



## **The Accounting Treatment of Cryptocurrencies: The Perspective of Current Accounting Standards**

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### **ABSTRACT**

Cryptocurrencies are digital currencies void of any support from regulatory body that is currently in vogue as a medium of exchange and an investment security. This paper examines the accounting treatment for cryptocurrency from the perspective of IFRS and AAOIFI accounting standards and propose actions to standard setters on the best way to treat the Crypto transactions in accounting reports. A proper accounting treatment will allow for a fair reporting of crypto related transactions and facilitate users of financial statements to make objective assessment of this new invention. A content analysis was conducted to review all major accounting standards issued by accounting standards setting bodies for possible accounting treatment for cryptocurrencies. To better understand the issue in practice, an analysis of accounting treatment of cryptocurrencies by 2 companies also was conducted. This study found that there is no suitable accounting standard that could objectively be applied for cryptocurrencies. For example, from the perspective of the current accounting standards, cryptocurrencies match the definition of inventory if it is used as a commodity for broker-trader and intangible asset for others respectively. It is suggested that there an urgent need for the International Accounting Standards Board (IASB) to comprehensively develop accounting standard for cryptocurrency, specifically to develop a specific category for this type of assets to allow a standard treatment for cryptocurrency and fill the gap in the IFRS.

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**Keywords:** Cryptocurrency; Accounting Standards; International Accounting Standard Board; inventory; intangible asset

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## INTRODUCTION

Cryptocurrency is digital or 'virtual' money, which uses cryptography to secure its transactions, to control the creation of additional currency units, and to verify the transfer of assets. Unlike fiat money which is controlled and managed by central banks, Cryptocurrencies use decentralized control mechanism using blockchain technology. There are currently up to 2000 cryptocurrencies and more are being developed (Habib, 2018). Different cryptocurrencies have different characteristics, different issuance and different reasons for acquiring them. Generally, there are two types of cryptocurrency namely mined and non-mined (or purchased) cryptocurrencies. Some examples of mined cryptocurrency are bitcoin, ethereum and litecoin and examples of non-mined cryptocurrency are ripple, stellar and cardano.

Over the last decade, cryptocurrency's enthusiasts have confidently claimed that it will replace physical currency as it offers flexibility with minimum regulatory control. Cryptocurrency is predicted to play major role in online and cross border transactions due to its safety and cost-effective features. The exponential growth (CAGR of 4.7% between 2012 and 2016) of the financial services sector has created interest and demand among market participants for a more efficient currency as medium of exchange and investment instruments (Combes, 2017) facilitated by the rapid advancement and application of Fintech. In fact, FinTech startups' funding has increased at a compound annual growth rate (CAGR) of 41% over the last four years, with over US\$40 billion in cumulative investment (PwC, 2017).

The invention of cryptocurrency by Satoshi Nakamoto in 2008 as a digital money without a central entity makes all accounts and transactions public, and deter same money being used twice. The absence of third party or middle person makes transactions using this platform faster, safe and cheaper (King, 2018). Cryptocurrencies are perceived as fully self-contained systems, where each unit acts like piece of data moving around a network (Leopold, 2016). The system consists of limited entries in a database which no one can change without fulfilling specific conditions. A cryptocurrency like bitcoin consists of a network of peers. Every peer has a record of the complete history of all transactions and thus of the balance of every account. The transaction is known almost immediately by the whole network after it gets confirmed by the miners (Blockgeeks, 2018).

Although cryptocurrency has gained global recognition, its regulation by government varies across various jurisdictions ranging from being permissive to outright ban. In Guangzhou, China, all cryptocurrency promotion has been banned after Baidu, a Chinese technology enterprise was forced to shut down their crypto-based online chat rooms. Russia has also banned all forms of cryptocurrency that is not backed by fiat money (Marinoff, 2018). Despite few obstacles faced by cryptocurrency in South Korea, it is estimated that 25% of global cryptocurrency transactions are in South Korea, and digital coins often sold at higher prices on South Korean exchanges than elsewhere due to their popularity and heightened demand (Marinoff, 2018). According to Coinbase, approximately 18% of US students own cryptocurrency and the popularity keep increasing among the young generation. In fact, a lot of colleges and universities are now offering bitcoin and blockchain-based courses (Marinoff, 2018).

The accounting fraternity, however, is in quandary for not being able to categorize cryptos for purposes of reporting. Currently, no accounting standard within International Financial Reporting Standards (IFRS) reporting structure is able to fit crypto into any of the categorizations available for reporting purposes. Though there is a suggestion to account for cryptocurrencies-based transactions at fair value through profit or loss, but it is incompatible with the requirements of IFRS in most circumstances (Grant Thornton, 2018). In fact, it has become a necessity to develop a proper accounting standard to account for cryptocurrency transactions to be reported in the financial information of mandatory reports.

Though Lee (2015) argued that bitcoin met the economic definition of money as a medium of exchange, unit of account and store in value and therefore to be treated as such for reporting purposes, there is no consensus on this view. In fact, the high volatility of price and value of bitcoin and other cryptocurrencies is affected by current events and is sensitive to manipulation<sup>1</sup> (Lee, 2018). The cryptocurrency crash in 2018 (or termed as the bitcoin crash (Kaplan, 2018<sup>2</sup>) and the Great crypto crash (Patterson, 2018<sup>3</sup>)) is the *prime-facie* evidence that the currency is vulnerable to speculation. The cryptocurrencies lost 80 percent of its value by November 2018 that was worse than the Dot-com crisis.

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<sup>1</sup> Satoshi Nakamoto held 5% of the entire cryptocurrency which value at 5 million USD at that time (Bearman, 2017)

<sup>2</sup> Kaplan, Michael (11 September 2018). "Bitcoin crash: This man lost his savings when cryptocurrencies plunged". CNN. Archived from the original on 12 October 2018.

<sup>3</sup> Patterson, Michael (12 September 2018). "Crypto's 80% Plunge Is Now Worse Than the Dot-Com Crash". Bloomberg. Archived from the original on 11 October 2018.

This paper reviews the literature on how the cryptos are treated by accounting standards based on perceived definition provided by the standards. A proper information disclosure in the financial statements on cryptos facilitate stakeholders to assess the firm's exposure to these transactions and make an objective assessment of their potential exposure on investments in cryptocurrencies.

The paper is structured as follows. Section 2 reviews the literature on accounting treatment of cryptocurrency. Section 3 presents the content analysis of reported financial statements on treatment of cryptos and Sections 4 and 5 present the discussion and conclusion respectively.

## REVIEW OF LITERATURE

The abbreviation "FinTech" or financial technology denotes providing financial services through innovative technologies, which among others, includes cryptocurrency (Dorfleitner et al., 2017). Sovbetov (2018) defines a cryptocurrency as a digital or virtual currency that uses cryptography for security using encrypted algorithms with special software program to create unique hashes that are finite in number which makes it difficult to counterfeit (DeVries, 2016).

Unlike fiat money, cryptocurrency has no central authority to manage it and it is immune to government interference or manipulation (Sovbetov, 2018) and therefore users are able to exchange value digitally without third party oversight (DeVries, 2016). There will be no double spending of cryptocurrency as new transactions are checked against the block chain (ledger of past transactions) to ensure that the same bitcoins or any cryptocurrency have not been previously spent (Dourado, 2014).

Based on these characteristics of cryptocurrencies, Australian Accounting Standards Board (AASB) concluded that digital currencies or cryptocurrency should not be classified as cash under IAS 7 Statement of Cash Flows as it not been widely accepted as currency (Venter, 2016). In addition, Grant Thornton (2018) argued that cryptocurrencies are not readily exchangeable for any goods or services and are subjected to considerable price volatility which does not meet the definition of cash equivalent. Further, AASB stated that the definition of cash is that it must be supported by fiat currency managed by a central bank. PricewaterhouseCoopers (PwC) posited that cryptocurrency is not accounted for as cash due to cryptocurrencies are generally not accepted as legal tender, and are not backed by a government (Currie et al., 2018). Deloitte argued that cryptocurrencies can be used as a medium of exchange if both parties agree to the exchange; however, cryptocurrencies are not backed by a sovereign government and do not represent legal tender that must be accepted as a form of payment thus, it could not be accounted as cash (Uhl et al., 2018).

Chartered Professional Accountants (CPA) Canada pointed out that cryptocurrencies do not match the characteristics of cash equivalent as they do not have short-term life (CPA Canada, 2018). Deloitte in Financial Reporting Alert 18-9 stated that cryptocurrencies are not cash equivalent as they are not readily convertible to known amounts of cash and have more than an insignificant risk of change in value (Uhl et al., 2018). PwC also agrees with this as cryptocurrencies are not investments that are so near their maturity that they have insignificant risk (Currie et al., 2018). AASB argue that the volatility related to exchange traded prices is irrelevant when assessing "insignificant risk of changes in value". It contradicts the standard theory, volatility Does affect prices of assets...unless CRYPTO is not an asset! In other words, the fact that a cash equivalent in a foreign currency is very volatile as an entity's functional currency does not affect its accounting as a cash equivalent (Venter, 2016). Ernst & Young (EY) concurs that cryptocurrencies insignificant change in value could not be related to hyperinflation, just like the hyperinflation in Zimbabwe or Venezuela did not prevent their currencies to be classified as 'cash' (Daniel and Green, 2018). However, the significance of the risk of changes in value of a digital currency can only be assessed with 'cash' existing in the same currency (Venter, 2016). Thus, both AASB and EY conclude cryptocurrency fails to qualify as a cash equivalent.

CPA Canada examined cryptocurrency from the perspective of financial instrument and concluded that a cryptocurrency does not involve any contractual relationship and therefore not a financial instrument, where, the holder does not have any contractual right to receive cash or another financial instruments from another entity, or to exchange financial instruments with another entity (CPA Canada, 2018). Grant Thornton, EY United Kingdom and PwC United States concurs with the CPA Canada's statement. AASB pointed out that although cryptocurrencies are highly liquid, they give no contractual right to receive cash or another financial instruments (Venter, 2016). They also stated a digital currency does not come into existence as a result of a contractual relationship as it is created via a

process called “mining” which involves solving increasingly difficult cryptographic problems and requires progressively more powerful computers for productive mining (Venter, 2016). However, cryptocurrencies may meet the definition of derivatives if there are buy or sell contracts of cryptocurrencies on the future and forward markets (CPA Canada, 2018). Financial Reporting and Assurance Standards (FRAS) Canada in their discussion group report also mentioned there is a possibility for cryptocurrencies to be a financial asset if it is converted to fiat currency (FRAS Canada, 2018).

Grant Thornton explores the possibilities of cryptocurrencies being an investment property that is being held for investment purpose. Although cryptocurrencies partially met the definition of investment property as they are held for capital appreciation, but current accounting standards do not classify cryptos as investment property as they are not physical assets (Grant Thornton, 2018). CPA Canada also agreed that cryptocurrency is not an investment property and therefore should not be accounted for as investment property under IAS 40 (CPA Canada, 2018). AASB considered cryptocurrency as intangible asset because it does not have a physical substance and exist digitally. IAS 38 defines intangible asset identifiable, an asset, non-monetary and without physical substance and cryptocurrency meet all these requirements (CPA Canada, 2018).

Grant Thornton also declared that cryptocurrencies met the definition of intangible assets as they can be traded and exchanged, non-monetary in nature and does not have physical substance as they are digital currencies (Grant Thornton, 2018). However, CPA Canada also argued that accounting for Cryptocurrencies should not apply the standard for intangible asset which held for sale in the normal course for business and in fact it should be subjected to IAS 2 which is an inventory (CPA Canada, 2018). Cryptocurrencies used as a medium of exchange or for speculative purposes are not classified as inventory (Deloitte, 2018). PwC stated that cryptocurrencies may account as inventory as they are often purchased or mined with the purpose to sell them. However, they are not tangible assets thus do not meet the inventory definition (Currie et al., 2018). Thus, the status of cryptos is still ambiguous as whether it should be accounted as inventory under IAS 2 or intangible asset under IAS 38 (Venter, 2016).

Grant Thornton (2018) explains that the accounting treatment of cryptocurrency as inventory is ambiguous and does not meet the definition of inventory and therefore IAS 2 may be applied subjected to certain conditions involving a business model under which cryptocurrencies are acquired by the reporting entity with the basis of selling them in the near future, and generate a profit from shift in price or broker traders’ margin. Overall, crypto does not fit into the various categories of assets defined in IFRS and therefore there is a need to create a new category for crypto for reporting purposes.

### **Types of Cryptocurrencies**

Most cryptocurrencies are mined using sophisticated cryptographic algorithms. Below are few examples of mined cryptocurrencies.

#### **Bitcoin**

Bitcoin is the first decentralized cryptocurrency created and operated using peer to peer technology with no central authority. This technology and network are used to manage transactions and issuance of bitcoins. Mining creates new bitcoins in each block where, it is the process of adding transaction records to bitcoin's public ledger of past transactions or blockchain.

#### **Ethereum**

Ethereum or Ether is the second cryptocurrency created, is a digital bearer asset and it doesn't require a third party to process the payment. However, it doesn't only operate as a digital currency, it also acts as ‘fuel’ for the decentralized apps within the network. Ethereum is a whole network, with its own Internet browser, coding language and payment system. Most importantly, it enables users to create decentralized applications on Ethereum's Blockchain. In the Ethereum blockchain, miners work to earn Ether, a type of crypto token that fuels the network which created at a rate of 5 Ether per mined block. Mining is also necessary for securing the Ethereum network as it creates, verifies, publishes, and propagates blocks in the Blockchain (Rosic, 2017). Ethereum is mined by providing solutions to challenging math problems and subsequently rewarded for it (Rosic, 2017).

### **Litecoin**

Litecoin is created by Google employee, Charlie Lee. Litecoin is created with a vision to create a lighter version of bitcoin and use as for everyday purposes. Litecoin also target the regular computers which most people already have by using a memory-hard, script-based mining proof-of-work algorithm. In Litecoin, mining is the process by which the Blockchain is maintained. Miners receive transaction data broadcast by the various participants in the network since the last block was found, they assemble those transactions into structures called Merkle trees and they work to find an acceptable hash (Floyd, 2018). As Litecoin is a clone of bitcoin, the mining process of Litecoin is similar to bitcoin but with different Script hash (Floyd, 2018).

### **Purchased cryptocurrency (Not mined)**

Although most cryptocurrencies are mined, there are few that are not and the only way to hold these cryptocurrencies is by purchasing them.

### **Ripple**

Ripples are not mined and it does not have a blockchain. Ripple has its own patented technology which is Ripple protocol consensus algorithm (RPCA). The word 'consensus' in the name means that if every node agrees with all the rest, there is no issue, but if one of them does not agree, nothing will happen. Unlike bitcoin which have no legal owner, Ripple is a company which have a proper organization leader to lead the company. Since Ripple does not involve mining, the only way to obtain Ripple is by purchasing them from trading platforms that provide the buyer with a lot of quantities (Dirar, 2018).

### **Characteristics of Cryptocurrency**

There are many traits of cryptocurrency documented in the literature, namely trusted, immutable, decentralized, free of permission, volatility, not backed by government and central banks. Brief description of these traits are as follows.

#### **Trusted**

Cryptocurrency is based on peer-to-peer verification. When one peer changes the hash, others will be affected. Therefore, the cryptocurrency is fully possessed and controlled by each peer and sent directly to one another without the permission and control of a governing authority.

#### **Immutable**

Cryptocurrency transactions cannot be undone, double-spent, reversed, hidden or altered. All transactions are recorded on Blockchain and it is impossible for anyone to move funds except for the owner of the private key. Therefore, once the money has been sent, it is totally irreversible. Additionally, it is highly difficult to rewrite transactions' history as all are recorded and more blocks are written to the chain once the transactions have been written to the public ledger. However, it is not impossible to change the transaction, but permission and compromise are needed from other peers of the entire network of cryptocurrency.

#### **Decentralized**

Cryptocurrencies are not owned or controlled by anyone or any organization or government. They are decentralized and run on several computers worldwide. As they rely on networks of different components, the system is less likely to fail.

#### **Free of permission**

There is no authority such as banks and government to control the peers, form mining, trading or spending cryptocurrencies. Permission is not needed, and everybody can download the necessary software to do so.

**Volatility**

Prices of cryptocurrency tend to be volatile as it is set by the market which is based on supply and demand (Team, 2017). The price volatility is also due to liquidity which is the amount of cryptocurrency produced and floated through the market (Bradbury, 2018). The cryptocurrency price is based on ongoing interaction of trade between buyers and sellers (Team, 2017).

**Not Backed by Government and Central Banks**

Cryptocurrencies are not backed by the government and central bank, unlike fiat currency. Whether it is bitcoin, or ethereum or others, most government has yet to declare cryptocurrency as a legal tender, only a few acknowledged cryptocurrencies transactions are legal such as Japan (Rooney, 2018). As fiat currency is backed by the government, they have their own value through demand and supply and not necessarily backed by gold or silver.

As cryptocurrency is a new innovation and only started becoming a hype recently, government and regulatory bodies not acknowledge cryptocurrencies as legal and therefore have not introduced any standard or regulation on cryptocurrencies.

**RESEARCH METHODOLOGY**

The content analysis approach was applied to review all related accounting standards for possible accounting treatment of cryptocurrencies. The basic traits of cryptocurrencies are analyzed to ascertain if this digital currency meets the requirements set by the standards and the possibility of reporting in the financial information. Accounting standards for various assets classes issued by the International Accounting Standards Board (IASB) and the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) were reviewed for this purpose.

Since cryptocurrency has no definitive definition, this paper reviews the literature and reports on the accounting treatment of cryptocurrency using IAS 7 for cash and cash equivalent, IFRS 9 for financial instruments, IAS 40 for investment property, IAS 38 for intangible asset and IAS 2 when it is defined as an inventory. None of the accounting standards issued by the AAOIFI are able to provide proper accounting treatment to cryptocurrencies.

Furthermore, to examine current practices in the accounting treatment of cryptocurrencies, the UK cryptocurrency companies licensed by the Financial Conduct Authority (FCA) were analyzed, as presented in Table 1 below<sup>4</sup>. As of December 1st, 2023, a total of 13 companies were licensed by the FCA. In this study, the annual reports or financial statements of these companies were searched online. Only four out of the thirteen have issued annual reports or financial statements online for any one of the financial years from 2020 to 2023.

Table 1 Data Collection

	Count
Total UK companies listed as “ <i>Crypto Companies With An FCA Licence</i> ” <sup>1</sup>	13
Companies without online financial statements (or annual report)	9
Companies available for analysis	4

Note: <sup>1</sup> The crypto companies with an FCA Licence were sourced from <https://www.ccn.com/crypto-register-fca-uk-list-approved-firms/>. FCA stands for Financial Conduct Authority.

To ensure consistency in the accounting treatment and financial disclosures of cryptocurrencies, the practices of cryptocurrency companies in Australia were benchmarked. Out of the 18 blockchain companies and cryptocurrency exchanges listed on <https://www.themartec.com/>, it was found that Digital X Ltd used a different approach, as discussed further in the following section. In this study, three-stage data analysis techniques are adopted, as described below:

1. Interpret relevant accounting standards to comprehensively describe the potential application of recognition and disclosures of cryptocurrency.

<sup>4</sup> It has been observed that numerous small to medium-sized cryptocurrency companies worldwide have not made their financial statements available online.

2. Examine the reporting practices of cryptocurrency in the financial statements of cryptocurrency companies for recognition criteria and disclosures.
3. Cross-examine the relevant provisions in accounting standards (mentioned in no. 1 above) with the reporting practices of cryptocurrency (mentioned in no. 2 above).

## RESULTS AND DISCUSSION

To date, there is no Accounting Standard that guides on how a cryptocurrency should be identified, treated and reported in the financial reports. The analyses are conducted based on each possible accounting treatments under the different standards mentioned earlier.

### Cryptocurrency as Cash or Cash Equivalent

Cryptocurrencies are regarded as digital currency and might be accounted as cash. There is no definition of cash stated by IAS 7. However, IAS 32 'Financial Instruments: Presentation' defined currency (cash) as a financial asset because it represents the medium of exchange and is therefore the basis on which all transactions are measured and recognized in financial statements. A deposit of cash with a bank or similar financial institution is a financial asset because it represents the contractual right of the depositor to obtain cash from the institution or to draw a cheque or similar instrument against the balance in favor of a creditor in payment of a financial liability (Grant Thornton, 2018). Cryptocurrencies, are not well-accepted as cash by the majority and are not ready to be used as a medium of exchange as compared to traditional fiat currencies.

IAS 7 defines cash equivalents as 'short-term, highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value' (Schweizer, 2014). Cryptocurrencies does not have short term life and it is highly volatile that is subjected to significant changes of value. Thus, cryptocurrencies do not meet the characteristics of cash equivalent by IAS 7 and the definition provided by the IFRS and therefore cannot be accounted for as cash or cash equivalent.

### Cryptocurrency as a Financial Instrument

Paragraph 11 of the IAS 32 defines financial instrument as any asset that is cash; an equity instrument of another entity; a contractual right to receive cash or another financial asset from another entity or to exchange financial assets or financial liabilities with another entity under conditions that are potentially favorable to the entity; or a contract that will or may be settled in the entity's own equity instruments and is a non-derivative for which the entity is or may be obliged to receive a variable number of the entity's own equity instruments or a derivative that will or may be settled other than by the exchange of a fixed amount of cash or another financial asset for a fixed number of the entity's own equity instrument. Indeed, cryptocurrencies are not cash, equity instruments or contracts to be settled in equity instruments. Cryptocurrency does not give any contractual rights to the holder to receive cash or another financial asset nor does it give the issuer of cryptocurrency rights or rise in financial liability. Therefore, cryptocurrency do not meet the definition of financial instruments.

To make it concrete, IFRS 9 illustrated that though gold bullion is highly liquid, it does not give contractual right to the holder to receive cash or another financial asset inherent in bullion. Gold bullion is therefore concluded as commodity, not a financial instrument (AASB, 2016). In case of cryptocurrency, mining is done to create or issue it. This mining involves solving cryptographic problems which is difficult and continuously become more difficult. There is no contractual relationship involved in this mining and existence of cryptocurrency. Similar to gold bullion, cryptocurrency may be closer to a commodity rather than a financial instrument. Furthermore, if the entity is a commodity broker-trader who buy or sell commodities for others, it is exempted from the measurement criteria of IAS 2 which is based on lower of cost or net realizable value. These commodity broker-traders will measure cryptocurrencies at fair value less costs to sell. However, this is only allowed if cryptocurrencies are classified as commodity. A commodity is a tangible good that can be exchanged or bought and sold for products of similar value (Moffatt, 2018). For cryptocurrencies to meet the definition of commodity, it needs to have a physical or tangible existence. Although cryptocurrencies are used to exchange or bought and sold for products of similar range of value, it is a non-tangible asset and therefore cannot be classified as commodity.

### **Cryptocurrency as an Investment Property**

IAS 40 defines an investment property as property (land or a building, or part of a building, or both) held (by the owner or by the lessee under a finance lease) to earn rentals or for capital appreciation or both, rather than use it in the production or supply of goods or services or for administrative purposes; or sale in the ordinary course of business (CPA Canada, 2018). Even though purchases of cryptocurrencies are made used for capital appreciation, this digital currency do not qualify as an investment property as defined by IAS 40, it is not land or building nor used in production of goods and services or in an ordinary course of business. The price or value of cryptocurrencies depends on the liquidity of the currency itself which is highly volatile.

### **Cryptocurrency as an Intangible Asset**

Since cryptocurrencies do not have a physical form can it be classified as an intangible asset? IAS 38 defines an intangible asset as an identifiable non-monetary asset without physical substance (Australian Accounting Standard Board, 2016). Identifiable has been defined by IAS 38 as separable and capable of being separated or divided from the entity and sold, transferred, licensed, rented or exchanged, either individually or together with a related contract, identifiable asset or liability, regardless of whether the entity intends to do so; or arises from contractual or other legal rights, regardless of whether those rights are transferable or separable from the entity or from other rights and obligations (Grant Thornton, 2018). Though Cryptocurrencies are identifiable as they are sold in units and can be traded on an exchange or in peer-to-peer transactions they still do not qualify as an intangible asset based on the full list of attributes defined by IAS 38. Monetary assets as defined by IAS 38 is money held and assets to be received in fixed or determinable amounts of money (Grant Thornton, 2018). Our earlier discussion indicated that cryptocurrencies are not cash or an exchange, thus, it can be classified as non-monetary item. IAS 38 also defined asset as a resource controlled by an entity as a result of past events and from which future economic benefits are expected to flow to the entity (AASB, 2016). IAS 38 also clarifies control as the power to obtain the economic benefits that the asset will generate and to restrict the access of others to those benefits (AASB, 2016). Holding of cryptocurrencies enable an entity to sell it or use it as a means of exchange or payment. Thus, those entities will gain economic benefits from it. Furthermore, cryptocurrency is a digital currency which does not have physical substance. Thus, this analysis reveals that cryptocurrency met the criteria of an intangible asset as it is an identifiable non-monetary asset without physical substance.

### **Cryptocurrency as an Inventory**

Even though cryptocurrencies meet the definition of intangible assets, IAS 38 stated that intangible assets which held for sale in the ordinary course of business is accounted as inventories under IAS 2 (see paragraph 3 (a)). Classification of cryptocurrencies as inventory depends on an entity's business model. If the business sells cryptocurrency in their normal course of business, it would be considered as inventory. However, this is not the case for business which use cryptocurrency as a means of payment or exchange or for capital appreciation. Additionally, there is also an issue whether cryptocurrencies should be measured based on a cost model or a revaluation model through other comprehensive income under IAS 38, or based on lower of cost or net realizable value under IAS 2 where in fact cryptocurrencies should be measured at fair value or market value.

Furthermore, if the entity is a commodity broker-trader who buy or sell commodities for others, it is exempted from the measurement criteria of IAS 2 which is based on lower of cost or net realizable value. These commodity broker-traders will measure cryptocurrencies at fair value less costs to sell. However, this is only allowed if cryptocurrencies are classified as commodity. A commodity is a tangible good that can be exchanged or bought and sold for products of similar value (Moffatt, 2018). In order for cryptocurrencies to meet the definition of commodity, it need to have a physical substance for it to be tangible. Although cryptocurrencies are used to exchange or bought and sold for products of similar range of value, it is a non-tangible asset. Therefore, it could not be classified as commodity.

However, under United States Generally Accepted Accounting Principles (US GAAP) as set out in the Master Glossary of the Accounting Standards Codification, a commodity has been defined as products whose units are interchangeable, are traded on an active market where customers are not readily identifiable and are immediately marketable at quoted prices (Digital X Ltd, 2018). Based on this definition, cryptocurrency can be determined as a commodity and therefore could be measured at fair value as the entity is a commodity broker-trader who buy or sell commodities for others.



Table 2 provides summary of possible accounting treatments of cryptocurrency based on the above discussion.

Table 2 Summary of potential accounting treatments of cryptocurrency			
Classification	Criteria	Applicable YES/NO	Explanation
Cash and Cash Equivalent (IAS 7)	1. Currency (cash) is a financial asset because it represents the medium of exchange and is therefore the basis on which all transactions are measured and recognised in financial statements. A deposit of cash with a bank or similar financial institution is a financial asset because it represents the contractual right of the depositor to obtain cash from the institution or to draw a cheque or similar instrument against the balance in favour of a creditor in payment of a financial liability	NO	<ul style="list-style-type: none"> <li>Not a medium of exchange and not ready to be it in the near future due to only a few acknowledge it.</li> <li>Not backed by government and central bank</li> </ul>
	2. Cash Equivalent is short-term, highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value	NO	<ul style="list-style-type: none"> <li>Does not have a short-term life</li> <li>Highly volatile thus often have significant changes in value</li> </ul>
Financial Instruments (IFRS 9)	Financial instrument defined as any contract that gives rise to <ul style="list-style-type: none"> <li>a financial asset of one entity</li> <li>and</li> <li>a financial liability or equity instrument of another entity</li> </ul>	NO	<ul style="list-style-type: none"> <li>Does not give any contractual rights to the holder to receive cash or another financial asset nor does it give the issuer of cryptocurrency rights or rise in financial liability</li> </ul>
	Investment property defined as <ul style="list-style-type: none"> <li>property (land or a building, or part of a building, or both) held (by the owner or by the lessee under a finance lease)</li> <li>to earn rentals or for capital appreciation or both,</li> <li>rather than use it in the production or supply of goods or services or for administrative purposes; or sale in the ordinary course of business</li> </ul>	NO	<ul style="list-style-type: none"> <li>Cryptocurrency is not a physical asset therefore it is not a land or a building</li> </ul>
Investment Property (IAS 40)			
Intangible Asset (IAS 38)	Intangible asset as an identifiable non-monetary asset without physical substance:		
	1. Identifiable has been defined as either: (a) separable and capable of being separated or divided from the entity and sold, transferred, licensed, rented or exchanged, either individually or together with a related contract, identifiable asset or liability, regardless of whether the entity intends to do so; or, (b) arises from contractual or other legal rights, regardless of whether those rights are transferable or separable from the entity or from other rights and obligations	YES	Cryptocurrencies are identifiable as they are sold in units and can be traded on an exchange or in peer-to-peer transactions
	2. There is no definition for Non-Monetary asset but monetary asset is money held and assets to be received in fixed or determinable amounts of money	YES	Cryptocurrencies are not cash or an exchange, thus it is classified as non-monetary asset.
	3. Asset as a resource controlled by an entity as a result of past events and from which future economic benefits are expected to flow to the entity	YES	Holding of cryptocurrencies enable an entity to sell it or use it as a means of exchange or payment. Thus, those entities will gain economic benefits from it
Inventory (IAS 2)	4. Without physical substance	YES	Cryptocurrency is a digital currency which does not have physical substance
	IAS 38 stated intangible assets which held for sale in the ordinary course of business will not fall under IAS 38, but accounted as inventories under IAS 2	NO	Cryptocurrencies are not mainly used for the ordinary course of business (trades with cryptocurrencies) but used it for capital appreciation or use as a means of exchange. However, if the entity is a commodity broker-trader who buy or sell commodities for others, then the cryptocurrencies can be accounted as inventories.
Commodity	United States Generally Accepted Accounting Principles (US GAAP) as set out in the Master Glossary of the Accounting Standards Codification, a commodity has been defined as products whose units are interchangeable, are traded on an active market where customers are not readily identifiable and are immediately marketable at quoted prices	YES	Cryptocurrencies are interchangeable. It is also traded on an active market where customers are anonymous, and it is instantly marketable at quoted prices.

## AAOIFI's Treatment of Cryptocurrency

The Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) is an independent industry body dedicated to the development of international standards applicable for Islamic financial institutions (IFIs). The AAOIFI standards are based on Islamic financial contracts such as *Murabaha* (Cost-Plus) financing, *Mudharabah* (Profit Sharing) financing, Zakat and others. Our analysis of the Financial Accounting Standards (FAS) of the AAOIFI reveals that there are no standards in AAOIFI to address accounting for cryptocurrency.

AAOIFI defines an asset as a resource controlled by an Islamic Financial Institution (IFI) whether financed by owners or its investment accountholders, as a result of a past transaction, event or condition which provides the IFI an enforceable right over the resource and gives it an economic benefit, present or future. Cryptocurrency seems to fit with AAOIFI's definition of asset provided it is controlled by IFI. Based on this definition, it is difficult to define cryptocurrency as an asset.

## Reporting Practices of Cryptocurrency

This section reports reporting practices by firms that hold cryptocurrency. An analysis of financial statements of firms that hold cryptocurrency showed inconsistent reporting practices. Few companies reported it as intangible asset while other reported it as inventories. In this paper, we used financial statements issued by Bitstamp Limited and Digital X Ltd to illustrate their reporting practices on cryptos.

Bitstamp Limited's accounting policy stated that cryptocurrency as indefinite life intangible assets with indefinite useful life due to no expiry date or no foreseeable limit to the period of which it will be exchanged with counterparty. Cryptocurrency is recognized at cost of acquisition less accumulated amortization and impairment. On disposal of cryptocurrency, it will be de-recognized by matching the net disposal proceeds and the carrying amount of the asset to determine the gains or losses (Bitstamp Ltd, 2022). The same approach is applied by Revolut Ltd as shown in Figure 3a, 3b and 3c.

Digital X Ltd is a broker-trader of bitcoin and other cryptocurrencies and thus the cryptocurrencies are accounted as commodities (see Figure 2a and Figure 2b). As commodity broker-trader, the company can measure their commodities at fair value less costs to sell, with any changes being recognized in profit or loss. Digital X measured their cryptocurrencies at fair value using the quoted price in United States dollars on the Coin Market Cap (Digital X Ltd, 2018, 62).

<b>Balance Sheet</b>			
As at 31 December 2022			
<b>ASSETS</b>	<b>Note</b>	<b>2022</b>	<b>2021</b>
		<b>EUR</b>	<b>EUR</b>
<b>Fixed assets</b>			
Intangible assets	12	1,845,314	10,404,002
Tangible assets	13	20,396	211,201
Investments	14	68,258,054	58,922,063
<b>Total Fixed assets</b>		<b>70,123,764</b>	<b>69,537,266</b>
<b>Current assets</b>			
Debtors	15	46,404,512	17,800,362
Cash at bank and in hand	16	11,853,843	40,449,908
Restricted cash	16	229,934,779	1,216,655,262
<b>Total Current assets</b>		<b>288,193,134</b>	<b>1,274,905,532</b>
<b>Creditors: Amounts falling within one year</b>	17	<b>(249,751,267)</b>	<b>(1,228,412,565)</b>
<b>Net Current assets</b>		<b>38,441,867</b>	<b>46,492,967</b>
<b>Total assets less current liabilities</b>		<b>108,565,631</b>	<b>116,030,233</b>
<b>Provisions for Liabilities</b>	18	<b>(2,554,542)</b>	<b>(2,405,666)</b>
<b>Net assets</b>		<b>106,011,089</b>	<b>113,624,567</b>
<b>Capital &amp; reserves</b>			
Called up share capital	19	(1,745)	(1,745)
Share premium reserve		(8,451,063)	(8,451,063)
Profit & Loss Account		(97,558,281)	(105,171,759)
<b>Total Equity</b>		<b>(106,011,089)</b>	<b>(113,624,567)</b>

Source: <https://s3.eu-west-2.amazonaws.com/document-api-images-live.ch.gov.uk/docs>

Figure 1a: Statement of Financial Position of Bitstamp Limited

**NOTE 12 – INTANGIBLE ASSETS**

	Licensed & acquired technologies EUR	Own Cryptocurrencies EUR	Total EUR
<b>Acquisition cost</b>			
As at 1 January 2022	2,145,875	10,397,019	12,542,894
Additions	-	2,052,683	2,052,683
Transfer to Loan	-	(1,071,227)	(1,071,227)
Disposals	-	(9,592,713)	(9,592,713)
<b>As at 31 December 2022</b>	<b>2,145,875</b>	<b>1,785,762</b>	<b>3,931,637</b>
<b>Accumulated amortisation</b>			
As at 1 January 2022	(844,443)	-	(844,443)
Charge for the year	(292,546)	-	(292,546)
<b>As at 31 December 2022</b>	<b>(1,136,989)</b>	<b>-</b>	<b>(1,136,989)</b>
<b>Impairment</b>			
As at 1 January 2022	-	(1,294,449)	(1,294,449)
Charge for the year	-	(764,303)	(764,303)
Transfer to Loan	-	49,222	49,222
Reversal of impairment	-	1,060,196	1,060,196
<b>As at 31 December 2022</b>	<b>-</b>	<b>(949,334)</b>	<b>(949,334)</b>
<b>Carrying amount</b>			
As at 1 January 2022	1,301,432	9,102,570	10,404,002
<b>As at 31 December 2022</b>	<b>1,008,886</b>	<b>836,428</b>	<b>1,845,314</b>

During 2022, there was a disposal of own portfolio of cryptocurrencies. The assets concerned had previously been impaired and therefore, upon the disposal the associated impairments were reversed.

In addition, during 2022 a loan of cryptocurrency was advanced to a customer and so the associated net book value of the cryptocurrency loan was reclassified as a loan receivable.

As at 31 December 2022 the fair market value of own cryptocurrencies held as intangible assets amounts to EUR 878,891 (2021: EUR 31,588,273).

Source: <https://s3.eu-west-2.amazonaws.com/document-api-images-live.ch.gov.uk/docs>

Figure 1b: Extract Notes to the Account of Bitstamp Ltd

**g) Intangible assets**

Intangible assets are recognised at their cost of acquisition less accumulated amortisation and any impairment. Intangible assets are composed of software acquired for the Company's internal use as well as cryptocurrencies held by the Company.

The useful lives of intangible assets are assessed as either finite or indefinite.

Intangible assets with finite lives are amortised over their useful economic life and assessed for impairment whenever there is an indication that the intangible assets may be impaired. The amortisation period and the amortisation method for an intangible asset with a finite useful life are reviewed at least at the end of each reporting period.

The intangible assets with indefinite useful lives are not amortised, but are tested for impairment annually, either individually or at the cash-generating unit level. The Company recognises its own cryptocurrencies as intangible assets with indefinite useful life as the Company determined that they do not have an expiry date nor have a foreseeable limit to the period of which they will be exchanged with a willing counterparty for cash or goods and services.

Gains or losses arising from derecognition of an intangible asset are measured as the difference between the net disposal proceeds and the carrying amount of the asset are recognised in the Profit and Loss Account when the asset is derecognised.

Amortisation is charged so as to write off the cost of assets over their estimated useful lives, as follows:

<u>Asset class</u>	<u>Amortisation period</u>
Licensed and acquired technologies	4-7 years
Cryptocurrencies	Indefinite (no amortisation)

Source: <https://s3.eu-west-2.amazonaws.com/document-api-images-live.ch.gov.uk/docs>

Figure 1c: Extract Notes to the Account of Bitstamp Ltd

CONSOLIDATED STATEMENT OF FINANCIAL POSITION				
	Note	Year ended 30 June 2021 \$AUD	(Restated) Year ended 30 June 2020 \$AUD	(Restated) 1 July 2019 \$AUD
<b>CURRENT ASSETS</b>				
Cash and cash equivalents	D3	10,369,645	3,975,690	7,496,623
Trade and other receivables	C2	158,825	196,946	240,379
Digital assets	D4	32,479,969	6,862,193	10,336,075
Contract assets	C2	8,335,434	-	-
Other current assets		104,021	104,535	146,705
<b>Total Current Assets</b>		<b>51,447,894</b>	<b>11,139,364</b>	<b>18,219,782</b>
<b>NON-CURRENT ASSETS</b>				
Investments	D5	2,471,036	1,496,960	752,922
Investments – Equity accounted		-	-	23,618
Property, plant and equipment	E1	148,339	330,680	432,146
Right of use asset	E2	239,283	424,241	-
Intangible assets	E3	268,772	-	-
<b>Total Non-Current Assets</b>		<b>3,127,430</b>	<b>2,251,881</b>	<b>1,208,686</b>
<b>TOTAL ASSETS</b>		<b>54,575,324</b>	<b>13,391,245</b>	<b>19,428,468</b>

Source: <https://company-announcements.afr.com/asx/>

Figure 2a: Extract Statement of Financial Position of Digital X Ltd

D4 - DIGITAL ASSETS	
<p><b>Digital Assets</b></p> <p>Digital assets are assets such as Bitcoin and Ethereum, which use an open-source software-based online system where transactions are recorded in a public ledger (blockchain) using its own unit of account. Digital Assets are an emerging technology and asset class, and as such there are no specific accounting standards that cover the treatment, rather digital assets are assessed by applying existing accounting standards in conjunction with guidance released by the accounting standard setting bodies such as the IASB.</p> <p>Management consider it appropriate to group digital assets into a single balance in the Consolidated Financial Statements and providing users with a reconciliation by category in the notes to the Financial Statements.</p> <p>For the purpose of fair value disclosures, the Group has determined classes of assets and liabilities on the basis of the nature, characteristics and risks of the asset or liability and the level of the fair value hierarchy as explained below.</p> <p><b>Digital Assets – Accounted for using inventory methodology</b></p> <p>For digital assets that meet the criteria of AASB102: Inventory, the Group measures digital assets at its fair value less costs to sell, with any change in fair value less costs to sell being recognised in profit or loss in the period of the change. Amounts are derecognised when the Group has transferred substantially all the risks and rewards of ownership. As a result of the various blockchain protocols, costs to sell are immaterial in the current period and no allowance is made for such costs.</p> <p>Digital assets are derecognised when the Group disposes of the inventory through its trading activities or when the Group otherwise loses control and, therefore, access to the economic benefits associated with ownership of the digital asset.</p> <p><b>Digital Assets – Accounted for using intangible asset methodology</b></p> <p>The Group consider that any digital asset that does not fall under the inventory or financial asset methodology and meet the recognition criteria (identifiable, controllable and capable of generation future economic benefits) are considered to intangible assets.</p> <p>For digital assets that meet the criteria of AASB138: Intangible Assets, the Group measures digital assets at its fair value less costs to sell in accordance with the revaluation model (provided there is an active market), with increase in fair value being recognised in OCI and credited to a revaluation reserve, unless it reverses a revaluation deficit of the same asset previously recognised in profit or loss. A revaluation deficit is recognised in profit or loss, except to the extent that it offsets an existing surplus on the same asset recognised in the revaluation reserve. Digital assets classified as intangible assets are considered to be indefinite life intangible assets given their nature.</p>	<p>Digital assets are derecognised when the Group disposes of the asset or when the Group otherwise loses control and, therefore, access to the economic benefits associated with ownership of the digital asset.</p> <p><b>Digital Assets – Accounted for using financial asset methodology</b></p> <p>Refer to <a href="#">Note D2</a> for financial asset accounting policy and treatment.</p> <p><b>Estimates &amp; Judgements</b></p> <p>(a) <b>Digital assets</b></p> <p>Management note that the topic of digital assets and the accounting for digital assets continues to be considered by the International Accounting Standards Board (IASB) and continues to monitors new comments and interpretations released by the Board and other standard setters from around the world.</p> <p>In line with this, the Group has considered its position for the year ending 30 June 2021 and has determined that the Group's digital assets fall into 3 categories:</p> <ul style="list-style-type: none"> <li>Inventory method (historical method used by the Group)</li> <li>Intangible asset method (the method noted by the IASB in its most recent deliberations)</li> <li>Financial asset method (used where the digital asset meets the criteria of a financial asset – See Note D2)</li> </ul> <p>Management notes that under the 3 methods noted above, the treatment continues to be to measure digital assets at fair value (unless otherwise disclosed and provided certain conditions are met) under the respective accounting standards.</p> <p>(b) <b>Fair value of Digital Assets</b></p> <p>Digital assets (including bitcoin inventory) is measured at fair value using the quoted price in United States dollars on from a number of different sources with the primary being Coin Market Cap (<a href="http://www.coinmarketcap.com">www.coinmarketcap.com</a>) at closing Coordinated Universal Time. Management considers this fair value to be a Level 1 input under the AASB 13 <i>Fair Value Measurement</i> fair value hierarchy as the price on the quoted price (unadjusted) in an active market for identical assets.</p> <p>Management uses a number of exchanges including Binance, Bitgo, Independent Reserve and others in order to provide the Group with appropriate size and liquidity to provide reliable evidence of fair value for the size and volume of transactions that are reasonably contemplated by the Group.</p> <p>Unlisted digital assets are fair valued using a combination of Level 2 and Level 3 techniques. Refer to the table below for the break-down of fair value levels.</p>

Source: <https://company-announcements.afr.com/asx/>

Figure 2b: Extract Notes to the Account of Digital X Limited

<b>Consolidated Statement of Financial Position</b>				
As at 31 December 2021				
	Note	31 December 2021 £000	31 December 2020 (restated) £000	1 January 2020 (restated) £000
<b>Assets</b>				
<b>Current assets</b>				
Cash and cash equivalents	20	7,052,609	5,055,023	2,462,986
Financial assets at FVOCI	18	1,236,481	-	-
Investment in commodities at FVTPL	19	66,356	50,366	-
Trade and other receivables	16	206,880	153,242	209,825
Inventories	15	7,396	11,282	13,042
Current tax assets		7,291	3,856	1,693
Loans and advances to customers	17	4,870	415	-
Derivative financial assets	29	9,294	121	-
<b>Total current assets</b>		<b>8,591,177</b>	<b>5,274,305</b>	<b>2,687,546</b>
<b>Non-current assets</b>				
Property, equipment and right-of-use assets	13	25,128	37,497	38,424
Intangible assets	12	721	411	93,927
Loans and advances to customers	17	12,946	961	-
Deferred tax assets	11	1,783	345	42
<b>Total non-current assets</b>		<b>40,578</b>	<b>39,214</b>	<b>132,393</b>
<b>Total assets</b>		<b>8,631,755</b>	<b>5,313,519</b>	<b>2,819,939</b>
<b>Liabilities and equity</b>				
<b>Current liabilities</b>				
Trade and other payables	22	165,248	143,663	203,830
Loans at amortised cost	24	122	81,812	972
Customer liabilities	21	7,361,196	4,637,230	2,367,200
Current tax liabilities		9,374	1,670	-
Lease liability		5,161	5,985	3,593
Derivative financial liabilities	29	2,454	1,970	-
<b>Total current liabilities</b>		<b>7,543,555</b>	<b>4,872,330</b>	<b>2,575,595</b>

Source: <https://www.revolut.com/>

Figure 3a: Statement of Financial Position of Revolut Ltd

4.12 **Intangible assets**

**Cryptocurrencies**

**Pre-27 July 2020**

Prior to 27 July 2020, the legal and beneficial ownership of the cryptocurrencies were held by Revolut Ltd, and they were determined to meet the definition of cryptocurrencies included in the FCA policy statement issued on 22 July 2019 and were recognised on the Group's Statement of Financial Position applying the following accounting policy.

There remains limited guidance in respect of the treatment of cryptocurrencies under IFRS.

The International Financial Reporting Interpretations Committee ("IFRIC" or "the Committee") reached an agenda decision in June 2019 in respect of the recognition and measurement of cryptocurrencies under IFRS. The agenda paper "Holdings of Cryptocurrencies" concluded that where cryptocurrencies are not held for sale in the ordinary course of business an entity applies IAS 38 (Intangible Assets). Consistent with the tentative agenda decision of March 2019, the Committee concluded that cryptocurrencies do not meet the criteria of financial assets, or cash and cash equivalents.

Therefore, in the absence of a specific standard, the Group recognised its cryptocurrencies as intangible assets.

The cryptocurrencies that the Group held are subject to significant trading volume on a number of cryptocurrency exchanges, including trading to and from fiat currencies, and therefore an active market had been identified for all the cryptocurrencies held by the Group.

Therefore, up to 27 July 2020 cryptocurrencies were recognised at fair value using the revaluation model under IAS 38. Any revaluation gains and losses above the assets' original cost were recognised in other comprehensive income, with the revaluation gains and losses below the assets' original cost being recognised in profit or loss. The corresponding fair value movements on the customer liability were recognised in profit or loss as set out in accounting policy 4.21 below.

The Group's cryptocurrencies, subject to annual review, were considered to have indefinite lives and as such were not subject to amortisation.

**Post-27 July 2020**

On 27 July 2020, the contractual arrangements with the Group's customers were amended such that from that date Revolut Ltd is acting as an agent and nominee on behalf of the customer to facilitate the purchase of cryptocurrencies in the customer's name. As a result, the customer holds the beneficial interest in the cryptocurrencies and therefore is subject to the risks and rewards of the asset. As Revolut Ltd is no longer exposed to the risks and rewards of the cryptocurrencies, they have been derecognised from the Group's statement of financial position, along with the corresponding liability to the customer in relation to the assets.

**Intangible assets acquired separately - Computer software**

Computer software is stated at cost less accumulated amortisation and accumulated impairment losses. Computer software is amortised on a straight-line basis over its estimated useful life, which is assessed to be 3 years.

**Intangible assets acquired in the business combination**

Intangible assets acquired in a business combination and recognised separately from goodwill are recognised initially at their fair value at the acquisition date (which is regarded as their cost).

Subsequent to initial recognition, intangible assets acquired in a business combination are reported at cost less accumulated amortisation and accumulated impairment losses, on the same basis as intangible assets that are acquired separately.

**Derecognition of intangible asset**

An intangible asset is derecognised on disposal, or when no future economic benefits are expected from use or disposal. Gains or losses arising from derecognition of an intangible asset, measured as the difference between the net disposal proceeds and the carrying amount of the asset, are recognised in profit or loss when the asset is derecognised.

Source: <https://www.revolut.com/>

Figure 3b: Extract Notes to the account of Revolut Ltd

12. Intangible assets			
Group	Crypto currencies £000	Purchased software £'000	Total £000
<b>Cost</b>			
At 1 January 2020 (restated)	132,311	590	132,901
Additions	338,026	6	338,032
Disposals	(470,337)	-	(470,337)
Foreign exchange movements	-	5	5
<b>At 31 December 2020 (restated)</b>	<b>-</b>	<b>601</b>	<b>601</b>
At 1 January 2021	-	601	601
Additions	-	7,736	7,736
Disposals	-	-	-
Foreign exchange movements	-	-	-
<b>At 31 December 2021</b>	<b>-</b>	<b>8,337</b>	<b>8,337</b>
<b>Accumulated amortisation and impairment losses</b>			
At 1 January 2020 (restated)	(38,961)	(13)	(38,974)
Charge for the year	77,620	(174)	77,446
Disposals	(38,659)	-	(38,659)
Foreign exchange movements	-	(3)	(3)
<b>At 31 December 2020 (restated)</b>	<b>-</b>	<b>(190)</b>	<b>(190)</b>
At 1 January 2021	-	(190)	(190)
Charge for the year	-	(7,426)	(7,426)
Disposals	-	-	-
Foreign exchange movements	-	-	-
<b>At 31 December 2021</b>	<b>-</b>	<b>(7,616)</b>	<b>(7,616)</b>
<b>Carrying amount</b>			
<b>At 31 December 2021</b>	<b>-</b>	<b>721</b>	<b>721</b>
At 31 December 2020 (restated)	-	411	411
At 1 January 2020 (restated)	93,350	577	93,927

Source: <https://www.revolut.com/>

Figure 3c: Extract Notes to the account of Revolut Ltd

### Proposed Action

As discussed above, the generation and trading of cryptocurrencies are not regulated by any authority or regulatory body. Similarly, accounting of this digital currency is not guided by any accounting standard or guideline by accounting bodies. As a result, it is difficult to classify cryptocurrency into established asset class categories as defined by the existing accounting standards. The accounting practice has tried to 'fix and match' cryptocurrency with related accounting standards namely intangible assets and commodity in accounting and reporting the assets, which we have showed the dissimilarities and inconsistencies between cryptocurrency and the related assets in the above sections. Further, the trading of cryptocurrency is done privately via blockchain technology, where, transactions are recorded into blocks and time-stamped that is available online to related parties in the transactions. The records are permanent and cannot be erased, altered or amended as they are available online to parties involved in the transactions. Besides the self-proclaimed 'high security', crypto market has experienced several episodes security breaches such hacking and manipulation that resulted in billion dollars of losses to investors. Due to its unique features, we recommend the following measures with the aim of increasing risk mitigation to protect stakeholders' interests in their dealings with cryptocurrency:

- (i) Due to its unique features, cryptocurrency does not share any characteristics of other assets such as plant, property and equipment, financial instruments, intangible assets, inventory and cash. Any effort to link cryptocurrency with the other established asset classes would not be helpful and may result in user's misunderstanding on financial information presented. The following suggestions are made to facilitate a proper categorization and reporting of cryptos, the regulatory bodies especially the central bank to play the role as an oversighting body on cryptocurrency issuance and

trading to make sure that the market is well-regulated to avoid any manipulation or speculation or discrimination by holders or owner investor.

- (ii) The regulatory bodies should properly and carefully define the cryptocurrency's key characteristics and to impose some form of contractual relationship between the issuer and subscribers as well as between sellers and buyers of the cryptocurrencies. The contractual relationship should be done online and the regulatory bodies should create a database for all players to deposit their details that become input to the contract between parties.
- (iii) To properly document the contractual relationship between related parties in cryptocurrency dealings and the involvement of regulatory body as monitoring body would enhance cryptocurrency credibility, which in turn help the accounting regulatory body to devise a proper standard for digital assets.
- (iv) Since there are online markets for cryptocurrency and it is traded on real time basis, cryptocurrency could be classified as current asset. On the other hand, holders that intended to keep it over a longer time period of more than 12 months, it should be classified as a non-current asset.
- (v) Cryptocurrency issuers (operators) and trading platform should be licensed by the regulatory body to avoid scamming or illegal activities. The licensing process should be based on credibility of the issuers, certain amount of capital as a safety feature and policy and procedure adopted by the issuers/trading platform.
- (vi) Cryptocurrency issuers should be required to make yearly statutory declaration on their activities by making semi-annual or annual filing with the regulatory body on the business transactions. This will help the monitoring of illegal, terrorist and harmful activities.

The above proposed actions could enhance the monitoring activities of issuers and traders of cryptocurrency. Any illegal, terror and harmful activities could be monitored and countered in timely manner. Also, market manipulation and/or excessive speculation could be monitored in a more effective manner.

## CONCLUSION AND RECOMMENDATION

Cryptocurrency is a digital currency intended as a means of exchange. It is not government or central bank backed and deemed as unsecured. Most cryptocurrencies use the Blockchain technology that is safe and secured and based on peer to peer verification. Furthermore, the market value is based on the liquidity of the cryptocurrencies. It is created by the miners where they solve cryptographic problems or puzzles which increasingly become difficult while some of them are not even mined.

An analysis of cryptocurrencies from the perspective of accounting standards (both IFRS and AAOIFI) suggests no-fit between cryptocurrency with definitions of many asset classes in these standards. Though cryptocurrency features fulfilled the recognition criteria under IAS 38: Intangible Assets, cryptocurrency characteristics failed to satisfy the definition of intangible assets as set out in Paragraph 9 of IAS 38. The standard categorically defined intangible assets as 'expend resources, or incur liabilities, on the acquisition, development, maintenance or enhancement of intangible resources such as scientific or technical knowledge, design and implementation of new processes or systems, licenses, intellectual property, market knowledge and trademarks (including brand names and publishing titles)'. Further, the standard illustrated common examples of intangible assets are 'computer software, patents, copyrights, motion picture films, customer lists, mortgage servicing rights, fishing licenses, import quotas, franchises, customer or supplier relationships, customer loyalty, market share and marketing rights. Thus, cryptocurrency is not an intangible asset.

Furthermore, cryptocurrency is said to fulfil the US GAAP guidance on commodity, but, it failed to satisfy the general definition of inventory as set out in IAS 2. Therefore, there is a need for an exclusive accounting standard for cryptocurrencies. The standard should clearly define the cryptocurrency based on it types as discussed in section 2.0 above such as mined and non-mined cryptocurrency. Recognition and measurement criteria based on types of cryptocurrency in the pre- and post-acquisition phases should be clearly spelled out. The standard should determine on accounting of related transaction costs, valuation model, market price movement and, assets impairment and recoverability of carrying amount. Finally, the standard should outline disclosure and presentation of the asset in financial statements.

This paper highlights the fact that cryptocurrency is a new unique asset class that does not fit into any categories defined by established accounting standards. It is timely for the regulatory bodies to step in to regulate the market to avoid any harmful activities that detriment the cryptocurrency holders' interests. Some form of contractual relationship between parties should be instituted. Also, accounting standard setters should create an exclusive accounting standard for cryptocurrency. The standard should at least cover the mined and non-mined cryptocurrencies. These efforts could instill credibility of the market and avoid harmful activities in the interests of cryptocurrency holders.

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