moss.*[102] In that case, a university student was charged with theft in circumstances in which he had unlawfully acquired an examination paper, read its contents and then returned it. The Court held that the student could not be guilty of theft. What he had obtained was the information contained on the paper. The information was confidential, but it was not property, unlike the physical piece of paper on which it was written. Information, even confidential information, was not something capable of being owned in law.

89. The Court of Appeal in *Dixon v R*[103] recently considered the correctness of this approach. While accepting the distinction between information and the medium on which it is contained has been criticised as "*illogical and unprincipled*", and the need for legal concepts to evolve, the Court of Appeal declined to depart from the orthodox approach.[104] The Court listed strong policy reasons, including the impact on the free flow of information and freedom of speech, the absence of any reference to information-like assets in the amended definition of property in the Crimes Act, and *Oxford v Moss* (among other United Kingdom authorities) in declining to depart from the orthodox approach.[105]

---

[97] *Yanner v Eaton* (1999) 201 CLR 351 at [17]-[18].
[98] *Boardman v Phipps* [1967] 2 AC 46 (HL) at 127 per Lord Upjohn.
[99] *Garrow & Fenton's Law of Personal Property in New Zealand* (7th ed, Wellington, Lexis Nexis, 2010) at [10.3.8].
[100] Ibid.
[101] Ibid.
[102] *Oxford v Moss* (1979) 68 Cr App R 183.
[103] *Dixon v R* [2014] NZCA 329, [2014] 3 NZLR 504.
[104] At [33].
[105] At [37].

Authority on cryptocurrency as property

90. We will not repeat the relevant authorities on this point set out in detail in the submissions for the Potential Trust Beneficiaries at [113] to [119],[106] and the *Legal Statement on Cryptoassets and Smart Contracts* ("**Legal Statement**") filed with the submissions for the Creditors.[107] We set out below two additional relevant authorities.

91. The recent decision High Court of England and Wales in *AA v Persons Unknown* [2019] EWHC 3556 (Comm) dated 13 December 2019 held that cryptocurrencies are property.[108] The Court 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 (among other things).

92. Only counsel for the applicant insurance company appeared at the hearing and filed submissions. The Court primarily relied on the Legal Statement of in concluding that cryptocurrency was property. The court did not hear argument on the issue.

93. In *Police v Rowland & Ors* [2019] NZHC 3314 the High 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 was not raised in the proceeding.

New Zealand case law – accepting digital files as property

94. New Zealand courts have accepted that digital files are property:

    (a) Recently, the High Court in *Henderson v Walker* accepted that digital files are "*property*" capable of being subject to the tort of conversion.[109]

[106] Submissions for the Potential Trust Beneficiaries at [113] to [199].
[107] The LawTech Delivery Panel UK Jurisdiction Taskforce *Legal statement on cryptoassets and smart contracts* (November 2019, https://technation.io/about-us/lawtech-panel).
[108] *AA v Persons Unknown* [2019] EWHC 3556 (Comm) at [57] to [59].
[109] *Henderson v Walker* [2019] NZHC 2184.

(b) The Supreme Court in *Dixon v R* accepted that digital files were "*property*" for the purposes of the Crimes Act 1961.[110]

95. In both cases the courts accepted the orthodox position that information is not property and justified characterising digital files as property by distinguishing them from "*pure information*".

96. For the Supreme Court, in the context of the Crimes Act, this was because the files (digital footage) in *Dixon*:

(a) Can be identified;

(b) Have a value;

(c) Are capable of being transferred; and

(d) Have a physical presence, albeit one that cannot be detected by means of unaided senses.

97. For Thomas J, in the context of the tort of conversion, this was because it was possible to control, and therefore possess, the files (a large number of documents, emails and images). Possession requires 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. Thomas J considered both were satisfied on the facts:

(a) 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) Exhaustibility: digital files can be deleted or modified so as to render them useless or inaccessible.

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

Summary of the definition of property

98. In summary:

(a) Property is commonly defined by the legal rights that a person may exercise over a subject matter.

(b) Whichever position the Court takes on the definition of "*property*" in the Companies Act, at a basic level it must include a subject matter capable of possession,[111] and that has a degree of permanency.[112]

(c) Practical considerations, such as whether third parties can be excluded from accessing or using the subject matter are relevant to the question of whether a subject is property.[113] If third parties cannot be excluded from it, the subject matter is unlikely to be considered property (information is a classic example of this).

Summary of counterarguments

99. It is open to the Court to find that the Digital Assets (being the cryptocurrencies that have realisable value) are not property within the meaning of the Companies Act, but are nevertheless assets under the Act if the Court makes the following findings:

(a) That there is a distinction between "*property*" and "*assets*" under the Act;[114] and

(b) That the Digital Assets do not satisfy the definition of property but are nevertheless assets.

100. Counsel for the liquidators consider that it is not open to the Court to find that the Digital Assets are neither property nor assets, because the Digital Assets have realisable value and a finding that they were not assets under the Act would mean the liquidators would not have any rights in respect of the Digital Assets.[115]

[111] Black's Law Dictionary, above n 93 at 1470; see *Henderson v Walker* [2019] NZHC 2184 at [263] where the Court held it is possible to apply the concept of possession to digital assets.
[112] *Ainsworth,* above n 22 at 1247-8.
[113] *Boardman v Phipps,* above n 98 at 127-128 per Lord Upjohn. See discussion of excludability in *Henderson v Walker* at [264].
[114] Companies Act 1993.
[115] Section 253.

The assets v property distinction in the Companies Act 1993

101. The Act has references to both "*property*" and "*assets*".[116] Assets are not defined in the Act, other than the section specific definition at section 129 which applies to "*major transactions*".[117] The section specific definition states "*In this section **assets** includes property of any kind, whether tangible or intangible*".[118] The definition is expressly limited to the section, and the use inclusive language supports a finding that the term asset is wider than property.

102. A liquidator's powers are over the company's assets:

    (a) Section 248(1)(a) of the Act provides that "*the liquidator has custody and control over the company's assets*".[119]

    (b) Section 253 characterises the principal duty of a liquidator as "*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 section 313(4) in a reasonable and efficient manner" (**emphasis added**)*.[120]

103. The term "*asset*" is used elsewhere in the Act:[121]

    (a) Solvency test:

        (i) The test here is that "*the value of the company's assets is greater than the value of its liabilities*"[122]

    (b) Part 15: Approval of arrangements, amalgamations, and compromises by court:

        (i) S 237 provides that the "*Court may make additional orders relating to – (1)(a) the transfer or vesting of **real or personal property**, **assets**, rights, powers, interests, liabilities, contracts, and engagements:" (**emphasis added**)*.

[116] Companies Act 1993.
[117] Section 129 (2).
[118] Section 129(2).
[119] Section 248(1).
[120] Section 253.
[121] Companies Act 1993.
[122] Section 4(1)(b).

(c) Clause 1(1) of Schedule 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***."

(**emphasis added**)

104. The use of distinct terms, particularly when the terms are used as separate items within a list (as in s 237), suggests a legislative intention for the terms to cover different items. This view is supported in the obiter comments of Warner J in *Re Rae*.[123] In the UK Insolvency Act context, Warner J stated that not every asset that could be realised or turned to account was "*property*" within the Insolvency Act**.** This suggests that despite the wide definition of property, "*asset*" is even wider.[124]

Characteristics that are inconsistent with the definition of property in the Companies Act

105. The characteristics that are inconsistent with a finding that the Digital Assets are property within the meaning of s 2 of the Act are as follows:

(a) There are practical difficulties with possession and excludability in light of the control that anonymous third party actors have over the cryptocurrency system.

(b) There are arguably no legally enforceable rights over cryptocurrency stored in private digital wallets. The system is, by design, not governed by any laws or regulations, and operated by multiple anonymous actors, making enforcement difficult.

(c) Any definition of cryptocurrency as property on the basis that it holds realisable value is difficult, as the ability to realise value from cryptocurrency is contingent on third parties offering exchange

[123] *Re Rae* [1995] BCC 102 (Ch) at 113.
[124] See also David Brown "Property and the insolvent estate" (2007) 11 Journal of South Pacific Law (2007) 89 at 96.

services, albeit that such services appear to be readily available, upon payment of fees.

Practical problems with possession of cryptocurrencies

106. Parties who hold cryptocurrency in a private digital wallet do not have sole control over it. The technical evidence on cryptocurrency shows that whether a transaction is confirmed in the blockchain, including whether any confirmation of a transaction is reversed or remains confirmed, can be controlled by third parties:

(a) On a majority consensus system, any party that is in control of the majority of computers on the network has the ability to reverse previously confirmed transactions (i.e. 51% attacks).

(b) Even without a hostile actor in control of the majority of the network, the network can cause previously confirmed blocks to become orphaned.

(c) Any party that has the ability to change the protocol may have the ability to reverse previously confirmed blocks and require software upgrades to take place (which will change the nature of the cryptocurrency in question).

No bundle of legal rights over cryptocurrency

107. It is arguable that there is no ability to have legal rights of ownership and possession over cryptocurrency for the following reasons:

(a) Cryptocurrencies exist digitally, in a jurisdictional vacuum. Cryptocurrencies are not tied to any geographical location or any legal system by design. Cryptocurrencies are intended to facilitate trading between economic actors in a system that is not able to be controlled by centralised institutions, such as governments. The ability for cryptocurrencies to exist and be traded between digital wallets is governed by the protocol for the particular cryptocurrency (set of rules created at the time the cryptocurrency is created) and anonymous actors (the traders and the parties carrying out the consensus mechanism). It is difficult to conceive both:

(i) of a principled basis for resolving any conflict of law issues that might arise over any particular cryptocurrency; and

(ii) how any legal rights could arise in respect of cryptocurrencies that exist in a self-verifying system controlled by anonymous third party actors and governed by a digital protocol.

(b) Outside of an exchange (where a contractual relationship can arise between a cryptocurrency trader and the exchange) practical difficulties prevent parties from having any enforceable legal rights in respect of cryptocurrency itself:

(i) The parties are anonymous to each other.

(ii) The conduct of a particular cryptocurrency is governed by the protocol for that cryptocurrency (which is the set of rules that governs how the cryptocurrency exists) which is enforced through the conduct of anonymous third parties.

108. A finding that cryptocurrencies became property once transferred into an exchange is problematic. A more consistent analysis would be to accept that when cryptocurrency is deposited into an exchange parties receive contractual rights against the exchange. There is nothing in the transfer of cryptocurrency into an exchange capable of transforming the cryptocurrency into property.

The ability to use cryptocurrency as a store of value is contingent upon third party actors providing exchange services

109. Any analysis that relies on the ability to exchange cryptocurrency for real value as the basis for its characterisation as property needs to take into account the issue that the ability to receive any real value in exchange for a cryptocurrency is entirely contingent upon:

(a) A third party exchange offering the service of converting the cryptocurrency into fiat currency;

(b) The holder of the cryptocurrency entering into a contract with a third party exchange at the applicable exchange rate, to exchange the cryptocurrency for fiat currency;

(c) A positive exchange rate at the time of exchange; and

(d) The blockchain confirmation that created the cryptocurrency entry in the digital wallet in question not reversing itself prior to the exchange (due to an orphaned block, a decision by developers to prefer an

alternative blockchain, or a 51% attack. We note that the contingencies here are also contingent upon third party conduct, namely the developers and the data miners that control the network).

Issue 1(d)(iii) separate trust for each Account Holder? Once trust for all Account Holders? Multiple Trusts for specific groups?

Summary:

110. Counsel for the Potential Trust Beneficiaries submits that one trust arises for each cryptocurrency, with all parties with a positive coin balance of that cryptocurrency being co-beneficiaries of the trust.[125]

111. Counsel for the Creditors rejects that any trust arises,[126] and does not make any submissions on this point.

112. The liquidators submit that:

(a) If any trust arises, the amendment of Cryptopia's terms on 7 August 2018 (the "**Amended Terms**") was a variation of the terms of trust.[127]

(b) The stipulated method of acceptance of the Amended Terms is continued use of Cryptopia's Services from the date of amendment.[128]

(c) Account Holders who did not continue to use Cryptopia's Services after 6 August 2018 have not complied with the stipulated method of acceptance of the Amended Terms, and therefore are not contractually bound by those terms. The legal relationship between these Account Holders and Cryptopia would have continued to be governed by the earlier set of terms (the "**Historic Terms**"), first introduced by Cryptopia in 2016, after the exchange had commenced.[129]

[125] Submissions for the Potential Trust Beneficiaries at [296] to [297].
[126] Submissions for the Creditors at [8.1].
[127] First Ruscoe Affidavit at annexure DIR1.
[128] First Ruscoe Affidavit at annexure DIR1.
[129] Third Ruscoe Affidavit at annexure DIR4 pages 27 to 28.

(d) There is a significant number of Account Holders who fall into this category. The "*All Users*" spreadsheet in the User Summary Excel document shows the "*last log in date*" of each account holder with a positive coin balance of realisable value. There are 536,662 account holders with a positive coin balance of realisable value whose last log in date was prior to 7 August 2018.[130] The sum of the NZD equivalent value of holdings of these account holders is NZD36.8million. This is reflected in this table:

3	Row Labels	Sum of NZD Equivalent	Count of NZD Equivalent2
4	⊞<6/08/2018	$ 36,826,757	536,662
5	⊞2018	$ 24,556,097	195,283
6	⊞2019	$ 109,567,156	228,198
7	Grand Total	$ 170,950,009	960,143

(e) If the Court accepts that the Amended Terms could not have varied the terms of trust of all Account Holders, then a finding that Account Holders are co-beneficiaries of the same trust is unworkable. We note that this inconsistency does not arise with a finding of individual trusts for each Account Holder.

113. The principles for variation of the terms of trust are well established. In the absence of express provision in the trust instrument, a trustee's right to vary can only be exercised when all beneficiaries are sui juris and consent to the variation.[131] The power of amendment contained in a trust instrument must be exercised "*for the purpose for which it was granted*" and "*bona fide and for the benefit of the beneficiaries*". [132]

114. The Historic Terms contained an express term on Cryptopia's ability to vary the terms and conditions:[133]

> **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.

[130] 11,030 account holders had a last log in date of "null". We expect this is because Cryptopia did not track last log in date at the relevant time. To confirm the last date that these users accessed the exchange they were grouped by the "last trade date" or "last withdraw date" or "date registered".
[131] Butler (ed) *Equity and Trusts in New Zealand* (Thomson Reuters, online looseleaf ed) at [62.9.2]; and *Re Philips New Zealand Ltd* [1997] 1 NZLR 93.
[132] Butler (ed) *Equity and Trusts in New Zealand* (Thomson Reuters, online looseleaf ed) at [62.9.3].
[133] Third Ruscoe Affidavit at annexure DIR 4 pages 27 to 28.

115. On 7 August 2018 Cryptopia introduced the Amended Terms.[134] The Amended Terms stipulate that acceptance of the terms is achieved by the Account Holder "*accessing our Platform and/or Services and/or creating an Account*". "*Services*" are defined as "*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), and any Coin Wallet*".

116. This amendment can only have amounted to a valid variation of trust if it was a lawful exercise of an express power of variation in the trust instrument or was consented to by all beneficiaries.[135] There are issues with both approaches:

    (a) Variation in accordance with express power in the trust instrument:

        (i) There is difficulty in accepting that the Historic Terms are a trust instrument. It is alleged that, if any trust came into existence, it would have arisen out of the parties' conduct when Cryptopia first started operating, at which point there were no written terms and conditions.[136] The earliest cached version of the Historic Terms is dated January 2015.[137] This is approximately five months after Cryptopia started operating (the Company was incorporated on 29 July 2014).[138]

        (ii) If it is accepted that the Historic Terms were a trust instrument, there is difficulty in accepting that a valid variation of trust occurred when the Amended Terms were introduced in respect of the Account Holders who did not accept the Amended terms.

        (iii) There is an issue as to whether the variation satisfies the requirement of being "*exercised … for the purpose for which it was granted … [and] [b]ona fide for the benefit of the beneficiaries*" because:[139]

            (1) The Historic Terms do not specify a purpose for the power to vary. Cryptopia has a wide discretion to amend its terms.

[134] First Ruscoe Affidavit at annexure DIR1 at page 2.
[135] *Equity and Trusts in New Zealand, Butler (ed)* (Thomson Reuters, online looseleaf ed) at [62.9.2-3]; and *Re Philips New Zealand Ltd* [1997] 1 NZLR 93 (HC).
[136] Submissions for the Potential Trust Beneficiaries at [291] to [293].
[137] Third Ruscoe Affidavit, DIR4, pages 27 to 28.
[138] Second Ruscoe Affidavit at [4].
[139] Butler (ed) *Equity and Trusts in New Zealand* (Thomson Reuters, online looseleaf ed) at [62.9.3].

(2) Cryptopia's ability to amend its terms is not limited to amendments that are bona fide and for the benefit of its customers. Such a requirement imposes a strong fetter on Cryptopia's ability to amend its terms. For example, amending the terms to increase fees payable on trades would not be bona fide for the benefit of account holders.

(b) Variation consented to by all beneficiaries:

(i) The variation was not consented to by all beneficiaries because certain Account Holders did not accept the Amended Terms.

117. This reasoning also applies to difficulties that would arise with any future variations of the terms of trust, if account holders were co-beneficiaries.

118. If the Court is inclined to make a finding of trust, a finding that individual trusts exist for each Account Holder avoids the above inconsistencies.

Conclusion

119. The liquidators do not take any position on the outcome of issues discussed above, or on the outcome of any of the other issues listed in the Application.

120. The liquidators' only interest is to ensure the Court receives full argument on the issues before it, in order to facilitate the just determination of the Application.

……

Scott Barker/Annie Cao/Maddie Harris

Counsel for the applicant liquidators