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Cryptocurrencies: Do they qualify as “gross income”?

Summary

This article argues that, for purposes of the *Income Tax Act 58 of 1962*, Bitcoin and cryptocurrencies operating in a like manner are incorporeal property with a comparable value in real currency. The fundamental basis for the advancement of the hypothesis that such cryptocurrencies give rise to protectable proprietary rights are: (i) the rights exist digitally in cyberspace; (ii) the rights have value to their users; (iii) the rights are capable of being owned as cyberproperty; (iv) the rights can be transferred electronically by a possessor of a unique public-private cryptography protected keypair, and (v) the rights can be proved by entries in a digital ledger that records the historical chain of ownership transfers. This article argues further that the average, fair market value of the cryptocurrency in South African Rands on the date of its receipt or accrual as a revenue asset must be included in a taxpayer’s gross income. It is further argued that this value ought to be the average price of the cryptocurrency determined with reference to at least two pricing indices commonly used or accepted in the marketplace.

1. Introduction

Prior to World War II, a radio system, telegraph, telephone and postal service were among the primary modes of communication. After the war, technological innovation and advancement changed the way in which people communicated and transacted with each other. In 1971, email was created;¹ in 1975, personal computers were introduced,² and, in 1991, the worldwide web was established.³ Presently, wireless communication via, for example, smartphones, laptops, tablets and Bluetooth technology is widely used for interaction on social media platforms such as Facebook and Twitter, as well as for trading on internet sites such as amazon.

- 1 Peter “History of the internet”, <http://www.nethistory.info> (accessed on 12 April 2019).
- 2 Knight “Personal computer history”, <http://lowendmac.com/2014> (accessed on 12 April 2019).
- 3 Bryant “20 years ago today, the World Wide Web opened to the public”, <https://thenextweb.com/insider/2011/08/06/20> (accessed on 12 April 2019).

com and takealot.com.⁴ Recognising the need for the law to keep pace with the evolution in communication systems, particularly in light of the increased digitisation of South Africa and its economy, Parliament enacted, *inter alia*, the *Telecommunications Act* 103 of 1996 and the *Electronic Communications and Transactions Act* 25 of 2002 (ECTA). Other statutes also deal with electronic communication, albeit indirectly.⁵ The development of modern modes of communication has also resulted in courts being confronted with legal disputes arising from the use of technology related thereto, or concerning rights arising therefrom.⁶

The internet is a modern-day frontier for economic activity. In this sphere, where goods and services are traded, secure payment methods such as via PayPal⁷ are utilised rather than conventional ones such as through bank transfers and bills of exchange. In this electronic ecosystem, virtual currencies (VCs) are used as digital money for payment of goods and services. Examples include Q Coin, World of Warcraft Gold, Webmoney and Bitcoin. The South African Reserve Bank (SARB)⁸ defines a VC as: “a digital representation of value that can be digitally traded and functions as a medium of exchange, a unit of account and/or a store of value, but does not have legal tender status”.⁹

4 For a discussion of electronic commerce, see Christin “Travelling the Silk Road: a measurement analysis of a large anonymous online marketplace”, <https://www.andrew.cmu.edu/user/nicolasc> (accessed on 12 April 2019).

5 For example, the *Tax Administration Act* 28/2011 (TAA) (i) permits delivery of documents to electronic addresses (sec. 251(d), sec. 252(d)) and (ii) permits tax returns to be submitted electronically and for the South African Revenue Service (SARS) to issue rules regulating electronic communication (sec. 255).

6 See, for example, *Makate v Vodacom (Pty) Ltd* 2016 4 SA 121 (CC), dealing with rights to Vodacom’s “Please Call Me” service; *H v W* 2013 2 SA 530 (GSJ), dealing with defamation arising from comments published on Facebook; *CMC Woodworking Machinery (Pty) Ltd v Pieter Odendaal Kitchens* 2012 5 SA 604 (KZD), dealing with service of court notices and pleadings by publication on the internet.

7 PayPal is an e-commerce service that permits users to transfer money online as payment for things traded over the internet without sharing financial information. Users effect payment by way of a credit or debit card, or through bank accounts. See <https://www.techopedia.com/definition/1564/paypal> (accessed on 14 April 2019).

8 South African Reserve Bank 2014. “Position Paper on virtual currencies”, 2, <http://www.resbank.co.za> (accessed on 13 April 2019). The Internal Revenue Service (IRS) of the United States of America defines VCs similarly to the South African Reserve Bank. See Internal Revenue Service “Notice 2014-21”, 1, <https://www.irs.gov/pub/irs-drop/n-14-21.pdf> (accessed on 01 April 2019).

9 Nieman (2015:1981) explains: “VCs, similarly, are a proxy for value, can take on a variety of forms and are seeing use across the payment landscape (including air miles, credit card points, retail loyalty or reward points, coupons, bitcoins, litecoins, altcoins, free applications (“apps”) and content, game-based and in-app VC purchases). Even time and personal data, when bartered to receive something in return, can be seen as VCs.”

Unlike fiat currency¹⁰ such as the South African Rand that is issued and backed by the SARB, VCs are presently unregulated in South Africa and are not official tender issued under the *South African Reserve Bank Act* 90 of 1989. A VC is not a tangible thing. It is paperless and exists in electronic (e-) form only within a computerised network. A VC is also distinguishable from e-money.¹¹ Despite the financial and other commercial risks associated with the use of VCs generally,¹² they are, as units of value created and stored digitally, increasingly being accepted as e-payment instruments or mechanisms, particularly Bitcoin.¹³

2. Problem statement, research question and aim

Conceptually, VCs are classifiable as centralised or decentralised, and convertible or non-convertible.¹⁴ Convertible VCs are those which, potentially, have an equivalent value in real currency and may, thus, be exchanged for the latter. There are two subsets of such VCs, namely centralised convertible and decentralised convertible VCs. The former has a single third-party administering authority that issues the VC, establishes rules for its use among principals in transactions, maintains a central payment ledger for the currency, and has authority to redeem it.¹⁵ Examples hereof include Webmoney and PerfectMoney. On the other hand, decentralised convertible virtual currencies (DCVCs) are distributed, open-source, math-based peer to peer VCs that have no central administering authority, and no central monitoring oversight. Examples of DCVCs include Bitcoin, Litecoin and

10 Fiat currency refers to currency that is legal tender issued and backed by a central authority. See Seetharaman *et al.* 2017:237.

11 E-money is defined to mean “electronically stored monetary value issued on receipt of funds and represented by a claim on the issuer”. The South African Reserve Bank (2014) also declares that, since e-money such as mobile money is “redeemable for physical cash or a deposit into a bank account on demand”, the issuance of e-money is the business of a bank as defined in the *Banks Act* 94/1990.

12 For a discussion of the risks, see Financial Action Task Force “Virtual currencies key definitions and potential AML/CFT risks”, 9-10; South African Reserve Bank “Position Paper on virtual currencies”, 5-12, <http://www.resbank.co.za> (accessed on 13 April 2019); South African National Treasury “User alert: Monitoring of virtual currencies”, [http://www.treasury.gov.za/comm media](http://www.treasury.gov.za/comm%20media) (accessed on 13 April 2019).

13 See Ly 2014:587; Nieman 2015:1979. Breyer J, in *Wisconsin Central Ltd v US* (2018) 585 US (21 June 2018):3, commented as follows about the changing face of money as remuneration: “perhaps one day employees will be paid in Bitcoin or other type of cryptocurrency”.

14 South African Reserve Bank “Position Paper on virtual currencies”, 2, <http://www.resbank.co.za> (accessed on 13 April 2019).

15 Financial Action Task Force “Virtual currencies key definitions and potential AML/CFT risks”, 4-5, <http://www.fatf-gafi.org/publications/methodsandtrends/documents/virtual-currency-definitions-aml-cft-risk.html> (accessed on 13 April 2019).

Ripple.¹⁶ DCVCs are considered cryptocurrency, i.e. a math-based DCVC that is protected by cryptography.¹⁷

On the worldwide web, place (that is, location) is of little or no consequence.¹⁸ The networked world is a boundary-free sphere that belongs to no person or sovereign. The absence of an identifiable geographic web boundary permits e-commerce to flourish largely unhindered by fiscal laws such as the *Income Tax Act 58 of 1962 (ITA)*, which establish jurisdiction to tax receipts and accruals with reference to a fixed place on a map. Consequently, commercial activity in the digital economy can cause damage to South Africa’s tax base.¹⁹

Virtual currencies will erode South Africa’s tax base, because they permit instant, anonymous, virtual, almost untraceable, e-payments to anyone located anywhere in the world.²⁰ Hence, there is a real need for state intervention. On 6 April 2018, the South African Revenue Service (SARS) issued a media release on the income tax treatment of cryptocurrencies, the relevant extract of which reads:

Cryptocurrency ... is an internet-based digital currency that exists almost wholly in the virtual realm. A growing number of proponents support its use as an alternative currency that can pay for goods and services much like conventional currencies. In South Africa, the word ‘currency’ is not defined in the *Income Tax Act* (the Act). Cryptocurrencies are neither official South African tender nor widely used and accepted in South Africa as a medium of payment or exchange. As such, cryptocurrencies are not regarded by SARS as a currency for income tax purposes or Capital Gains Tax (CGT). Instead, cryptocurrencies are regarded by SARS as assets of an intangible nature. Whilst not constituting cash, cryptocurrencies can be valued to ascertain an amount received or accrued as envisaged in the definition of ‘gross income’ in the Act. Following normal income tax

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- 16 Other examples are Darkcoin, Peercoin, Feathercoin, Monero, and Ethereum.
17 Nieman 2015:1983.
18 Cox 2002:244-245; Oguttu & Van der Merwe 2005:320-321. In *Master Currency (Pty) Ltd v CSARS* 2014 6 SA 66 (SCA):par. 22, it was held that banknotes, being currency, embody personal rights that are situated at their place of issue.
19 Jones & Basu 2002:41-43. The Davis Tax Committee “First interim report: Addressing base erosion and profit shifting in South Africa”, 1-2, www.taxcom.org.za (accessed on 12 April 2019) identifies the following as key challenges arising from e-commerce: first, it hinders the identification of a place of business when determining if a non-resident entity has a permanent establishment for purposes of taxing its business profits in South Africa; secondly, the highly mobile nature of e-commerce coupled with the ability of residents to establish offshore companies could lead to tax-driven migration to low-tax jurisdictions; thirdly, the anonymous nature of e-commerce makes it difficult to (i) identify and locate taxpayers; (ii) identify and verify taxable transactions, and (iii) identify a link between taxpayers and taxable transactions.
20 The Davis Tax Committee “First interim report: Addressing base erosion and profit shifting in South Africa”, 2, www.taxcom.org.za (accessed on 12 April 2019). See also the DTC “Second interim report on base erosion and profit shifting in South Africa”, 103-105, www.taxcom.org.za (accessed on 12 April 2019).

rules, income received or accrued from cryptocurrency transactions can be taxed on revenue account under 'gross income'.²¹

The SARS media release underscores the importance for taxpayers to disclose transactions denominated in cryptocurrency. The problem is that uncertainty exists as to whether SARS correctly categorised cryptocurrencies as non-cash assets of an intangible nature capable of receipt or accrual for tax purposes. This gives rise to the research question forming the subject of this article: Can a cryptocurrency be included in "the total amount, in cash or otherwise, received by or accrued to" a taxpayer for gross income purposes under the *ITA*?²²

To avoid the answer hereto being an abstract discussion of diminished practical significance, Bitcoin will be used as a reference point. This DCVC is selected because, as is evident from SARS's media release and the DTC reports mentioned earlier,²³ cryptocurrency is typified by Bitcoin. Since it is the e-payment system more widely accepted than any other VC, both in the online and offline community inside and outside South Africa, Bitcoin is the digital currency more likely to be encountered by taxpayers for disclosure to SARS.

To answer the research question, the discussion commences with an outline of technical aspects relating to the inner workings of Bitcoin. Then, the income taxation thereof is discussed, first, at international level in the United States of America (USA) and Australia. These countries are selected because, like South Africa, they have residence-based income tax regimes. Also, their tax authorities have provided some concrete guidelines in relation to the income taxation of Bitcoin denominated transactions. These guidelines are useful for comparative purposes. Thereafter, the income taxation of Bitcoin in South Africa is discussed. Finally, the conclusion distils, and pulls together, the main thrust of the submissions emerging from this article.

3. Limitation of the research scope and its significance

Since SARS's media release does not pertain to VCs in general, the research question is limited to cryptocurrencies. Accordingly, the income tax implications of other types of VCs are beyond the remit of this article. Although

21 See South African Revenue Service "SARS's stance on the tax treatment of cryptocurrencies", <http://www.sars.gov.za/Media/MediaReleases> (accessed on 14 April 2019, italics added).

22 For the definition of "gross income", see *Income Tax Act 58/1962*:sec. 1. For present purposes, the relevant extract thereof defines this term to mean, in relation to any person, "the total amount, in cash or otherwise, received by or accrued to or in favour of such [person] ..., excluding receipts or accruals of a capital nature". In this context, the term "person" is defined in sec. 1 of the *Income Tax Act* as including "an insolvent estate, the estate of a deceased person and any trust".

23 See fn. 20.

the discussion is undertaken through the Bitcoin prism, the principles discussed will apply equally to the income taxation of cryptocurrencies generally, subject to necessary contextual changes. Furthermore, although SARS’s media release refers to the intended treatment of cryptocurrencies for Capital Gains Tax (CGT) purposes, this article will not venture into that realm. Doing so is also deemed unnecessary for answering the research question. However, certain principles discussed, in this instance, are common to the rules governing CGT so that they would also apply in that context. This enhances the significance of this article’s subject matter in the tax arena.

The VC phenomenon originated with the creation of Bitcoin in about 2008/2009.²⁴ As such, VCs are a relatively recent technological innovation in the internet of things.²⁵ Apart from there being no statute in South Africa presently regulating any form of VC, there is also no judicial pronouncement on their nature generally, nor with respect to cryptocurrency in particular. A literature survey reveals that there is scant academic writing on VCs from a South African income tax perspective.²⁶ As far as the author is able to ascertain at the time of penning this article, no publication exists that investigates the research question formulated in paragraph 2 above. Thus, the subject of this article may guide taxpayers, tax practitioners, SARS officials, judicial officers, academics and researchers alike who are dealing with the income taxation of cryptocurrencies.

4. The operation of Bitcoin on a digital platform

Bitcoin is a nascent e-currency and payment system operated on the Bitcoin computer network.²⁷ As a pseudo-currency used as an alternative to mainstream currencies, Bitcoin changed the way payment is effected in the online and offline communities. The power to produce Bitcoin as digital currency does not vest with any issuing body, nor does its use require the involvement of a bank, central government, institutional regulator, repository or network operator. The absence of a central administrator or point of control allows for self-regulation by members within the Bitcoin community. Since Bitcoin users deal directly with each other, an advantage is that transaction costs are considerably lower than those attendant upon payments that rely on third-party intermediaries such as, banks and payment processors.²⁸

24 Ly 2014:588-591.

25 Baker (2015:368) states that the “internet of things” is “a buzz phrase in the techy community that refers to the recent boom in connected devices and chattels” such as smartphones.

26 See, for example, Johnston & Pienaar 2013:71; Wicht 2016:66-87. For a foreign tax perspective, see, for example, Wicht 2016:28-65; Akins *et al.* 2014:25; Huang 2015: 224.

27 Brito & Castillo (2013-2014:4) describe Bitcoin as “a decentralised peer-to-peer payments network and a virtual currency that essentially operates as online cash”.

28 Akins *et al.* 2014:30; Leidel 2018:113.

Unlike other VCs, Bitcoin is an open-sourced scheme.²⁹ As such, users can convert fiat currency into Bitcoin for use in the virtual or real world, and can reconvert them into fiat currency such as, dollars, yen, euros, or rand.³⁰ The Bitcoin system uses a digital ledger in which each participant (or “node”) has an account. Every transaction is posted to the ledger. A collection of these entries or postings is called a “block”. Each block is distributed to all nodes on the Bitcoin network. In this way, blocks are made public within the Bitcoin community whose members are then able to verify the authenticity of a block within the Bitcoin chain.³¹ A historical record or log of all past verified transactions in the Bitcoin ledger is called a “blockchain”. Authentication of a block is crucial to ensuring the integrity and continued viability of Bitcoin as a medium of exchange. Verification ensures that users do not double spend Bitcoin, nor alter Bitcoin balances.³²

Bitcoin is stored in a virtual “wallet”³³ (that is, software that stores the digital credentials of a user’s Bitcoin holdings).³⁴ An e-wallet is a computer-generated storage file located in, for example, the hard drive of a computer, or in an electronic device such as a USB memory stick, portable modem, or computer disk,³⁵ or in an online database such as, iCloud³⁶ or Dropbox.³⁷ E-wallets show the balance of a user’s Bitcoin holdings.³⁸ As such, Bitcoin is “data” as defined in sec. 1 of the *ECTA*, namely “electronic representations of information in any form”. Bitcoin is

29 The other recognised VC schemes are known as “closed-flow” and “hybrid-flow”. See Akins *et al.* 2014:27.

30 Akins *et al.* 2014:27-28.

31 South African Reserve Bank “Position Paper on virtual currencies”, 3, <http://www.resbank.co.za> (accessed on 13 April 2019).

32 Brito & Castillo 2013-2014:3-4. The protection of cryptocurrency users against double spend is similar to the maintenance of the integrity of the payment system facilitated by banks which ensure, for example, that their clients do not spend more than the available funds reflected in the bank’s records.

33 A computer file storing Bitcoin is called a “software wallet”; a remote server storing Bitcoin is called a “web wallet”. See <https://bitcoin.org/en/vocabulary#mining> (accessed on 10 April 2019).

34 Villasenor “Secure Bitcoin storage: A Q&A with three Bitcoin company CEOs”, <https://www.forbes.com/sites/johnvillasenor/2014/04/26/secure-bitcoin-storage-a-qa-with-three-bitcoin-company-ceos/#336e0f525cdd> (accessed on 21 April 2019).

35 Leidel (2018:111) points out that the storing of cryptocurrencies in a computer completely offline or in a vault is called “cold storage”.

36 iCloud is a computing service by Apple Inc. that provides cloud storage and applications for desktop, tablet and mobile devices. iCloud enables users to store online documents, videos, music, photographs and other data. See <https://www.techopedia.com/definition/28257/icloud> (accessed on 14 April 2019).

37 Dropbox is a personal cloud storage service (or online backup service) for file sharing such as documents, videos and photographs and collaboration among users. See <https://www.techopedia.com/definition/26850/dropbox> (accessed on 14 April 2019).

38 An e-wallet may contain several types of cryptocurrency. In South Africa, each type ought to be regarded as separate taxable property as applied by the Australian Taxation Office (2018). See <https://www.ato.gov.au/General/Gen/Tax-treatment->

sent and received via a Bitcoin “address” (that is, a long alphanumeric string used by the Bitcoin network as an identifier of a particular user).³⁹ To receive, store and transmit encrypted Bitcoin, a user must install the requisite management software which enables the user’s computer to connect to the Bitcoin network.⁴⁰ Without connectivity, a person cannot be a node in the Bitcoin ledger, or participant in a block.⁴¹

A Bitcoin, or any sub-unit of value therein (known as a “bit”), may be transferred from peer to peer (called “P2P”). Transferring ownership in Bitcoin involves sending, electronically, the file information of the Bitcoin value that is intended for P2P transmission within the digital environment.⁴² As such, the Bitcoin system consists of a series of “data message[s]” as defined in sec. 1 of the *ECTA*, namely “data [as defined in sec. 1] generated, sent, received or stored by electronic means and includes ... a stored record”. The electronic transfer of Bitcoin carries the risk of loss through, for example, theft by computer hackers. Therefore, to ensure that a secure, trustworthy and reliable electronic ecosystem is maintained, the Bitcoin system is protected by math-based, public-key cryptography in the hands of senders and recipients. As a result, the Bitcoin programme is a “cryptographic product”⁴³ for *ECTA* purposes.⁴⁴

of-crypto-currencies-in-Australia---specifically-bitcoin/?page=2#Transacting_with_cryptocurrency (accessed on 14 April 2019).

39 Commissioner of Taxation, Australia, Taxation Determination (TD) 2014b:/25 “Income tax: is bitcoin a ‘foreign currency’ for the purposes of Division 775 of the Income Tax Assessment Act 1997?”, par. 11, <https://www.ato.gov.au/law/view/document?docid=TXD%2FTD201425%2FNAT%2FATO%2F00001#ft12> (accessed on 21 April 2019).

40 Nakamoto “Bitcoin: A peer-to-peer electronic cash system”, 3, <http://bitcoin.org/bitcoin.pdf> (accessed on 14 April 2019).

41 Akins *et al.* (2014:30) point out that the original block in a chain of electronic transactions is referred to as the “genesis block”.

42 Nakamoto “Bitcoin: A peer-to-peer electronic cash system”, 2, <http://bitcoin.org/bitcoin.pdf> (accessed on 14 April 2019).

43 In sec. 1 of the *Electronic Communications and Transactions Act 25/2002*, the term “cryptographic product” is defined to mean “any product that makes use of cryptographic techniques and is used by a sender or recipient of data messages for the purposes of ensuring (a) that such data can be accessed only by relevant persons; (b) the authenticity of the data; (c) the integrity of the data; or (d) that the source of the data can be correctly ascertained”.

44 Judge Mazzant, in *Securities and Exchange Commission v Trendon T Shavers and Bitcoin Savings and Trust* 2014 WL 4652121 (E.D. Texas, 18 September 2014):2 usefully explained the operation of Bitcoin as follows: “Bitcoins are held at, and sent to and from, bitcoin ‘addresses’. A bitcoin ‘wallet’ is a software file that holds bitcoin addresses. Along with each bitcoin address, a bitcoin wallet stores the ‘private key’ for the address, essentially a password used by the holder to access the bitcoins held at the address, as well as the transaction history associated with the address. Whoever has the private key for a bitcoin address controls the bitcoins held at that address.”

Every Bitcoin user is assigned a public/private keypair that is saved in the user's e-wallet.⁴⁵ A private key is a secret alphanumeric number (or password) that identifies the sender's right to spend Bitcoin. The private key protects users against loss through unauthorised access to their Bitcoin accounts. The public key is an alphanumeric number made available on the Bitcoin network. It serves as a once-off transaction address (or user account number) whereby the recipient may be authenticated for purposes of a "transaction", defined in sec. 1 of the *ECTA* as "a transaction of either a commercial or non-commercial nature".

To transfer Bitcoin, a sender creates a transaction message with the number of Bitcoin or bits to be transferred. Once a sender has authenticated the intended recipient, the former will electronically send the Bitcoin after signing off the transaction using the sender's private cryptographic signature. The Bitcoin transmitted is linked to the sender's public key which facilitates verification of the transaction. Once sent, a transaction is broadcast on the network for validation. The transaction is only added as a new, irreversible block in the chain once confirmed through a process called "mining".⁴⁶ Mining involves individuals, called miners, using hashing algorithms to solve a complex set of incorruptible mathematical equations that verify transactions.⁴⁷ For performing this service, a miner is rewarded with Bitcoin which become part of the networked ledger.⁴⁸

Based on the foregoing, Bitcoin may be obtained by successful mining, by purchasing it from a Bitcoin exchange such as Bitstamp and Luno,⁴⁹ by accepting it as payment for goods or services, by receiving it as an award, and by exchanging conventional currency for Bitcoin.⁵⁰ Apart

45 Unlike bank accounts, e-wallets do not contain a user's personal information such as name, identity number, and address. This fosters high levels of anonymity when Bitcoins are traded. See Jeans 2015:105.

46 In this context, mining refers to a process involving, on the one hand, a digital currency miner spending competitive computing power of specialised hardware to validate cryptocurrency transactions on a Bitcoin network, and, on the other, to secure the network using encryption techniques and keep all peers thereon duly synchronised so that they have a complete, immutable historical record of all confirmed transactions relating to Bitcoin.

47 Simonite "What Bitcoin is, and why it matters: Can a booming 'cryptocurrency' really compete with conventional cash?", <https://www.technologyreview.com/s/424091/what-bitcoin-is-and-why-it-matters/> (accessed on 14 April 2019).

48 South African Revenue Service "SARS's stance on the tax treatment of cryptocurrencies", <http://www.sars.gov.za/Media/MediaReleases> (accessed on 14 April 2019). See also Akins *et al.* 2014:33-35.

49 Bitstamp is an exchange based in Luxembourg that allows trading between fiat currency and cryptocurrency. See <https://www.bitstamp.net/> (accessed on 12 April 2019). Luno (formerly known as BitX) is an exchange platform based in the United Kingdom that offers wallet and crypto asset exchange services to multiple countries. See <https://www.cryptocompare.com/exchanges/luno/overview> (accessed on 13 April 2019).

50 The Court of Justice of the European Union, in *Skatteverket v Hedqvist* case no. C-264/14 (22 October 2015), recognised Bitcoin as a means of payment. Consequently, it held that transactions involving the exchange of traditional currencies for Bitcoin (and vice versa) qualify as the supply of services for

from South Africa, Bitcoin’s use in commerce is legal in, for example, the USA, Australia and Canada. Its global appeal raises the question as to the attendant income tax liability for transferors and transferees alike. It is to this issue that the focus now shifts.

5. Income tax treatment of Bitcoin in the United States of America and Australia

As in South Africa, the national laws of the USA and Australia have no statute regulating the taxation of cryptocurrency, including Bitcoin. Tax treatment in these jurisdictions is instead based on advisories issued by their respective tax administration agencies. In the USA, it is the IRS; in Australia, the ATO; in South Africa, SARS. For comparative purposes, the ensuing discussion seeks to highlight key aspects of the IRS and ATO’s advisories concerning income tax consequences of cryptocurrency transactions.

5.1 The IRS’s position

The federal income tax implications stemming from cryptocurrency receipts are outlined in the IRS’s Notice 2014-21. This Notice directs that, although Bitcoin “does not have legal tender status in any jurisdiction”, including the USA, “it operates like ‘real’ currency”.⁵¹ This is because “Bitcoin can be digitally traded between users and can be purchased for, or exchanged into, U.S. dollars, Euros, and other real or virtual currencies”.⁵² As such, Bitcoin is a VC with “an equivalent value in real currency, or ... acts as a substitute for real currency”.⁵³ Thus, the IRS views Bitcoin as a convertible VC.

The Notice reads: “For federal tax purposes, virtual currency is *treated* as property. General tax principles applicable to property transactions apply to transactions using virtual currency.”⁵⁴ The Notice makes no definitive characterisation of the nature of Bitcoin or VCs generally. It merely records that VCs are deemed (“treated”) as if they are property to which ordinary tax principles apply. Thus, Bitcoin received as wages are “subject to federal income tax withholding, Federal Insurance Contributions Act

consideration within the meaning of the Value-Added Tax Directive 2002/112/EC of 28 November 2011 so that they are exempt from value-added tax. The court held further that financial transactions that involve Bitcoin ought also to be exempt from value-added tax by virtue of the Value-Added Tax Directive provisions pertaining to “currency, bank notes and coins used as legal tender”. Therefore, the court viewed Bitcoin as a currency, not as a commodity.

51 Internal Revenue Service “Notice 2014-21”, 1, <https://www.irs.gov/pub/irs-drop/n-14-21.pdf> (accessed on 1 April 2019).

52 Internal Revenue Service “Notice 2014-21”, 1, <https://www.irs.gov/pub/irs-drop/n-14-21.pdf> (accessed on 1 April 2019).

53 Internal Revenue Service “Notice 2014-21”, 1, <https://www.irs.gov/pub/irs-drop/n-14-21.pdf> (accessed on 1 April 2019).

54 Internal Revenue Service “Notice 2014-21”, 2, <https://www.irs.gov/pub/irs-drop/n-14-21.pdf> (accessed on 1 April 2019, emphasis added).

(FICA) tax, and Federal Unemployment Tax Act (FUTA) tax”.⁵⁵ In addition, if a taxpayer’s mining of Bitcoin constitutes a trade, then the net earnings from self-employment constitute income subject to self-employment tax.⁵⁶

Transactions on the Bitcoin network are not denominated in dollars or other government fiat currency. Instead, they are denominated in Bitcoin.⁵⁷ This raises the question as to how its value is determined for reporting purposes. The IRS’s Notice stipulates that taxpayers must include, in their gross income, the “fair market value of the virtual currency, measured in U.S. dollars, as of the date that the virtual currency was received”.⁵⁸ Bitcoin is traded on various exchanges. Thus, its exchange rate is determined by market supply and demand. For IRS purposes, Bitcoin’s fair market value will be determined by converting it into US dollars or other fiat currency which can be re-converted into US dollars at the relevant exchange rate “in a reasonable manner that is consistently applied”.⁵⁹

5.2 The ATO’s position

In Australia, the income tax implications of cryptocurrency receipts are similar to those in the USA and South Africa. There are material differences as highlighted below. The ATO’s guidelines appear on its website.⁶⁰ Unlike the IRS’s Notice, the ATO’s guidelines are not aimed specifically at convertible VCs. Like SARS’s media release,⁶¹ the ATO’s guidelines relate to cryptocurrencies, not VCs generally.

According to the ATO, if, in accordance with a valid salary sacrifice arrangement with an employer, an employee receives cryptocurrency as remuneration, then this is treated by the ATO as “a fringe benefit and the employer is subject to the provisions of the *Fringe Benefits Tax Assessment Act 1986*”.⁶² The ATO treats this as a property benefit, the value of which is established at the time of it being provided. If an employee earns

55 Internal Revenue Service “Notice 2014-21”, 4-5, <https://www.irs.gov/pub/irs-drop/n-14-21.pdf> (accessed on 1 April 2019).

56 Internal Revenue Service “Notice 2014-21”, 4, <https://www.irs.gov/pub/irs-drop/n-14-21.pdf> (accessed on 1 April 2019).

57 Brito & Castillo (2013-2014:4) state that the value of Bitcoin as a currency is “not derived from gold or government fiat, but from the value that people assign to it”.

58 Internal Revenue Service “Notice 2014-21”, 2-3, <https://www.irs.gov/pub/irs-drop/n-14-21.pdf> (accessed on 1 April 2019).

59 Internal Revenue Service “Notice 2014-21”, 3, <https://www.irs.gov/pub/irs-drop/n-14-21.pdf> (accessed on 1 April 2019).

60 See Australian Taxation Office: <https://www.ato.gov.au> (accessed on 15 April 2019).

61 South African Revenue Service “SARS’s stance on the tax treatment of cryptocurrencies”, <http://www.sars.gov.za/Media/MediaReleases> (accessed on 14 April 2019).

62 Australian Taxation Office “Cryptocurrency used in business”, https://www.ato.gov.au/general/gen/tax-treatment-of-crypto-currencies-in-australia---specifically-bitcoin/?page=3#Using_cryptocurrency_for_business_transactions (accessed on 15 April 2019).

cryptocurrency as remuneration without a valid salary sacrifice arrangement, then the employer must satisfy its pay-as-you-go (PAYG) obligations on the Australian dollar value of the cryptocurrency paid.⁶³

According to the ATO, cryptocurrency is “only capable of being acquired, held and transacted with”.⁶⁴ Cryptocurrency originally acquired by a taxpayer as, for example, a personal use asset may over time metamorphose its nature by a taxpayer changing its intention in relation thereto. Thus, at its disposal, the asset’s nature may, for example, be trading stock so that profit yielded must be included in the taxpayer’s business income and assessable to income tax. If so, then the cost of acquiring the cryptocurrency will be tax deductible.⁶⁵ As for new cryptocurrency received owing to a “chain split” of cryptocurrency held in a business, the ATO will treat the new cryptocurrency as trading stock, if it is held for sale or exchange in the ordinary course of business.⁶⁶

This raises the question: What is the test for whether a taxpayer carries on a business where cryptocurrency is trading stock? According to the ATO, cryptocurrency-related activities qualify as a business such as cryptocurrency mining or cryptocurrency exchange, if the taxpayer’s conduct, viewed holistically, has the hallmarks of a cryptocurrency business. These include, but are not limited to the following features: repetition and regularity of transacting with cryptocurrency, although a once-off transaction may, in exceptional cases, qualify as a business; transacting with cryptocurrency in a business-like way such as preparing a business plan and disposing of cryptocurrency in accordance with that plan; engaging in the acquisition and/or disposal of cryptocurrency for commercial reasons and in a commercially viable way; preparing accounting records in relation to cryptocurrency transactions and market a business name or product associated with cryptocurrency, and the presence of an intention to profit or a genuine belief that a profit will be made from transacting with cryptocurrency.⁶⁷

A taxpayer’s gross income must include, in Australian dollars, a cryptocurrency’s fair market value as sourced from a “reputable cryptocurrency exchange”.⁶⁸ While reputation is the standard for

63 See the preceding footnote.

64 Australian Taxation Office 2018b.

65 Australian Taxation Office 2018a.

66 Australian Taxation Office “Transacting with cryptocurrency”, https://www.ato.gov.au/General/Gen/Tax-treatment-of-crypto-currencies-in-Australia---specifically-bitcoin/?page=2#Transacting_with_cryptocurrency (accessed on 15 April 2019). A “chain split” refers to a scenario where, as a result of an original blockchain splitting, two or more competing versions of the blockchain are created that share the same history up to the point that their rulesets diverge. See Light “The differences between a hard fork, a soft fork, and a chain split, and what they mean for the future of bitcoin”, <https://medium.com/@lightcoin/the-differences-between-a-hard-fork-a-soft-fork-and-a-chain-split-and-what-they-mean-for-the-769273f358c9> (accessed on 19 April 2019).

67 Australian Taxation Office 2018a.

68 Australian Taxation Office 2018a.

acceptability of a valuation, the ATO failed to provide guidance on how it will measure whether an exchange is “reputable”. In addition, the ATO website omits providing guidance on how the fair market value will be determined for cryptocurrencies not traded on any exchange.

As regards Bitcoin, the Commissioner of Taxation (COT) has, on behalf of the ATO, issued a suite of rulings under the *Taxation Administration Act 1953*.⁶⁹ Owing to SARS’s deemed classification of Bitcoin as property, a useful ruling for comparative purposes is TD2014/26.⁷⁰ It discusses whether Bitcoin is “any kind of property”. In answering this in the affirmative, the COT relied on principles emanating from property jurisprudence, *inter alia*, *Yanner v Eaton*,⁷¹ namely that “property refers not to a thing but to a description of a legal relationship with a thing; and, more specifically, to the degree of power that is recognised in law as permissibly exercised over the thing”.

The COT ruled that “the relevant relationship in the nature of property that must be considered is the relationship between: the object or thing, bitcoin, being the digital representation of value constituted by three interconnected pieces of information (a Bitcoin address; the Bitcoin holding or balance in that address, and the public and private keypair associated with that address) and the bundle of rights (hereafter ... ‘Bitcoin holding rights’)⁷² ascribed to a person with access to the bitcoin under the Bitcoin software and by the community of Bitcoin users”.⁷³

The COT ruled that various factors supported the conclusion that Bitcoin holding rights constitute property. First, Bitcoin is valuable, transferable items of property within a community of users and merchants.⁷⁴ Secondly, the rights satisfy the “Ainsworth test”⁷⁵ in that they are definable,

69 See, for example, Commissioner of Taxation, Australia TD 2014/25 “Income tax: is bitcoin a ‘foreign currency’ for the purposes of Division 775 of the Income Tax Assessment Act 1997?”; TD 2014/27 “Income tax: is bitcoin trading stock for the purposes of subsection 70-10(1) of the Income Tax Assessment Act 1997?”; TD 2014/28 “Fringe benefits tax: is the provision of bitcoin by an employer to an employee in respect of their employment a property fringe benefit for the purposes of subsection 136(1) of the Fringe Benefits Tax Assessment Act 1986?”

70 Commissioner of Taxation, Australia “Income tax: Is bitcoin a ‘CGT asset’ for the purposes of subsection 108-5(1) of the Income Tax Assessment Act 1997?”, <https://www.ato.gov.au/law/view/document?docid=TXD%2FTD201426%2FNAT%2FATO%2F00001> (accessed on 21 April 2019).

71 *Yanner v Eaton* (1999) 201 CLR 351:365-367.

72 At par. 9 of TD2014/26, the Commissioner of Taxation, Australia opined that the “most important of these Bitcoin holding rights are the rights of control over one or more bitcoin in the holder’s Bitcoin wallet, for example, the capacity to trade a bitcoin for other value or use it for payment”.

73 Commissioner of Taxation, Australia “Income tax: Is bitcoin a ‘CGT asset’ for the purposes of subsection 108-5(1) of the Income Tax Assessment Act 1997?”, par. 8, <https://www.ato.gov.au/law/view/document?docid=TXD%2FTD201426%2FNAT%2FATO%2F00001> (accessed on 21 April 2019).

74 See *Halwood Corporation Ltd v Chief Commissioner of Stamp Duties* (1992) 33 NSWLR 395:403.

75 See *National Provincial Bank Ltd v Ainsworth* (1965) AC 1175:1247-1248.

identifiable and capable of assumption by third parties, and they are sufficiently stable. Thirdly, the rights involve an inherent excludability of others from its enjoyment in that Bitcoin software restricts control over a Bitcoin holding only to the user who possesses the relevant private key.⁷⁶

6. Income tax treatment of cryptocurrency in South Africa

6.1 The SARS position

An analysis of the SARS media release referred to in paragraph 2 above reveals that, as in the USA and Australia, cryptocurrencies will be treated (“regarded”) as property (“assets”). However, whereas SARS expressly characterises cryptocurrency “as assets of an intangible nature”, the IRS’s Notice 2014-21 and ATO’s published guidelines make no such classification. The SARS media release also indicates that its treatment of cryptocurrencies is premised on them being “neither official South African tender nor widely used and accepted in South Africa as a medium of payment or exchange”. Therefore, logic dictates that if, in future, cryptocurrency becomes an established, trusted method of payment or exchange in South Africa that is widely used and accepted, SARS would be obliged to revisit its classification and deem cryptocurrency to be, for tax purposes, an “alternative currency” to the South African Rand.

The importance of SARS’s classification of cryptocurrencies as assets and not as currency is evident from an analysis of the term “asset” as used in, for example, the Eighth Schedule of the *ITA*.⁷⁷ Paragraph 2 thereof stipulates that CGT may arise on the disposal of “any asset of a resident” and of listed “assets of a person who is not a resident”. Paragraph 1 of the Eighth Schedule defines “asset” as including “(a) property of whatever nature, whether movable or immovable, corporeal or incorporeal, *excluding any currency*, but including any coin made mainly from gold or platinum; and (b) a right or interest of whatever nature to or in such property”.⁷⁸ Consequently, incorporeal (that is, intangible) property may give rise to a CGT liability.

76 See *Milirpum v Nabalco Pty Ltd* (1971) 17 FLR 141:272; *Potter v CIR* (1854) 156 ER 392:396.

77 The term “asset” is also significant in, for example, sec. 42 of the *Income Tax Act* dealing with the tax roll-over relief arising from an “asset-for-share transaction” as defined in sec. 42(1). In terms of sec. 42, roll-over relief applies to transactions involving disposals of “a capital asset” or “trading stock”. The *Income Tax Act*:sec. 1 defines “trading stock” as including “anything produced, manufactured, constructed, assembled, purchased or in any other manner acquired by a taxpayer for the purposes of manufacture, sale or exchange by the taxpayer or on behalf of the taxpayer” and “anything the proceeds from the disposal of which forms or will form part of the taxpayer’s gross income ...”.

78 Emphasis added.

Based on the foregoing, SARS will reject a taxpayer's contention that Bitcoin and other cryptocurrency are a "currency" within the contemplation of par. 1 of the Eighth Schedule. However, like a SARS interpretation note,⁷⁹ SARS's media release is not a binding ruling or statement of law. Thus, taxpayers can challenge SARS's deeming of cryptocurrency as not being currency for tax purposes. This can be done by an objection or, if needs be, an appeal against a SARS decision to levy CGT on a gain made on the disposal of Bitcoin or other cryptocurrency held, for example, as an investment.⁸⁰ A similar challenge can be made in respect of a SARS decision to levy income tax on a receipt or accrual of cryptocurrency regarded as trading stock or other form of revenue income.

6.2 Income tax on Bitcoin receipts and accruals

Income tax⁸¹ may be collected by SARS only if a tax debt is due and payable⁸² pursuant to the issuance of an assessment.⁸³ The purpose of an assessment appears from its definition in sec. 1 of the *Tax Administration Act 28 of 2011 (TAA)*, namely "the determination of the amount of a tax liability or refund, by way of self-assessment by the taxpayer or assessment by SARS".

When assessing an income tax liability, the terms "taxable income", "gross income" and "income", as defined in sec. 1 of the *ITA*, play important roles. Their interconnectedness is usefully summarised in the following *dictum*:⁸⁴

79 For the status of South African Revenue Service's interpretation notes, see *Marshall v CSARS* 2018 7 BCLR 830 (CC):paras 4-10.

80 Objections and appeals against tax assessments are dealt with in Chapter 9 (Part B) of the *Tax Administration Act 28/2011*.

81 Under the *Income Tax Act*:sec. 5(1), income tax is also referred to as "the normal tax".

82 The *Tax Administration Act*:sec. 1 read with sec. 169(1) defines "tax debt" to mean "an amount of tax due or payable in terms of a tax Act". In this context, "tax" is defined in sec. 1 of the *Tax Administration Act* as including a penalty and interest. A tax debt is due when there is a "liquidated money obligation presently claimable by the creditor for which an action could presently be brought against the debtor. Stated another way, the debt must be one in respect of which the debtor is under an obligation to pay immediately" (per Olivier AJA in *Singh v CSARS* 2003 4 SA 520 (SCA):par. 25). The *Tax Administration Act*, for example, in secs 169(1) and 172(1), distinguishes taxes "due" from those that are "payable". For a discussion of this distinction, see *Capstone 556 (Pty) Ltd v CSARS; Kluh Investments (Pty) Ltd v CSARS* 2011 6 SA 65 (WCC):par. 13; *Namex (Edms) Bpk v KBI* 1994 2 SA 265 (A):289 E-G.

83 For the characteristics of an "assessment", see *First South African Holdings (Pty) Ltd v CSARS* 2011 73 SATC 221:226 E-F; *Irvin & Johnson SA (Pty) Ltd v CIR* 14 SATC 24; *CSARS v South African Custodial Services (Pty) Ltd* 2012 1 SA 522 (SCA):paras 28-32. See also Moosa 2012:32. An "assessment" is distinguishable from a "notice of assessment". The latter, dealt with in the *Tax Administration Act*:sec. 96, is not necessarily the same as the former. See Moosa 2017:148.

84 *CIR v Nemojim (Pty) Ltd* 1983 4 SA 935 (A):946 F-H (italics added).

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Taxable income is the basis upon which normal tax is levied. ... Taxable income is arrived at by first determining the taxpayer's gross income and then deducting therefrom any amounts exempt from normal tax in order to arrive at the taxpayer's income. Taxable income is then determined by deducting from income the various amounts which the [*Income Tax*] Act allows by way of deduction from income.⁸⁵

To answer the research question formulated in paragraph 2 above requires focused consideration of key elements of the gross income definition.⁸⁶ In terms thereof, an “amount” is included in gross income if it is property of a revenue⁸⁷ nature that is “received by or accrued to” a taxpayer by reason of the occurrence of a taxable event.⁸⁸ For non-resident taxpayers, the amount must also be from a source in South Africa.⁸⁹ Linguistically, the word “or” in the phrase “received by or accrued to” means that these triggering events operate as alternatives (that is, disjunctively)⁹⁰ and not conjunctively as would be the case if the legislature had used the word “and”.⁹¹ Consequently, provided all other requirements of the gross income definition are met, whichever of these events (that is, receipt or accrual) occurs first will be determinative of the timing (that is, the year of assessment) when an amount is to be included in gross income for purposes of computing a taxpayer's taxable income.⁹²

In this context, “received by” is not interpreted literally to mean money or money's worth in the actual, physical possession or control of the taxpayer. It is trite that not every possession or control of money or money's worth is a receipt for gross income.⁹³ Properly construed, “received by”,

85 It is beyond the scope of this article to discuss the nature of income exempt from taxation, and permissible tax deductions under the general deduction formula.

86 See fn. 22.

87 For the test to distinguish between capital and revenue income, see *CSARS v Founders Hill (Pty) Ltd* 2011 5 SA 112 (SCA):paras 18-52; *Stellenbosch Farmers' Winery Ltd v CSARS*; *CSARS v Stellenbosch Farmers' Winery Ltd* 2012 5 SA 363 (SCA):paras 23-46; *CSARS v Capstone 556 (Pty) Ltd*:paras 22-32; *Volkswagen SA (Pty) Ltd v CSARS* 2018 1 All SA 716 (SCA):paras 16-30.

88 In this context, the term “taxable event” bears its meaning as defined in sec. 1 of the *Tax Administration Act*, namely “an occurrence which affects or may affect the liability of a person to tax”. For Capital Gains Tax purposes, the disposal of a capital asset is a taxable event (as defined).

89 For the source principles, see *Essential Sterolin Products (Pty) Ltd v CIR* 1993 4 SA 859 (A):870 C-1; *First National Bank of Southern Africa Ltd v CIR* 2002 3 SA 375 (SCA):paras 12-18. A discussion of the source of cryptocurrencies is beyond the scope of this article.

90 *SIR v Silverglen Investments (Pty) Ltd* 1969 1 SA 365 (A):376 A-G; *MV Iran Dastghayb Islamic Republic of Iran Shipping Lines v Terra-Marine SA* 2010 6 SA 493 (SCA):par. 22; *SS v Presiding Officer of the Children's Court: District of Krugersdorp* 2012 6 SA 45 (GSJ):par. 6; *Master Currency (Pty) Ltd v CSARS*:par. 15.

91 For the legal effect of “and”, see *Maphango v Aengus Lifestyle Properties (Pty) Ltd* 2012 3 SA 531 (CC):par. 50.

92 *SIR v Silverglen Investments (Pty) Ltd* 1969 1 SA 365 (A):376 A-G.

93 *CIR v Genn & Co (Pty) Ltd* 1955 3 SA 293 (A):301 E.

when read holistically with “the total amount, in cash or otherwise”, bears a technical meaning, namely the monetary value of cash or any other property acquired by a taxpayer on his/her own behalf and for his/her own benefit.⁹⁴ Since the property forms part of the taxpayer’s patrimony, s/he is in law entitled to transact with it as s/he deems fit, subject always to a third party’s possessory, fideicommissary, usufructuary or other limited right or interest in the property. By reason of the taxpayer acquiring rights of ownership, the monetary value of the property concerned must be disclosed in the appropriate asset section of the taxpayer’s balance sheet in the financial statements referred to in sec. 28 of the TAA that are to be lodged with SARS.

For gross income purposes, it is a factual question in each case whether a Bitcoin or bit is, on a balance of probability,⁹⁵ “received” in the sense explained earlier. No hard and fast rules can be laid down in advance. In this enquiry, relevant considerations include: whether the currency is in the Bitcoin block chain; whether the transferee acquired the currency as principal;⁹⁶ whether the transferor intended ownership of the currency to pass to the transferee;⁹⁷ whether the transferee intended to be owner of the currency and/or dealt with it in a way that evinces such intention;⁹⁸ whether the transferee derived benefit from the currency;⁹⁹ whether the transferee is in law obliged to repay the currency to the transferor;¹⁰⁰ whether the transfer of the currency is unalterable owing to its validation; whether the transferee has authorised access to the currency; whether the transferee exercises control over the currency, and whether the transferee earned the currency through, for example, rendering a service or selling goods. No single consideration is of such importance that it is determinative of whether the currency is “received” in a legal sense under the ITA. An affirmative answer to any of the considerations listed, in this instance, would be no more than an indicator that a Bitcoin or bit may have been “received”. The above list is not exhaustive and is intended merely as a guide. Others that are relevant to deciding any case ought to be identified and considered.

94 *KBI v van Blommenstein* 1999 2 SA 367 (SCA):388; *CSARS v Brummeria Renaissance (Pty) Ltd* 2007 6 SA 601 (SCA):par. 9; *CSARS v Cape Consumers (Pty) Ltd* 1999 4 SA 1213 (C):1221-1223 (and the authorities cited there).

95 *CIR v Butcher Brothers (Pty) Ltd* 1945 AD 301.

96 *CIR v Witwatersrand Association of Racing Clubs* 1960 3 SA 291 (A):306.

97 *Geldenhuis v CIR* 1974 3 SA 256 (C):266.

98 Consequently, Bitcoin and any other cryptocurrency, acquired through cybercrime may be regarded as “received” for gross income purposes if the thief dealt with the e-currency as owner. See *CIR v Insolvent Estate Botha t/a ‘Trio Culture’* 1990 2 SA 548 (A):556-557; *MP Finance Group CC (in liquidation) v SARS* 2007 5 SA 521 (SCA):paras 11-12.

99 *Ochberg v CIR* 1931 AD 215:225-229. The absence of a benefit in the taxpayer’s hands would not in and of itself mean that a Bitcoin or bit is not taxable. Benefit is not the litmus test for whether an amount is “received” for gross income purposes. See *CIR v Genn & Co (Pty) Ltd* 1955 3 SA 293 (A):301.

100 *Brookes Lemos Ltd v CIR* 1947 2 SA 976 (A):983; *Greases SA Ltd v CIR* 1951 3 SA 518 (A):524; *Fourie v Edeling* 2005 4 All SA 393 (A):par. 13.

A Bitcoin or bit of a revenue nature may also be included in a recipient’s gross income on the basis of an accrual. An accrual occurs when a taxpayer is unconditionally entitled to an amount, although it may only be payable at a future date.¹⁰¹ By a parity of reasoning with that demonstrated in *CIR v Golden Dumps (Pty) Ltd*,¹⁰² a right to receive payment must be due to a taxpayer in the sense that the right is not dependent on the fulfilment of a condition affecting either a taxpayer’s entitlement or its *quantum*. If an entitlement is contingent *ab initio* in a legal sense, then an accrual occurs in the year of assessment when the contingency falls away. Generally, in commercial transactions, an entitlement to a right is determined and regulated by the common law.¹⁰³ However, whether a right vest in a taxpayer, as contractant, is a factual question to be answered in each instance by, *inter alia*, interpreting the relevant contract and ascribing a meaning to its terms and conditions that makes commercial sense in the particular circumstances.¹⁰⁴

Apart from a factual circumstance such as a genuine, *bona fide* dispute pertaining to the transferee’s entitlement to payment, or a contractual term that suspends a recipient’s entitlement to a Bitcoin or bit until the occurrence of an uncertain future event, it is submitted that no accrual can occur until a miner has confirmed the validity of the e-currency transfer and the transaction is added as a new block on the Bitcoin network. This is because the recipient’s entitlement to a Bitcoin or bit hinges on confirmation. Until entry into the block chain, the right to the currency and to spend it is suspended. If validation is declined, then peers on the Bitcoin network will not recognise the transfer. If so, the transferee will have no right to transact with the Bitcoin or bit. Under such circumstances, no accrual would take place for gross income purposes. If accrual does occur, then the following questions arise: Is Bitcoin an “amount” in a legal sense? If so, is it capable of being valued? These questions will now be considered.

6.3 Bitcoin as property in a legal sense

Bitcoin exists digitally in an e-wallet.¹⁰⁵ Bitcoin lacks a physical (that is, tangible) form. Hence, it cannot be touched. Thus, a Bitcoin is an intangible (incorporeal) thing. When properly understood, a Bitcoin constitutes property in two senses. First, it is a transferable digital unit or bit of value. Secondly, it is a digital ledger or database of the chain of ownership

101 *CIR v People’s Stores (Walvis Bay) (Pty) Ltd* 1990 2 SA 353 (A);365A-367D; *CSARS v KWJ Investments Service (Pty) Ltd* [2018] ZASCA 81 (31 May 2018):par. 25. For a discussion of the distinction between amounts “due” and those “due and payable”, see *Singh v CSARS* 2003 4 SA 520 (SCA):paras 51-53.

102 *CIR v Golden Dumps (Pty) Ltd* 1993 4 SA 110 (A):117-118.

103 *Cactus Investments (Pty) Ltd v CIR* 1999 1 SA 315 (SCA):320 H.

104 *Natal Joint Municipal Pension Fund v Endumeni Municipality* 2012 4 SA 593 (SCA):par. 18; *CSARS v Capstone 556 (Pty) Ltd* 2016 4 SA 341 (SCA):par. 34; *CLDC v CSARS* [2016] ZATC 6 (5 September 2016):par. 15.

105 Bitcoin’s entire existence comprises only of digital 0s and 1s. See Jeans 2015:104.

rights in bits stored in a shared file on a computer network.¹⁰⁶ As a log of digital information, a Bitcoin or bit is “data” capable also of being a “data message” within the meaning of these terms, as defined in sec. 1 of the *ECTA*, referred to in paragraph 4 above.

For *TAA* purposes, the Bitcoin ledger may be a “document”¹⁰⁷ within the meaning of this term as defined in sec. 1 thereof. Grammatically, the opening word “anything” casts its subject very widely. This word must be read with the phrase “or other record of information ... in ... electronic form”, as well as the definition of “information”.¹⁰⁸ When read holistically, the conclusion is inescapable that any file containing the catalogue of historical transfers of Bitcoin in circulation qualifies as a “document”. If this view is correct, then Bitcoin holders, Bitcoin exchanges and servers operating as web wallets are obliged by sec. 29(1) of the *TAA* to retain a record of the Bitcoin shared ledger files and make them accessible to SARS at, for example, an inspection conducted under sec. 31¹⁰⁹ for purposes of verifying whether there has been compliance with secs 29(1) (a) and (b) of the *TAA*. Section 61(3) read with secs 60 and 63 of the *TAA* empowers SARS to search and seize “relevant material”. This will include Bitcoin ledger files, because the remit of the definition of this term for *TAA* purposes includes any “document”.¹¹⁰

Although Bitcoin is, it is submitted, digital property in the dual legal sense explained above, and although a computer file containing Bitcoin may be subject to SARS’s audit, investigative, inspection, search and/ or seizure powers in the *TAA*,¹¹¹ these considerations would not render the acquisition of Bitcoin liable to inclusion in a taxpayer’s gross income. Whether Bitcoin is to be included therein depends on whether it qualifies as an “amount” as interpreted judicially.

106 *Fairfield* 2015:807, 838-863.

107 The term “document” is defined in the *Tax Administration Act* to mean “anything that contains a written, sound or pictorial record, or other record of information, whether in physical or electronic form” (emphasis added). In this context, the term “information” is defined in the *Tax Administration Act*:sec. 1 as including “information generated, recorded, sent, received, stored or displayed by any means”.

108 For the definition of “information”, see the preceding footnote.

109 The relevant extract of sec. 31 of the *Tax Administration Act* reads: “The records, books of account and documents referred to in section 29 ... must at all reasonable times during the required periods under section 29, be open for inspection by a SARS official in the Republic for the purpose of — (a) determining compliance with the requirements of sections 29 and 30; or (b) an inspection, audit or investigation under Chapter 5.”

110 The term “relevant material” is defined in sec. 1 of the *Tax Administration Act* to mean “any information, document or thing that in the opinion of SARS is foreseeably relevant for the administration of a tax Act as referred to in section 3”.

111 It is beyond the scope of this article to consider whether Bitcoin is protected property under sec. 25 of the *Constitution of the Republic of South Africa* 108/1996. For the guiding principles, see *Shoprite Checkers (Pty) Ltd v MEC for Economic Development, Environmental Affairs and Tourism, Eastern Cape* 2015 6 SA 125 (CC):par. 46 (and the authorities cited there at fn. 51).

6.4 Bitcoin as a valuable “amount”?

In commerce, payment may take the form of corporeal or incorporeal property. Gross income in sec. 1 of the *ITA* includes any revenue “amount, in cash or otherwise”. It is a trite principle, harking back to *Lategan v CIR*¹¹² that, in this context, “amount” includes “every form of property earned by the taxpayer, whether corporeal or incorporeal, which has a money value ... including debts and rights of action”. As explained in the preceding paragraph, and consistent with the COT’s approach in ruling 2014/26,¹¹³ Bitcoin is property: it is a digital unit capable of being stored in a wallet; the rights to it can be owned and transferred; the rights have value in commerce to its users and to traders of Bitcoin, and the rights can be proved by entries or postings in a digital ledger that records the historical chain of ownership.

Bitcoin functions as a medium of exchange. In *US v Petix*,¹¹⁴ the court, in dealing with the nature of Bitcoin for criminal law purposes, pointed out that, although it is not money as ordinarily understood, “Bitcoin operates as a medium of exchange like cash”, except that it is not issued nor protected by any sovereign power. Bitcoin, as a medium of exchange, ought to be included in the extended meaning of “amount” for gross income purposes. This view finds support in the following instructive *dictum* in *CIR v People’s Stores (Walvis Bay) (Pty) Ltd*,¹¹⁵ where the court dealt with the issue of whether non-cash items accrued to the taxpayer: “It is hardly conceivable that the Legislature could not have been aware of, or would have turned a blind eye to, the handsome profits often reaped from commercial transactions in which money is not the medium of exchange.”

Income received or accrued in a form other than cash (such as Bitcoin) must, to qualify for inclusion in gross income, be of such a nature that a monetary value, denominated in South African Rands, can be determined for it.¹¹⁶ An objective, not subjective, test applies to determine whether property has a value calculable in monetary terms.¹¹⁷ The method to be used for valuation depends entirely on the nature of the property and the circumstances of the case. Moreover, merely because the valuation process may involve complexity or difficulty does not detract from the

112 *Lategan v CIR* 1926 CPD 203:209. See also *CIR v Datakor Engineering (Pty) Ltd* 1998 4 All SA 414 (SCA):paras 16-22.

113 See 5.2 above.

114 *US v Petix* WL 7017919 (Western Division of New York, 1 December 2016):5. See also Lo & Wang “Bitcoin as money?”, 3-10, <https://scholar.harvard.edu/slo/publications/bitcoin-money> (accessed on 14 April 2019).

115 *CIR v People’s Stores (Walvis Bay) (Pty) Ltd* 1990 2 SA 353 (A):364A.

116 *Mooi v SIR* 1972 1 SA 675 (A):683 A-F. Under sec. 102(1)(a) of the *Tax Administration Act*, the onus is on a taxpayer to prove that income is not taxable in the sense, for example, that non-cash items does not have a readily ascertainable monetary value. See also *CSARS v Char-Trade 117 CC t/a Ace Parking* [2018] ZASCA 89 (31 May 2018):par. 14.

117 See, for example, *ITC 701* (1950) 17 SATC 108:109-111. See also Moosa 2011:3.

requirement that all non-cash income, having an ascertainable value in money, must be included in gross income.¹¹⁸

Although Bitcoin is not fiat currency,¹¹⁹ it has value as intangible, cyberproperty. Like cash, it is an accepted means of payment.¹²⁰ That Bitcoin has a monetary value is evident from the fact that it may be converted into real currency, and *vice versa*. However, Bitcoin's value is neither fixed nor constant, and its users do not attribute a common monetary value to it. Generally, Bitcoin's value is based on the subjective determination of its community of users. This makes valuation thereof complex. The problem is compounded by Bitcoin's value being somewhat volatile, due to speculative investments therein.¹²¹

Unlike the IRS's Notice 2014-21 and the ATO's published guidelines, the SARS media release provides no direction as to how a taxpayer may value cryptocurrency for tax reporting purposes. Although there is no uniform standard or method of measuring the monetised value of Bitcoin, its value ought, consistent with the practice in the USA and Australia, to be its fair market value in South African Rands as on the date of its receipt or accrual. In the absence of guidance from SARS, this value ought to be the average price for Bitcoin determined with reference to at least two Bitcoin pricing indices used or accepted in South Africa (such as Bloomberg)¹²² and/or a Bitcoin exchange operating in South Africa.

7. Conclusion

In everyday commerce, cryptocurrency such as Bitcoin can be received or accrued as *quid pro quo* for, *inter alia*, trading stock sold in the carrying on of any "trade",¹²³ or as a fee or reward for professional services rendered or to be rendered in respect of employment or the holding of an office,¹²⁴

118 *CIR v People's Stores (Walvis Bay) (Pty) Ltd*:364 I.

119 Kalbaugh 2016:28.

120 For a directory of businesses that accept or have accepted Bitcoin in South Africa, see <https://www.luno.com/blog/en/post/south-africa-pay-with-bitcoin> (accessed on 12 April 2019).

121 Seetharaman *et al.* (2017:237-238) state that "Bitcoin has no use value other than serving its role in the Bitcoin system". Consequently, Bitcoin's "value is determined only by the subjective valuation of users, exhibiting substantial volatility regarding official currency". See also Akins *et al.* 2014:28; Van Alstyne 2014:30.

122 Seetharaman *et al.* (2017:237-238) state that "Bitcoin's price is now on Yahoo Finance, Google Finance and Bloomberg".

123 "Trade" is defined in sec. 1 of the *Income Tax Act* as including "every profession, trade, business, employment, calling, occupation or venture, including the letting of any property and the use of or the grant of permission to use any patent as defined in the Patents Act or any design as defined in the Designs Act or any trade mark as defined in the Trade Marks Act or any copyright as defined in the Copyright Act or any other property which is of a similar nature".

124 See par. (c) of the "gross income" definition in the *Income Tax Act*:sec. 1.

or as consideration for a restraint of trade arising from employment or the holding of an office,¹²⁵ or in commutation of amounts due under any contract of employment.¹²⁶ This article shows that, if cryptocurrency is received or accrued as a revenue asset, its value in South African Rands on the date of such receipt or accrual, whichever occurs first, is subject to inclusion in the recipient taxpayer’s gross income under the *ITA*.

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125 See par. (cB) of the “gross income” definition in the *Income Tax Act*:sec. 1.

126 See par. (f) of the “gross income” definition in the *Income Tax Act*:sec. 1.

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