A CRITICAL ANALYSIS OF THE TAX TREATMENT OF CRYPTOCURRENCIES IN A SOUTH AFRICAN CONTEXT

A mini thesis submitted in partial fulfilment of the requirement for the degree of

MASTER OF COMMERCE (TAXATION)

of

RHODES UNIVERSITY

By

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May 2022

ABSTRACT

The aim of the present research was to investigate whether, as claimed by the South African Revenue Service in the media release issued in April 2018, the normal income tax provisions could apply to cryptocurrency transactions. To achieve this aim, a literature review was undertaken to describe the nature of cryptocurrencies and related crypto mining activities, providing definitions of cryptocurrencies, blockchains and crypto mining, as well as describing the functioning of the system. The research then proceeded to analyse the provisions of the definition of "gross income" in section 1 of the Income Tax Act, 58 of 1962, as amended, and the requirements of the "general deduction formula" in terms of the preamble to section 11, section 11(a) and section 23(g), as applying to cryptocurrency transactions. The application of other provisions in the Act to cryptocurrency transactions was analysed, including trading stock in terms of section 22, and capital allowances in terms of sections 11(e), 12C and 13*quin* of the Act, together with capital gains tax consequences in terms of the Eighth Schedule to the Income Tax Act. The regulation for income tax purposes of cryptocurrency transactions in Australia was discussed, with a view to making similar recommendations in South Africa.

The research was situated in the interpretative paradigm, a doctrinal methodology was applied, together with a qualitative analysis of documentary data. The discussion was limited to the income tax consequences of cryptocurrencies as applying to individuals.

The findings of the research were that, in general, the normal income tax provisions could apply to cryptocurrency transactions, but based on the analysis of the South African and Australian income tax acts as they apply to cryptocurrencies, it was recommended that a Comprehensive Guide on the income tax consequences of cryptocurrency transactions should be issued by the South African Revenue Service, together with amendments to section 25D and paragraph 43 of the Eighth Schedule to the Income Tax Act to deal with the conversion of cryptocurrencies to Rand values, and to section 9C of the Income Tax Act to include the deemed capital nature of the disposal of cryptocurrencies in the three-year rule presently applying to equity shares.

Key words: South African income tax, Australian income tax, cryptocurrencies, crypto mining, cryptocurrency investment and speculation.

ACKNOWLEDGEMENTS

Firstly, I would like to take this opportunity to thank my parents, Wen-Ching Ho and Hui-Mei Hsieh who have provided me with the support, love, and encouragement in pursuing my dreams and aspirations. They have been my guiding light and pillar of strength throughout my studies showing me that dedication and hard work will always pay its “dividend”. Thank you for always believing in me and pushing me to reach for the skies and to become the best person I can be.

Secondly, I would like to thank my partner, Claudia Des Fountain, for her everlasting support throughout my studies. Her undying love, support, and words of encouragement has kept me going through these tough times over the past few years whilst pursuing this degree, and for that I am eternally grateful.

Finally, I extend my sincere gratitude to my supervisor, Professor Elizabeth May Stack, for her continuous expert guidance and words of encouragement. I am honoured to have had her support me every step of the way through my Master of Commerce (Taxation). Thank you for your time and patience in moulding me to fulfil my fullest potential.

Malcolm Little once said, “Education is the passport to the future, for tomorrow belongs to those who prepare for it today”.

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GLOSSARY OF TERMS

Block	Compounded cryptocurrency transactions
Blockchain	Compounded genesis blocks of cryptocurrency transactions
Blockchain Asset Management	A shared record keeping and processing system
Cryptocurrency	Internet based digital currency, existing solely in the virtual realm
Cryptography	Digital software system developing algorithmic functions
Crypto Mining	Application of computer processing power to solve cryptographic functions
Decentralized	Operates independently outside of the control of a central regulatory authority
Hash	Mathematical algorithmic function
Nodes	Individual computers linked in a peer-to-peer network
Proof-of-Burn	A consensus mechanism for blockchains that operates by miners “burning” their cryptocurrency “coins” in return for the right to mine
Proof-of-Stake	A consensus mechanism for blockchains that operates by selecting validators in proportion to the stake provided for the right to mine
Proof-of-Work	Crypto miners competing to solve cryptographic algorithmic functions
Wallet	Transactional data storage platform

CHAPTER 1: INTRODUCTION

1.1 CONTEXT OF THE RESEARCH

Digitization of financial markets has brought with it various changes to digital transactions and the trade in currencies. This follows the release and launch of the first set of Bitcoins into the virtual currency community by Satoshi Nakamoto in 2008 (Gensler, 2021: Online). With the estimated value of the initial release of the eight-page *cypherpunk* mailing list and Bitcoin in 2008, the cryptocurrency had an estimated combined net value of $1.6 trillion (Gensler, 2021: Online).

Virtual currencies are a type of fund used and accepted in these virtual communities. Virtual currencies have been described by the Financial Action Task Force (2014: 4) as "a digital representation of value that can be digitally traded and functions as a medium of exchange, a unit of account and a store of value, but does not have legal tender status". This research will focus primarily on cryptocurrencies. "Cryptocurrency" refers to "a math based, decentralized convertible virtual currency that is protected by cryptography" (Wicht, 2016: 9). "These virtual currencies function by way of computerised algorithmic encryptions known as cryptographic keys, which denote an arbitrary unit of value to crypto-traders within the blockchain of each crypto-asset class" (Gaudamuz, 2014: 10). "Cryptography" is defined as "the development of encryption methods used to authorise transactions between parties without depending on a third party" (Sadhaseevan, 2019: 19). It is submitted that cryptocurrencies can be classified in various ways, such as an asset, a financial instrument, or currency.

Blockchains are the technology underlying cryptocurrency transactions and their transition into the digital virtual currency age. Blockchains are defined as: "a shared record keeping and processing system or public ledger account that records every cryptocurrency transaction that has been executed" (Plassaras, 2013: 385). The primary objective of blockchain asset management is the transition from the traditional banking approach to one that is decentralized, trusting in mathematics to authorize the transaction of cryptocurrencies (Atzori, 2017: 46).

Cryptocurrencies may be acquired through the process of "crypto mining". "Crypto mining" is a term used to describe the process whereby the miner provides the processing power of its computers to verify the successful transactions of any trade in cryptocurrency ascribed to a specific blockchain (Murphy, Murphy & Seitzinger, 2015: 2). The process of crypto mining also operates to insert new cryptocurrencies such as Bitcoin into the virtual currency platform and to the existing network currently in trade (Murphy *et al*, 2015: 2). The mining process also simultaneously verifies the cryptocurrency release along with any history related to cryptocurrency transactions that have taken place on the specified blockchain (Slattery, 2014: 837). During the crypto mining process, each miner's computer processing power is used by the network of blockchains to solve complex mathematical and algorithmic equations commonly known as a "hash" (Slattery, 2014: 837). The probability of a crypto miner discovering cryptocurrency whilst mining is based solely on the processing power that the miner's computer can provide in solving such complex hash equations (Murphy *et al*. 2015: 2). The diagram in section 2.4 of chapter 2 illustrates how the cryptocurrency network operates.

The introduction of cryptocurrencies as an alternative source of wealth and "asset class" has given rise to many uncertainties all around the world, with concerns for taxing authorities alike (Moosa, 2019: 13). Currently, there are no clear and decisive guidelines leading the discussion and classification of the nature in which cryptocurrencies are held and traded (Wilkinson, 2019: Online). Certain amendments were introduced into the South African Income Tax Act, 58 of 1962, as amended (the "Income Tax Act"), regarding the taxation of cryptocurrencies. The definition of a "financial instrument" in section 1 of the Income Tax Act was amended to include, in paragraph (f), a crypto asset. Previously cryptocurrencies were listed as financial instruments, but this was amended to crypto assets by section 2(1)(c) of the Taxation Laws Amendment Act, 23 of 2020, thus including cryptocurrencies and a broader range of crypto assets such as non-fungible tokens. The other amendment was the introduction of section 20A(2)(b)(ix). This amendment "ring-fences" losses arising from "the acquisition or disposal of any crypto asset". In a SARS Capital Gains Tax Guide issued on 5 November 2020, it was stated that "given their extreme volatility, cryptocurrencies are likely to be held as speculative assets of a revenue nature" (Lobban, 2021: Online).

The uncertainties regarding cryptocurrencies include the nature of such assets, trading in these assets, methods of valuation, etc., as reflected in a media release by the South African Revenue Service ("SARS") on 6 April 2018 (Moosa, 2019: 14). The Media Release on 6 April 2018 (SARS: Online), stated that "The South African Revenue Service (SARS) will continue to apply normal income tax rules to cryptocurrencies . . .", and "there is an existing tax framework that can guide SARS and affected taxpayers on the tax implications of cryptocurrencies". Furthermore, "cryptocurrencies are regarded by SARS as assets of an intangible nature". The Media Statement elaborates as follows:

(i) [C]ryptocurrencies can be valued to ascertain an amount received or accrued as envisaged in the definition of "gross income" in the Act. [Various investment houses and professionals in South Africa, however, believe that there are no intrinsic values that can be attributed to cryptocurrencies, as claimed by Jean-Pierre Verster, founder of Protea Capital Management (Rowe-Roberts, 2021: Online).

(ii) Income received or accrued from cryptocurrency transactions can be taxed on revenue account under "gross income". Alternatively, such gains may be regarded as capital in nature, as spelt out in the Eighth Schedule to the Act.

(iii) The determination of whether an accrual or receipt is revenue or capital in nature is tested under existing jurisprudence (of which there is no shortage).

(iv) Taxpayers are also entitled to claim expenses associated with cryptocurrency accruals or receipts, provided such expenditure is incurred in the production of the taxpayer's income and for purposes of trade.

(v) Base cost adjustments can also be made if [the acquisition and disposal of crypto assets falls] within the CGT paradigm.

SARS's claim that cryptocurrencies are "financial instruments" and therefore assets as defined in paragraph 1 of the Eighth Schedule to the Income Tax Act, enables SARS to levy Capital Gains Tax on cryptocurrency transactions, whereas fiat currencies are excluded as "assets" and therefore capital gains tax will not apply. As is the case with any SARS Guide, a SARS Media Release is not a binding ruling or statement of law in terms of section 5 of the Tax Administration Act, No. 28 of 2011, as amended. In *Marshal NO and Others v C:SARS,* CCT 208/17 [2018] ZACC, it was held (at 11) that: "Deference to an administrative body's own interpretation of the meaning of a statute which it is responsible for implementing should be avoided, particularly when the administrative body is party to the litigation."

Despite the provisions of the Media Release by SARS and the amendments to the Income Tax Act, there remain several problematic issues.

- The problem raised regarding the interpretation of the SARS Media Release was whether SARS had correctly categorised cryptocurrencies as "non-cash assets of an intangible nature capable of receipt or accrual for tax purposes" (Moosa, 2019: 14). There are so many similarities between cryptocurrencies and fiat currencies (which are not "assets" for the purpose of income tax) that it is difficult to justify the different tax treatment. It is also clear that cryptocurrencies have attributes that are very different to other "financial instruments” such as shares, interest-bearing investments, debentures, or participatory interests in a portfolio of a collective investment scheme, all of which promise a return in the form of interest or dividends.

- Furthermore, it is submitted that defining all crypto assets as financial instruments, does not reflect the true nature of crypto assets, other than cryptocurrencies. Non-fungible tokens are crypto assets and include things like a unique digital artwork, a unique sneaker in a limited-run fashion line, an in-game item, an essay, digital collectibles, a domain name, or a ticket that gives you access to an event or a coupon (Ethereum: Online).
- Speculating in cryptocurrencies may raise questions regarding the application of the provisions of section 22 of the Income Tax Act, which deals with the taxation of trading stock. Cryptocurrencies held as trading stock would require to be valued at cost (in Rand) on the date of acquisition and at the end of each year of assessment in determining the value of the opening and closing stock of the currency for gross income purposes. The value of cryptocurrency trading stock (as a financial instrument) cannot be written down, however.
- SARS has yet to issue concrete guidance regarding its view on cryptocurrency transactions and the difference between capital transactions with investment intentions, as opposed to speculative trading of this asset class (Lobban, 2021: Online). Basing the classification on existing case law may not provide the appropriate answer.
- Currently there is no tax legislation or guidance issued by SARS regarding the conversion to Rand of cryptocurrency [or *vice versa*] (Wicht, 2014: 10). The extreme volatility of these currencies may mean that, on the date of the transaction, the value converted to Rand in terms of section 25D may fluctuate widely (for the purpose of the definition of “gross income”, section 11(a), the value of trading stock in terms of section 22, or for the purpose of paragraph 43 of the Eighth Schedule to the Income Tax Act). Would the value have to be determined at midnight on the particular date?
- Infrastructure, such as computers purchased for crypto mining, should qualify for a capital allowance in terms of the Income Tax Act.
- Finally, losses from crypto mining are also “ring-fenced” in terms of section 20A(2)(b)(ix) of the Income Tax Act, as is the case with the acquisition or disposal of any crypto asset.

As Australia has tax legislation that is similar to South African tax legislation, both being based broadly on British law, and Australia is one of the leaders regarding regulation of cryptocurrencies and crypto assets (Jose & Kaye, 2021: Online), the present research will analyse tax provisions dealing with cryptocurrencies in Australian legislation.

This research therefore aims to investigate the practical application of the manner in which cryptocurrencies and their "mining" could be subject to income tax in the hands of South African resident natural persons, as taxpayers.

1.2 GOALS OF THE RESEARCH

The primary research goal is to investigate the practical implications of the tax treatment of cryptocurrencies and crypto mining in South Africa. In achieving the main research goal, the following sub-goals are addressed:

(a) describing the nature of cryptocurrencies and related crypto mining activities;
(b) discussing the practical application of provisions in the Income Tax Act in relation to mining, investing in, or trading cryptocurrencies;
(c) discussing the practical income tax implications of cryptocurrency transactions in Australian legislation; and
(d) making recommendations relating to the taxation of cryptocurrencies and the mining of these currencies in South Africa.

1.3 METHODS, PROCEDURES AND TECHNIQUES

This research is situated within the interpretivist paradigm, as all elements of the research are based on documentary data, which are interpreted using qualitative data analysis (Leedy & Ormrod, 2005: Online). This research is based purely on the analysis and interpretation of tax legislation, academic theses, journal articles, government publications, case law, and newspaper articles, therefore making this research study qualitative in nature (Leedy & Ormrod, 2005: Online). The research method that is adopted for the study is a legal interpretive approach; more specifically, a doctrinal research methodology. This methodology provides a systematic exposition of the rules governing a particular legal category (in the present case, the income tax legislation dealing with cryptocurrencies), analyses the relationships between the rules, explains areas of difficulty and is based purely on documentary data (McKerchar, 2008:

Online). This study is conducted in the form of an extended natural language argument supported by logical reasoning.

1.4 ETHICAL CONSIDERATIONS

As all the documentary data used for the present research are publicly available, no application for ethical clearance was made using the Rhodes University ERAS system. An application for ethical clearance was made to the Accounting Department Ethical Committee, and approved by the committee.

1.5 OVERVIEW OF THE CHAPTERS

Chapter 2 briefly explains the context of the research, deals with the first sub-goal of the research by defining cryptocurrencies and crypto mining, describing the technical concepts associated with cryptocurrencies and related transactional protocols followed with regard to cryptocurrencies.

Chapter 3 addresses the second sub-goal of the research by providing a detailed analysis of the application of the provisions of the Income Tax Act, with specific focus placed the tax consequences of earning income from cryptocurrency mining and trading in terms of the definition of "gross income" in section 1 of the Income Tax Act. Other issues, including capital gains tax, the application of trading stock provisions and the tax consequences of cryptocurrency mining partnerships, are dealt with briefly.

In continuing to address the second sub-goal of the research, chapter 4 discusses the practical application of the "general deduction formula" of the Income Tax Act with regard to the mining and trading of cryptocurrency, together with a brief discussion of the provisions of section 20 and section 20A in relation to assessed losses incurred from cryptocurrency trades and the ring-fencing of these losses. Other provisions, including the trading stock provisions, tax consequences of partnerships and capital gains tax are briefly discussed.

Chapter 5 deals with both the third and fourth sub-goals of the research, firstly discussing the Australian tax legislation governing cryptocurrency trades, which the South African National Treasury and SARS could consider adopting to tax cryptocurrency, and in an effort to combat possible tax evasion through the use of cryptocurrencies. Recommendations regarding the taxation of cryptocurrencies in South Africa are then presented.

Chapter 6 concludes the thesis, by highlighting the research goals, summarising the findings in each chapter, identifying limitations of scope and opportunities for future research.

CHAPTER 2: AN INTRODUCTION TO CRYPTOCURRENCIES AND THEIR APPLICATIONS

2.1 INTRODUCTION

In addressing the first sub-goal of the research, this chapter provides definitions of cryptocurrencies, blockchain asset management, and crypto mining activities. Although the crypto asset "world" has introduced a myriad of new terminology, only the definitions that are pertinent to considering the tax consequences are dealt with in the chapter. The chapter further considers the concept of cryptocurrency transaction processing within the blockchain asset management domain, where virtual currencies are traded. In addition, this chapter provides background into cryptocurrencies by way of considering (i) the cryptocurrency exchange system, and (ii) the process of obtaining cryptocurrencies within the crypto asset blockchain for miners, investors, speculators, and merchants alike. Finally, the chapter discusses the opportunities created by the use of cryptocurrencies for disguising the proceeds of criminal activities, and for tax evasion and capital flight. These uses of cryptocurrencies have focused the attention of the authorities on the need for the regulation of these currencies.

2.2 CRYPTOCURRENCIES, BLOCKCHAIN ASSET MANAGEMENT AND CRYPTO MINING

2.2.1 Cryptocurrency Defined

Currently, the term "cryptocurrency" has no firm definition in the South African context, and the use of the term "cryptocurrency" varies amongst institutions and the various financial regulators. SARS refers to cryptocurrencies as: "internet based digital currencies existing wholly in the virtual realm" (SARS, 2018: Online). Following the recognition of the term in 2018, SARS elected to amend "cryptocurrency" to "crypto asset" in the definition of a "financial instrument" in section 2(1)(c) of the Taxation Laws Amendment Act, thus adopting a uniform definition of these asset classes within the South African regulatory framework.

By contrast, the South African National Treasury (2014: 1-2) refers to cryptocurrencies as follows:

> A virtual currency is a unit of account that is digitally or electronically created and stored. Members of the virtual community agree to accept these units as a representation of value in the same way that currency is accepted. In contrast to traditional currencies, virtual currencies operate without the authority of central banks, and are therefore not regulated.

> An example of a virtual currency is Bitcoin, which has become popular and widely used; ... A virtual currency such as Bitcoin allows users to purchase goods and services without using a government-backed currency so long as participants are willing to accept Bitcoins as a form of payment. Bitcoin is software based and uses peer-to-peer technology to operate without the involvement of the central bank or commercial banks.

Cryptocurrencies are referred to by the South African Reserve Bank (SARB, 2014: 2) as "decentralised convertible virtual currencies that interact with the real economy". Following that, a statement was issued by the SARB stating that, "crypto assets are not legal tender in South Africa, so any merchant or beneficiary may refuse them as a means of payment" (SARB, 2014: Online).

In addition, the Financial Action Task Force (2014: 4) in its publication "Virtual Currencies Key Definitions and Potential AML/CFT Risk Report", has adopted the same definition as provided by the SARB in its published Position Paper on Virtual Currencies. The definition states that virtual currencies are "a digital representation of value that can be digitally traded and functions as a medium of exchange, a unit of account and a store of value, but does not have legal tender status".

The varying definitions ascribed to cryptocurrencies are evidence that uncertainty remains in the South African context and that no firm definition currently exists in South Africa (Sadhaseevan, 2019: 18). The South African financial regulators need to obtain a critical understanding of cryptocurrencies and the concomitant industry, before a firm and universal definition for cryptocurrencies can be obtained, consequently minimizing, and avoiding regulatory arbitrage with varying definitions of one asset class across the South African financial regulatory sector (Sadhaseevan: 2019: 18).

2.2.2 Technical Concepts Associated with Cryptocurrencies

The concept of cryptocurrencies and their digital platforms can be summarised in one concise definition. In summary, these virtual currencies could be regarded as a form of decentralised convertible virtual currency protected by cryptography, which functions solely through a global chain of computerised digital ledger accounts known as a blockchain (SARB, 2014: 2-4).

(a) Decentralised

Cryptocurrencies are a decentralized form of wealth not controlled by a federal or national reserve bank (a Central Regulatory Authority) (Nieman, 2015: 1983). This contrasts with a fiat currency, as recognised in South Africa in the definition of an "asset" in paragraph 1 of the

Eighth Schedule to the Income Tax Act (and excluded as an asset), and such “real currencies” are recognised and regulated by a central regulatory authority, the SARB. The digitized platforms authorising trades in cryptocurrencies have replaced the function of such central regulatory authorities by making their function in the process redundant (He *et al*, 2016: 9). The conventional third-party function has now been replaced by a built-in framework of internal protocols allowing simultaneous verification of a specific transaction on the specified platform, without the need to consult a central regulatory authority in the process (He *et al*, 2016: 9).

(b) *Convertible*

Digital currencies like cryptocurrencies are convertible assets, where goods and services can be delivered in exchange for cryptocurrencies (SARB; 2014: 4). The convertibility of cryptocurrencies to consumable goods or services lies predominantly in what a willing buyer is willing to offer and what a willing seller is willing to let the item go for (Financial Action Task Force, 2014: 5). In essence, the convertibility of such cryptocurrencies entails more of a bargaining transaction than modern conventional trade. Thus, the convertibility and trade in cryptocurrencies is not guaranteed by any central regulatory authority or law (Financial Action Task Force, 2014: 5).

(c) *Cryptography*

Cryptography is the system that develops algorithmic equations within a set network of communication channels facilitating the secure administration and creation of cryptocurrency transactions (Murphy *et al*, 2015: 2). In essence, cryptography encourages the bypassing of any central regulatory authority’s input when authorising a transaction (Murphy *et al,* 2015: 1). This ensures that the identities of cryptocurrency speculators remain anonymous throughout the transaction process (Plassaras, 2013: 385).

(d) *Blockchain Asset Management*

Blockchains are the technology underlying cryptocurrency transactions and their transition into the digital virtual currency. Blockchains are defined as: “a shared record keeping and processing system or public ledger account that records every cryptocurrency transaction that has been executed” (Plassaras, 2013: 385). The primary objective of blockchain asset management is the transition from the traditional banking approach to one that is decentralized, trusting in mathematics to authorize the transactions of cryptocurrencies (Atzori, 2017: 46).

(e) Crypto mining

Cryptocurrencies may be acquired through the process of "crypto mining". "Crypto mining" is a term used to describe the process whereby the miner provides the processing power of its computers to verify the successful transactions of any trade in cryptocurrency ascribed to a specific blockchain (Murphy *et al*, 2015: 2). The process of crypto mining also occurs when the virtual currency platform inserts new cryptocurrencies such as Bitcoin into the existing network currently in trade (Murphy *et al*, 2015: 2), by rewarding the successful verification of transactions with Bitcoins. The mining process also simultaneously verifies the cryptocurrency release along with any history related to cryptocurrency transactions that have taken place on the specified blockchain (Slattery, 2014: 837). During the crypto mining process, each miner's computer processing power is used by the network of blockchains to solve complex mathematical and algorithmic equations commonly known as a "hash" (Slattery, 2014: 837).

2.3 FUNCTIONING OF THE CRYPTOCURRENCY SYSTEMS

Trade in cryptocurrencies relies solely on cryptography (Murphy *et al,* 2015: 1). Cryptography as defined, are platforms that facilitate the secure authentication and administration of cryptocurrencies within specified blockchains, hidden from the view of third parties (Murphy, *et al.* 2015: 1). Anonymity of users is ensured through the issuance of a directly unrelated encryption unique identifier code (Murphy *et al*, 2015: 1).

"Trading and spending" cryptocurrencies simply denote the transfer of cryptocurrencies from one user to another within a specified network of trade (Bal, 2014: 56). The trade and spending of cryptocurrencies could simply be compared to electronic fund transfers on a banking platform, without the complexities associated with the authorization by a central regulatory authority. Upon the authorization of a specified trade in cryptocurrency, the transactions are compounded and bound together (Bal, 2014: 56). The process of compounding and binding cryptocurrency trades creates a block, blocks are linked together to form a chain, originating from the original single block known as a "genesis block" (Akins, Chapman & Gordon, 2014: 30). The linked blocks are what is known as a blockchain (Plassaras, 2013: 385). Blockchains create databases of all approved cryptocurrency transactions and record the specific transaction on the public ledger (Murphy *et al*, 2015: 1). Public ledgers are visible to all users of the relevant trade platforms; however, personal details of any cryptocurrency trader remain anonymous via the cryptography network of systems (Murphy *et al*, 2015: 1).

Users intending to invest or speculate in such currencies are required to download the relevant trade platforms available to the public to gain access to these blockchains and public ledgers (Akins *et al*, 2014: 30). These platforms enable the successful connection of devices to the decentralized peer-to-peer network of systems that ultimately connect to the relevant cryptocurrency system, using nodes (Akins *et al*, 2014: 30). Nodes are individual user computers linked to the specified peer-to-peer network and used to solve complex mathematical and algorithmic equations (Akins *et al*, 2014: 34). The process of solving the complex equations is conducted by way of a trial-and-error approach, matching cryptographic information to current and prior transactional data in a specified blockchain (Akins *et al*, 2014: 34).

The transfer of the cryptocurrency file via the exporting node to the recipient only takes place by electronic means (Akins *et al*, 2014: 30). The transactional data can be stored on a platform commonly known as a trader's "wallet" in two digitized forms (Akins *et al*, 2014: 30). Once the cryptocurrency file has been successfully transferred from the processor's node, the traded cryptocurrencies are deposited and stored in the recipient's wallet (Akins *et al*, 2014: 30). The processor's transactional data is captured and stored on their personal computer domains or in an online database (Akins *et al*, 2014: 30). Both storage facilities serve the same function of a wallet, as defined (Akins *et al*, 2014: 30). Public and private cryptographic keys are allocated to both types of wallets, facilitating trade, recording the process, and maintaining user anonymity (Akins *et al*, 2014: 31).

The public cryptographic key's main function provides users the functionality of purchasing and selling of cryptocurrency, with the sole objective of sending and receiving any traded cryptocurrency (Akins *et al*, 2014: 31). Despite the public interaction by the cryptographic public key, user information remains secure (Akins *et al*, 2014: 31). The sending and receiving action by the cryptographic public key only transmits the relevant cryptocurrency information in trade with the non-disclosure of personal user information in the process, maintaining anonymity (Akins *et al*, 2014: 31). Private cryptographic keys facilitate the authorization of a specified cryptocurrency trade between the sending and receiving parties of the transaction (Akins *et al*, 2014: 31). Upon authorization of a trade via the private key, the transactional data are submitted to the peer-to-peer network and recorded on the blockchain in which the trade has taken place (Akins *et al*, 2014: 31).

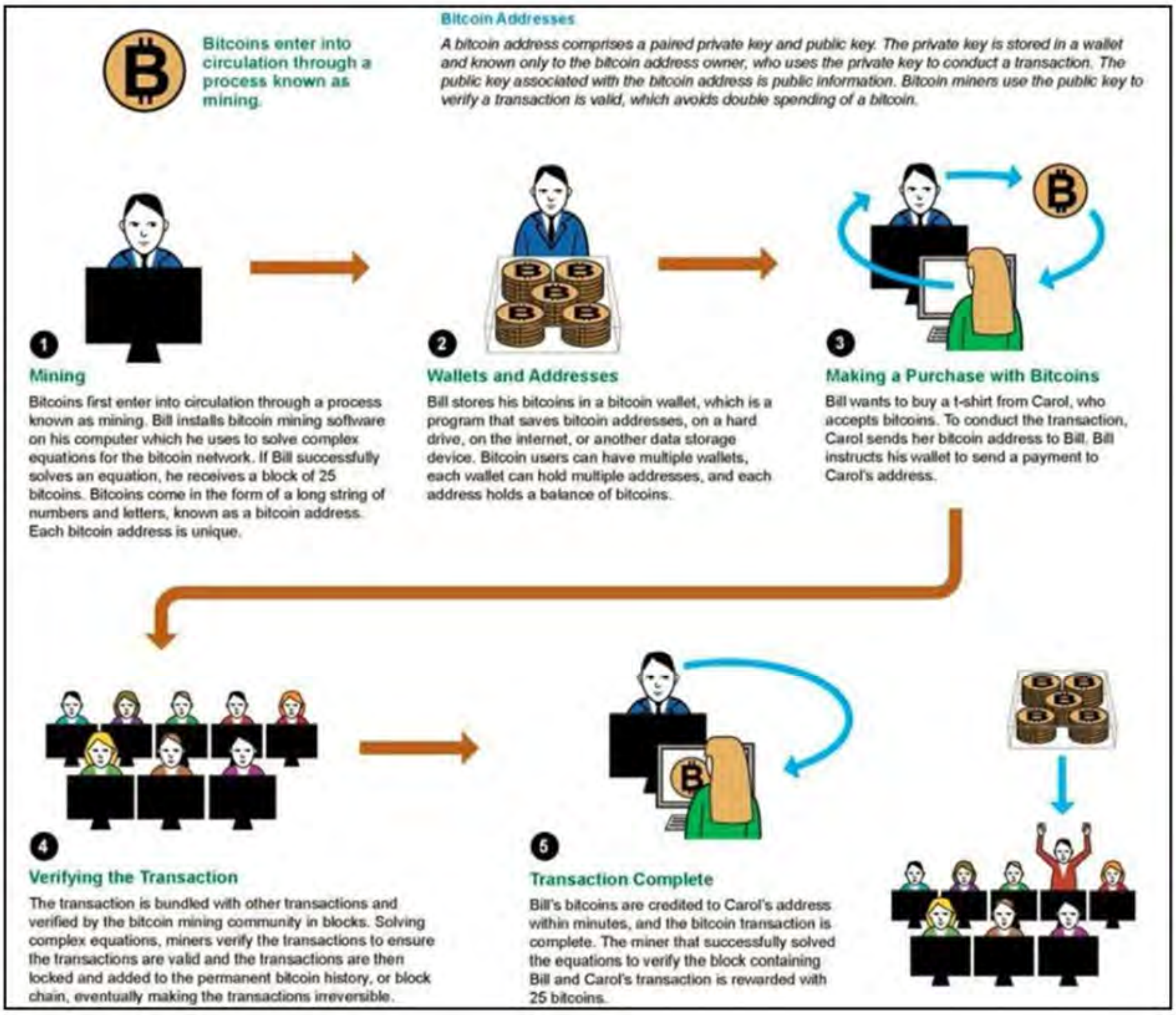
2.4 THE ACQUISTION PROCESS OF CRYPTOCURRENCY

Cryptocurrencies are traded exclusively through three electronic means (Akin, 2014: 30). Investors and speculators in cryptocurrencies can convert fiat currencies to cryptocurrencies using a crypto exchange (Slattery, 2014: 837). The price of cryptocurrencies is dependant primarily on a demand and supply basis of a specified cryptocurrency in trade (Murphy *et al*, 2015: 2).

The second alternative method available to investors and speculators in cryptocurrency is through the exchange of cryptocurrency in return for the supply or acquisition of goods or services, in essence where a merchant accepts cryptocurrency in exchange for goods or services (Murphy *et al*, 2015: 2). Developments in digitalized trading have given many entities the opportunity to trade in cryptocurrency by way of accepting cryptocurrencies as payment in exchange for goods and services (Murphy *et al*, 2015: 2). A prime example of this development in South Africa was when PricewaterhouseCoopers Inc announced by way of a media release its acceptance of Bitcoin as payment for the services rendered to their clientele (Kuhn, 2019: Online).

Finally, cryptocurrencies can be acquired through the process of crypto mining (Murphy *et al*, 2015: 2). Crypto mining is a process where miners provide their computer processing power to verify cryptocurrency transactions on the public ledger through a specified blockchain (Murphy *et al*, 2015: 2). The crypto mining process is a term used to describe the process whereby new cryptocurrencies are released into current circulation in exchange for the computer processing power of the miner used to verify cryptographic algorithmic equations, commonly known as "nodes" (Slattery, 2014: 837). This process occurs during a verification process to verify historical cryptocurrency trades in the specified blockchain and public ledger (Slattery, 2014: 837). The likelihood of success in this process is highly dependent upon the processing power that a miner's computer can offer to solve a cryptographic node (Murphy *et al*, 2015: 2). The greater the crypto miner's computer processing power that is provided to the crypto blockchain and public ledger, the greater the probability of success in finding cryptocurrencies through crypto mining (Murphy *et al*, 2015: 2). Figure 2.1 provides a diagram illustrating the process of acquiring Bitcoins, holding Bitcoins in a "wallet", payment using Bitcoins, and verifying the transaction.

Figure 2.1: Diagrammatic Representation of Bitcoin Activities



Source: Organisation for Co-Operation and Development (2015: 43)

2.5 DETERMINATION OF CRYPTOCURRENCY PRICES

The gains achieved or losses suffered by investors or speculators in cryptocurrencies are directly linked to their prices. These gains or losses have tax consequences. Price determination of cryptocurrencies relies heavily on the economic equilibrium price model, in theory representing what a willing buyer and seller are prepared to give up in exchange for the commodity under consideration (Duignan, 2021: Online). The greater the supply of a specified cryptocurrency, the less demand exists in the crypto market, resulting in a decreased price (Slattery, 2014: 837). On 7 November 2021 at 21:40 GMT the price of Bitcoin was R962 800.00, compared to Shiba Inu, at R0.00088440. The vast difference in the cost price between the two cryptocurrencies is directly attributable to the supply in circulation proportionate to the demand (Duignan, 2021: Online). Bitcoin currently has a net circulation of 18.866 million (Blockchain.com, 2021: Online). This in stark contrast to Shiba Inu, with a net 1 quadrillion coins in circulation (Locke, 2021: Online).

The law of demand indicates that consumers and investors will purchase more of a specific product when the prices are low or declining, and less when prices increase (Janse van Rensburg, McConnell & Brue, 2011: 52). Cryptocurrencies are no different from consumable commodities and investment property in that the amount in demand varies from one cryptocurrency to the next, depending on the demand and supply of a specified cryptocurrency class (Slattery, 2014: 837).

2.6 DIFFERENT VARIATIONS OF CRYPTOCURRENCIES

Cryptocurrencies are categorised into three generations, namely first, second and third generations (Spurjeon, Sahu, Dutta, 2018: 643). Understanding the different generations of cryptocurrencies is vital for financial regulators and tax authorities, such as SARS, in their design of a fool-proof approach to taxing cryptocurrency transactions, together with any potential measures to be considered when remedying possible tax leakages (Jabontinsky, 2018: 12).

2.6.1 First Generation Cryptocurrencies

First generation cryptocurrencies are the primary modes of application, leading the decentralization of third-party based payment transactions within a blockchain of integrated trades on the registered public ledger (Swan, 2021: 21). Examples of first-generation cryptocurrencies include Bitcoin and its alternative coins (Alt-coins), such as Litecoin, Namecoin, etc. (Spurjeon *et al*, 2018: 643).

As a first generation cryptocurrency, Bitcoin pioneered the current global trend in cryptocurrency trades and investments (Spurjeon *et al*, 2018: 643). The first recorded release of cryptocurrencies was in 2008 in a White Paper by an organised group of hackers using the alias Satoshi Nakamato, entitled “Bitcoin: A Peer-to Peer electronic cash system” (Gensler, 2021: Online). The article accounts for and defines Bitcoin as, “A purely peer-to-peer version of electronic cash which allows online payments to occur directly from one party to another, without relying on a trusted financial institution.” (Gensler, 2021: Online).

Altcoins, as derivatives of their first-generation cryptocurrency, Bitcoin (Spurjeon *et al*, 2018: 643), emerged from several modifications that were made to the Bitcoin node of chains and key defining parameters of the cryptocurrency (Pirjan, Petrosanu and Huth, 2015: 4). Altcoins are borrowed from Bitcoin with altered key parameters to its encryption and digital code (Hileman & Rauchs, 2017: 17). Therefore, the first-generation cryptocurrency status of Altcoins was retained (Spurjeon *et al*, 2018: 643). The same functional blocks that govern the relevant chains are used by Altcoins as is the case with Bitcoins, therefore, no significant variations occur between the cognitive digital make-up of Bitcoin and its counterpart Altcoin (Pirjan, *et al*, 2015: 5). Notable variations to the digital encryption code of Altcoins that have introduced changes and innovations to the traditional Bitcoin model do exist, and these innovations are apparent in the Litecoin sphere (Pirjan, *et al*, 2015: 5). In the case of Litecoin, it employs a different mining algorithm, which increases the confirmation time for the specified transaction processed on the relevant blockchain and recorded on the public ledger (Hileman & Rauchs, 2017: 17).

2.6.2 Second Generation Cryptocurrencies

Second generation cryptocurrencies are known to be smarter than their predecessor first generation cryptocurrencies, and contain two major modifications and differences to their first-generation counterparts (Spurjeon *et al*, 2018: 643-644). Firstly, they allow for the incorporation of programming language on the blockchain, allow for the processing of smart contracts between traders and speculators of second-generation cryptocurrencies, followed with decentralised applications between the parties to the transaction (Spurjeon *et al*, 2018: 643). Second generation cryptocurrency transactions aim to make transactions smaller, whilst in the same process ensuring that the transactions are secure (Spurjeon *et al*, 2018: 643). Lastly, second generation cryptocurrencies, which include Ethereum, Sky Coin and Sparkle Coin, have reduced scalability issues due to the scaled down transaction size (Spurjeon *et al*, 2018: 643-644).

The study by Spurjeon *et al* (2018: 644) includes an analysis of the structured application of second-generation cryptocurrencies, with the primary focus placed on Ethereum:

> Ethereum is an open-source, public, blockchain-based distributed computing platform featuring smart contract (scripting) functionality. It provides a decentralized Turing-complete virtual machine, the Ethereum Virtual Machine (EVM), which can execute scripts using an international network of public nodes. Ethereum also provides a cryptocurrency token called "ether", which can be transferred between accounts and used to compensate participant nodes for computations performed.

2.6.3 Third Generation Cryptocurrencies

Currently, few cryptocurrencies are classified as third generation cryptocurrencies despite all registered cryptocurrency generations competing and modifying their digital constructs to be regarded as a third-generation cryptocurrency (Spurjeon *et al*, 2018: 644). The primary objective of the third generation is the need for and the establishment of a governance system, reduced scalability, and interoperability across specified blockchains and the registered public ledger (Spurjeon *et al*, 2018: 644). Interoperability facilitates the transparent interactions of cryptocurrency classes amongst themselves and in a specified blockchain of cryptocurrencies (Spurjeon *et al*, 2018: 644). Limited examples of third generation cryptocurrencies exist currently, with many still in prospect of becoming considered as third-generation cryptocurrencies (Spurjeon *et al*, 2018: 644).

Cardano has been classified as a third-generation cryptocurrency and ranks amongst the top ten of all cryptocurrencies traded globally (Spurjeon *et al*, 2018: 644). It was launched in 2017 by the co-founder of Ethereum, Charles Hoskinson, in coalition with Input Output Hong Kong (Gecgil, 2021: Online). Cardano operates on and facilitates the use of Ouroboros algorithms, also known as proof-of-stake blockchain consensus protocols (Lopez de Lara, 2019: Online). Ouroboros algorithmic protocols provide for both permissionless and permissioned blockchains, addressing the drawbacks associated with both the first and second generations of cryptocurrency (Lopez de Lara, 2019: Online). The Ouroboros algorithmic protocols enable the creation of multiple blockchains at random, while simultaneously handling scaled down large transactions (Lopez de Lara, 2019: Online).

2.7 CRIMINAL ACTIVITIES AND TAX EVASION ASSOCIATED WITH CRYPTOCURRENCIES

Cryptocurrencies provide opportunities to “hide” the proceeds of criminal activities and to evade tax. This has fuelled the drive by governments to regulate the trade in these currencies.

2.7.1 Criminal Activities

A key feature of cryptocurrencies that aids criminal activities is its secure and anonymous trading nature (Guadamuz, 2014: 10). The secure and anonymous nature of the transferability of cryptocurrencies on the “peer-to-peer” network allows criminals to undertake illegal transactions without any repercussions, as these transactions cannot be traced back to the processor and receiver (Guadamuz, 2014: 10). The decentralized mode of transacting is fuelled largely by two keys, the public and private cryptographic keys. Units of value in the form of cryptocurrencies are only transferrable between user wallets by the wallet owners, using the secure cryptographic private and public keys, with the keys themselves making all cryptocurrency transactions anonymous in nature (Guadamuz, 2014: 10).

Criminal activities associated with the use of cryptocurrencies are aggravated through the ease in which cryptocurrencies can move across borders and the speed with which transactions are processed and finalized (Rooney, 2021: Online). Therefore, the ease with which cryptocurrencies are traded across borders, accompanied by the decentralized anonymity shield, and concealed consumer information, provides fertile ground for criminal activities to take place (Rooney, 2021: Online).

The complete lack of statutory laws and regulations dealing with cryptocurrencies has allowed criminal activities to run rampant without legal repercussions (Guadamuz, 2014: 11). Criminal activities associated with this sort of digital currency include phishing scams, money laundering and the funding of narcotic drug trades (Guadamuz, 2014: 11). The anonymous nature of cryptocurrencies accompanied with its global trade status affords criminals the opportunity to conceal and expand their underground black-market operations (Guadamuz, 2014: 28). Transactions associated with these activities are of such a nature that they provide criminals with the opportunity to "wash" funds and turn them into fiat currency where they can convert, transfer, and withdraw the respective funds and redistribute them into the financial markets as clean fiat currency (Guadamuz, 2014: 10).

The Silk Road is an example of such a platform on the black market that allowed and facilitated transactions through an online marketplace (Cristin 2012: 3). The Silk Road was founded in February 2011 and shut down in 2013 when the relevant authorities arrested its founder, Ross Ulbrich (Cristin 2012: 3). The Silk Road provided users the infrastructure to conduct and process transactions on the secure anonymous platform, with Bitcoin nominated as the transactional currency (Cristin 2012: 1). Studies conducted by Carnegie Mellon University revealed that transactions of approximately $12 million in monthly sales revenue via the Silk Road were concluded, with narcotics leading the monthly turnover and Bitcoin as the primary transactional currency (Cristin 2012: 3-4). The Silk Road was not only involved in illicit drug trades but expanded its marketplace to include, "forgeries" of government issued documents, including identity documents, passports, and drivers' licences (Coindesk, 2014: Online).

2.7.2 Tax Evasion

Tax evasion has been an ever-growing trend amongst taxpayers (Emery, 2016: 24). Tax evasion may occur in numerous forms, including the under declaration or non-disclosure of cash transactions (Emery, 2016: 24). The primary issue associated the enforcement of tax laws by regulatory authorities is the difficulty associated with the tracing of cryptocurrency transactions arising from the near untraceable nature of the decentralized quasi-anonymous transaction processes (Emery, 2016: 24). Each transactional trade processed through the public and private cryptographic keys by crypto traders maintains anonymity of the transactions (Emery, 2016: 24). Crypto traders can therefore directly and indirectly misuse and abuse the provisions of the Income Tax Act by way of non-disclosure, resulting in the evasion of tax (Kruger *et al*, 2012: 28).

In addition to the potential facilitation of tax evasion, cryptocurrencies lack jurisdictional nexus (Marian, 2013: 40). This results in issues associated with the clear identification of the source of profits, consumption of services, and the source from which the deliverables have been processed and delivered (Marian, 2013: 40). These issues are key focus areas of the Organisation for Economic Cooperation and Development *Base Erosion and Profit Shifting Project* (Marian, 2013: 40). Cryptocurrencies' jurisdictional omnipresence has eroded jurisdictional clarity on a sovereign State's taxing rights to such digital currencies, as cryptocurrencies lack the direct link to a specific country, state or location, their existence being purely in digital form connected through blockchains on the public ledger (Marian, 2013: 40). Consequently, transactions subjected to tax contention or tax avoidance measures may in decentralized digital form escape the tax jurisdiction and escape any legal consequences that may arise (Marian, 2013: 40).

The challenges faced by revenue authorities across the world in bringing cryptocurrency transactions to account, create tax havens by offering "an environment with no or only nominal taxation" in which activities are not usually subject to information exchange (Marian, 2013: 42). In the case of cryptocurrency transactions, this process is aided through the decentralized quasi-anonymous transaction system which processes all cryptocurrency trades with very limited Financial Intelligence Centre Act (FICA) documentation requirements (Marian, 2013: 42).

Despite the legitimate purposes for which cryptocurrencies are used, such as capital investment, cryptocurrencies are still well suited to support illegal undertakings (Marian, 2013:

42). Cryptocurrencies across the three generation types possess three fundamental characteristics of a traditional tax haven (Marian, 2013: 42). Firstly, cryptocurrencies do not operate in a specific tax jurisdiction, they are held on digital account in a "wallet", and therefore not subject to the source principles (Marian, 2013: 42). Secondly, cryptocurrency accounts are anonymous in nature: users are not required to provide registered FICA details upon processing any transaction and upon registration on specified trade platforms (Marian, 2013: 42). Lastly, the most profound trait is that cryptocurrencies can operate independently from central financial intermediaries such as reserve and commercial banks (Marian, 2013: 42).

Therefore, tax authorities are limited in their approach when combatting tax evasion through the reliance and use of financial intermediaries (Marian, 2013: 42). Given the limited spectrum of FICA information required by trade platforms and service providers when setting up a trading account, these measures open loopholes for tax abuse and tax avoidance (Marian, 2013: 42). It is nearly impossible to trace the earnings accumulated by investors in and speculators of cryptocurrencies to the individuals requesting the trade, as the information provided upon creating a wallet is extremely limited and authorities are unable to detect the use of aliases (Marian, 2013: 42).

2.8 CAPITAL FLIGHT: A MODERN THEME OF CRYPTOCURRENCIES

Capital flight is a phenomenon described in economics as "large outflows of assets and/or capital from a country due to some events, resulting in negative economic consequences to that country" (Corporate Finance Institute, 2021: Online). Consequently, capital flight can refer to rapid withdrawals of assets and capital from certain regions of a country or cities and not necessarily the entire country (Corporate Finance Institute, 2021: Online).

Capital flight exists in two forms, legal and illegal capital flight, where legal capital flight represents the repatriation of invested capital by foreign investors (Corporate Finance Institute, 2021: Online). Legal repatriation of capital investments is characterised by the full disclosure and compliance with country specific laws and regulations (Corporate Finance Institute, 2021: Online). Conversely, illegal capital flight occurs in the form of illicit financial flows (Corporate Finance Institute, 2021: Online). Illicit financial flows represent the outflow of capital investments through the dissipation of capital funds offshore by way of illegal means with non-disclosure of the disposal event to the relevant revenue authority; illegal capital flight is a common phenomenon that is associated with countries that impose strict capital control regulations (Corporate Finance Institute, 2021: Online).

South Africa, having strict capital outflow controls, and is at the mercy of capital flight by way of cross-border cryptocurrency transfers (Ukwueze, 2021: 22). Despite the South African National Treasury being placed in charge of overseeing capital control regulations within the Republic of South Africa, leakages in tax revenue remains a major challenge faced by all revenue and customs authorities worldwide (SARB, 2014: Online). Capital flight with the use of cryptocurrencies as a medium to facilitate cross borders transactions is an ever-increasing challenge and dilemma that the South African Revenue Service is facing, especially with the unaddressed tax treatment surrounding the holding and trading of cryptocurrencies (South African Reserve Bank, 2021: Online). The dissipation of capital assets through the use of cryptocurrencies take on the forms described below, with increasingly new ways surfacing as the digital and cryptocurrencies markets evolve (Hu, Lee & Putnins, 2020: 4):

(a) mis-invoicing of imports and exports;

(b) incomplete foreign debt data; and

(c) mis-reported travel expenses.

Curson (2021: Online) concluded her report confirming the "inability of governments to stop capital flight and illicit outflows through the international trading system". Mis-invoicing remains a major challenge faced by revenue and customs authorities around the world with an estimated net global average loss in tax revenue of $1.4 trillion per annum (Curson, 2021: Online). With new developments in the financial sector and the introduction of cryptocurrencies making capital flight easier, governments are seeing increased spikes of mis-invoicing enabling illicit financial outflows aided by the decentralized and anonymous nature of cryptocurrencies (Hu *et al*, 2020: 5). The marginal gap of mis-invoicing in the South African context could soar to new heights from its 10-year average value gap of $20.435 million at the exchange rate of R15.88 to the dollar, amounting to R325 billion per annum, should the challenges of mis-invoicing not be addressed swiftly, coupled with other means in which cryptocurrencies may facilitate capital flight (Curson, 2021: Online).

South Africa is currently experiencing a new age of capital flight arising from political unrest coupled with the looming threats by the Commissioner for the South African Revenue Service, Edward Kieswetter, to impose tighter capital controls, accompanied with a "crack-down" on non-compliant taxpayers who do not declare their crypto asset trading income (Troost, 2021: 4). It is submitted that with the on-going political unrest and ever looming threats by Edward Kieswetter to impose more stringent capital controls, the government of the Republic of South

Africa will see the phenomenon of capital flight being an ever-increasing exercise undertaken by wealthy individuals (Troost, 2021: 4). This process is being facilitated by the use of cryptocurrencies, due to the ease of cross border fund transfers, and decentralized and anonymous nature (Plassaras, 2013: 385). The phenomenon surrounding capital flight and the dissipation of capital assets offshore is also prevalent in China (Hu *et al*, 2020: 3). This phenomenon is largely attributable to the large-scale circumventing of capital controls imposed by the Chinese government in its efforts to mitigate money laundering exercises (Hu *et al*, 2020: 5).

2.9 CONCLUSION

This chapter has described cryptocurrencies, outlining the technical concepts associated with cryptocurrencies. It has been shown that cryptocurrencies comprise of three generations, with continuous developments being implemented, making the cryptocurrency transactions more anonymous and complex with each generation. The chapter has also described the manner in which cryptocurrencies can be acquired – by means of purchase using fiat currency, as a consequence of the sale of goods or services in return for cryptocurrency in the normal course of trade, and by crypto mining.

Possible areas in which cryptocurrencies are subject to abuse by criminals, and where possible tax leakages may arise by way of tax evasion are identified. The cryptographic anonymity keys used by traders and investors are a key feature that aids criminal activities, such as money laundering, round-trip financing, funding illicit drug trades by drug cartels, and ultimately used for tax evasion and capital flight.

With rapid globalization of countries and their economies, a central unit of currency not tied to specific governments is perceived to be more appealing to individuals and companies, and therefore, perceived as a sound reason why cryptocurrencies have grown exponentially since the release of the eight-page *cypherpunk* mailing list on Bitcoin by Satoshi Nakamoto in 2008.

It is submitted that the tax compliance of taxpayers holding cryptocurrencies, together with the problem of identifying a taxing jurisdiction, and the problem of capital flight, has become a major problem for revenue authorities and has therefore become an important area of focus and consideration by countries and their revenue authorities in bringing taxpayers to account when transacting in cryptocurrencies.

In the following chapter, the application of the “gross income” definition in terms of section 1 of the Income Tax Act, to cryptocurrency transactions, together with other inclusions in income, is discussed.

CHAPTER 3: "INCOME" IN RELATION TO CRYPTOCURRENCIES

3.1 INTRODUCTION

Cryptocurrencies can be obtained from crypto exchanges in exchange for fiat currencies or from private individuals, from crypto mining, or even in payment for the provision of goods or services. The second sub-goal of the research is to discuss the practical application of provisions in the Income Tax Act in relation to mining, investing in or trading cryptocurrencies. In addressing the sub-goal, this chapter discusses the application of the provisions of "gross income", as defined in section 1 of the Income Tax Act, as well as the application of capital gains tax provisions in terms of the Eighth Schedule to the Income Tax Act, to the taxation of amounts received in respect of cryptocurrencies. The possible application of the section 10(1)(i) interest exemption is also briefly touched on in relation to "stakes" provided by crypto miners entitling them to mine, as well as section 22 in relation to trading stock in the hands of crypto speculators, and section 24H in relation to carrying on crypto mining in the form of a partnership.

Since the SARS media release on 6 April 2018, further guidance has been scarce regarding SARS's stance on the tax implications of holding and trading in cryptocurrencies (Troost, 2021: 4). In the media release it was stated that "SARS will apply 'normal income tax rules' to cryptocurrencies when assessing whether a gain is revenue or capital in nature, and cryptocurrencies are not seen as currency for income tax purposes but referred to as 'crypto assets'" (SARS, 2018: Online). Edward Kieswetter, Commissioner for SARS, as well as media outlets, have been quick to state in public media releases that SARS will "crack down" on all non-compliant taxpayers who do not willingly declare their cryptocurrency profits to the revenue authority (Troost, 2021: 4). Many taxpayers, however, are unaware of their non-compliance as minimal guidance has been issued by SARS to assist taxpayers in declaring their crypto asset profits. Apart from the SARS media release on 6 April 2018 and fifteen frequently asked questions on cryptocurrencies posted on the SARS website, no conclusive guidance has yet been issued for public consideration (Troost, 2021: 4). Anecdotal evidence suggests that SARS is still of the opinion that cryptocurrencies are highly speculative intangible assets (Troost, 2021: 4).

Substantial changes in the crypto arena have taken place since the SARS media release on 6 April 2018, and cryptocurrencies have provided investors and traders alike with various initiatives and business incentives shaping the new digitized financial systems with decentralized financing across borders (Troost, 2021: 4). These developments were referred to in chapter 2 of this thesis.

In the following section, the gross income definition in section 1 of the Income Tax Act is analysed in relation to cryptocurrencies, together with case law dealing with the undefined terminology forming part of the gross income definition.

3.2 A CRITICIAL ANALYSIS OF THE APPLICATION OF "GROSS INCOME" TO CRYPTOCURRENCIES

With the rapid evolution of cryptocurrencies and the lack of guidance on their tax treatment, it should not be left to taxpayers to decide on the tax treatment by applying the normal income tax rules, with the onus being place on the affected taxpayers to declare all cryptocurrency related taxable income (Troost, 2021: 5). Affected taxpayers holding taxable cryptocurrency profits are left with little to no guidance to follow when preparing their annual personal tax returns (ITR12), trust tax returns (ITR12T), or company tax returns (ITR14), and declaring their cryptocurrency profits. In relation to this requirement, the SARS media release (SARS, 2018: Online) states: "Taxpayers who are uncertain about specific transactions involving cryptocurrencies may seek guidance from SARS through channels such as Binding Private Rulings (depending on the nature of the transaction)", thus providing little assistance to taxpayers holding cryptocurrencies, and particularly individuals who have ventured into cryptocurrencies.

3.2.1 The Definition of "Gross Income"

The determination of taxable income and the normal tax liability due by registered taxpayers is calculated by deducting exemptions and allowable deductions from "gross income", and adding in certain specified amounts and taxable capital gains. "Gross income" is therefore the starting point in the calculation of the taxable income of a person. In terms of the definition of "gross income" in section 1 of the Income Tax Act, certain requirements must be met before an amount can be classified as gross income, with six criteria that need to be met as part of the definition to qualify as gross income:

> "gross income" in relation to any year or period of assessment, means -
>
> (iii) in the case of any resident, the total amount, in cash or otherwise, received by or accrued to or in favour of such resident; or

(iv) in the case of any person other than a resident, the total amount, in cash or otherwise, received by or accrued to or in favour of such person from a source within the Republic,

during such year or period of assessment, excluding receipts or accruals of a capital nature, but including, without in any way limiting the scope of this definition, such amounts (whether of a capital nature or not) so received or accrued.

The six criteria of the gross income definition are as follows:

- total amount;
- in cash or otherwise;
- received by or accrued to;
- during the year of assessment;
- not of a capital nature; and
- the definition of a "resident".

As this thesis only deals with South African residents, the question of when a person is "resident" does not form part of the discussion. A critical analysis of the remaining five criteria forming part of the gross income definition is conducted below and applied to cryptocurrencies.

3.2.2 The Year of Assessment

Only amounts that are received or accrue in the year of assessment are considered for inclusion in gross income. The year of assessment of natural persons and trusts ends on the last day of February, and for companies on the last day of their financial year. This thesis deals only with taxpayers who are natural persons.

3.2.3 The Total Amount

The "total amount" criterion in the gross income definition is an important component of the definition and its application in determining the taxpayer's taxable income, and thereafter the ultimate tax liability. *Commissioner for Inland Revenue v Butcher Brothers (Pty) Ltd*, 1945 AD 301, 13 SATC 21, and *WH Lategan v Commissioner for Inland Revenue*, 1926 CPD 203, 2 SATC 16, are two key cases to consider.

In the *Butcher Bros* case, it was held that the onus is placed on the Commissioner for Inland Revenue (now the Commissioner for SARS), in the first instance, to establish that an amount exists and to value the amount. It is only after an amount has been established that the onus reverts to the taxpayer to prove, in terms of section 102 of the Tax Administration Act, 28 of 2011, as amended (the "Tax Administration Act"), that the amount under consideration exists, and its value. It was held in *Lategan v CIR* that the word "amount" should be given the widest possible meaning for the purpose of the definition of gross income. The judgment confirmed that the word amount should not be limited to monetary terms but should include the value of every form of property, whether corporeal or incorporeal, with a monetary value.

Commissioner for the South African Revenue Service v Brummeria Renaissance (Pty) Ltd, 2007 SCA 99, 69 SATC 205, is the most recent Supreme Court of Appeal case providing guidance on the phrase "in cash or otherwise". The case dealt with interest-free loans and established that the benefit of the "notional" interest had an ascertainable monetary value for the recipient of the interest-free loan, and this value was to be based on commercial interest rates. The judge further held (at 205) in handing down the judgment that "the fact that the benefit cannot be turned into money is only one of the ways to determine its value". It was held (at 207) "that rights of a non-capital nature and which are capable of being valued in money are included under gross income". The decision in this case therefore established that an objective valuation must be attributed to amounts in a form other than cash.

Cryptocurrencies, defined as crypto assets in the definition of "financial instruments" in section 1 of the Income Tax Act, are no different from any assets received in a form other than in cash. They are also considered to be "assets" as defined in paragraph 1 of the Eighth Schedule to the Income Tax Act. The initial onus of valuation therefore rests with the Commissioner to determine that an amount in the form of cryptocurrency exists, and the appropriate means of valuation. Cryptocurrencies can have monetary values attached to them, denominated in normal fiat currency in all globally recognized currencies around the world, like the American Dollar, British Pound, South African Rand, etc. (Ashford & Schmidt, 2021: Online). In South Africa, the value of any cryptocurrency held at the stated point in time will have to be converted to its Rand value. Thus, for example, on 2 January 2022 at 16:12 GMT, one Bitcoin had the equivalent monetary valuation in fiat currency of R752 440.86 (CoinDesk, 2022b: Online). The fact that the value was quoted at a particular hour and minute on a certain date attests to the volatility of cryptocurrencies and the problems associated with their conversion to Rand value.

In instances where cryptocurrencies are exchanged for other items of property, the relevant market value of an asset received in exchange for the cryptocurrency (thus a barter transaction) establishes the value to be included as part of gross income.

3.2.4 Cryptocurrency-Rand conversion

The value attributed to cryptocurrencies is usually denominated in a foreign currency, more frequently using the American Dollar ("USD"). This value could therefore be used and converted to Rand, in terms of section 25D of the Income Tax Act. Alternatively, the cryptocurrency amount could be converted directly to its Rand value. As indicated above, prices of cryptocurrency can vary from hour to hour. To counter the problems associated with the volatility of the value of cryptocurrencies, however, it was suggested by the South African Institute of Tax (SAIT) (SAIT, 2021a: 6) that the provisions of section 25D of the Income Tax Act may provide the solution to the conversion of cryptocurrencies to Rand. Section 25D of the Income Tax Act governs the translation of amounts denominated in a foreign currency to the currency of the Republic. In the case of an individual, the section provides the option to apply either the spot rate or an average exchange rate for the year of assessment. This would require an amendment to section 25D, as cryptocurrencies are not regarded as currency, which may involve the introduction of a section 25D(8) to govern the translation of cryptocurrency gains (and losses). A similar amendment could be made to paragraph 43 of the Eighth Schedule to the Income Tax Act to provide for the conversion of capital gains and losses (SAIT, 2021a: 6).

3.2.5 In Cash or Otherwise

The second criterion of gross income requires the amount to be "in cash or otherwise". The phrase in "cash or otherwise" is not defined in the Income Tax Act, therefore guidance is sought from case law. In *Commissioner for Inland Revenue v Delfos*, 1933 AD 243, 6 SATC 92, it was confirmed that the phrase "in cash or otherwise" meant that not only receipts or accruals of money will be included in gross income but amounts that have a monetary value, or which can be converted into monies worth, are also to be included in gross income. Cryptocurrencies clearly have a monetary value and can be converted to monies worth.

3.2.6 "Received By or Accrued To"

The phrase, "received by or accrued to" requires a two-pronged process due to the insertion of the word "or". The relevant phrase implies that taxpayers should not only include income that has been received in gross income, but also amounts that have accrued to them during the relevant year of assessment. The objective of the inclusion of amounts that accrue to a taxpayer in the gross income definition is mainly aimed at addressing timing issues, with the primary focus being placed on the determination of the relevant year of assessment in which the gross income arises.

"Received by"

In *Geldenhuys v Commissioner for Inland Revenue*, 1947 SA 256, 14 SATC 419, it was held that "received by" meant amounts that have been received by taxpayers for their own benefit and on their own behalf. The facts of the case pertained to the sale of livestock by the widow of a farmer upon the death of her spouse. The court ruled that the sales proceeds did not accrue to her in her personal capacity, as the income derived belonged to the heirs of the estate. The fact that the widow farmer received the relevant proceeds from the sale of livestock was irrelevant, as the proceeds received were not received for her own benefit and on her own behalf but for the benefit of the heirs of the estate on their behalf.

It is submitted that, as confirmed in a SARS media release (SARS, 2018: Online), normal income tax provisions will apply to cryptocurrencies. In event that cryptocurrencies are acquired in exchange for fiat currency, or received for the supply of goods or services, the amount of the cryptocurrency actually received will form part of gross income, if received for the recipient's own benefit and on their own behalf, in accordance with the *Geldenhuys* decision.

If the cryptocurrency is received as an agent on behalf of another person, it will not be included in the agent's income (*Income Tax Case 1792*, 2005 SA 75, 67 SATC 236*)*. Malan J concluded in *ITC 1792* by stating (at 538): "The amounts had not been 'received' within the meaning of the definition of gross income for the personal benefit and advantage of the taxpayer in his own right but had accrued to the principal on whose behalf the agent was acting." It is submitted that the principle established in *ITC 1792* will apply to cryptocurrencies, where the proceeds from the disposal of cryptocurrency received by a cryptocurrency exchange (or any other agent), will be received on behalf of its client.

Commissioner for Inland Revenue v Delagoa Bay Cigarette Co Limited, 1918 TPD 391, 32 SATC 47, established the principle that, in determining whether an amount is "income" or not, no account must be taken of the fact that the activity involved was illegal, immoral, or *ultra vires*. It was held that the legality or otherwise of the business was irrelevant. Therefore, if cryptocurrencies have been the medium of exchange used to facilitate illicit trades, all income derived in the form of a cryptocurrency will be included in gross income. A prime example of the utilisation of cryptocurrencies (which has since been shut down by civil authorities) was

The Silk Road founded by Ross Ulbrich in February 2011, using Bitcoin as the functional currency of trade, due to its characteristic anonymous traits (Cristin, 2012: 3).

"Accrued to"

In *Secretary for Inland Revenue v Silverglen Investments (Pty) Ltd*, 1969 SA 365, 30 SATC 199, Steyn CJ stated the following (at 208):

> The requirement that receipts as well as accruals must be disclosed, with the provision for penalty and additional taxation, and the levy of the tax on both receipts and accruals, clearly indicate that Parliament contemplated an assessment of the tax in every year also on accruals during that year; and if that is what Parliament contemplated, I know of no ground on which the Secretary could as of general right postpone the assessment of disclosed accruals to a subsequent tax year when it may be more advantageous to the Treasury to tax them as receipts in respect of that year.

Amounts that have accrued must therefore be included in gross income in the year of assessment in which the accrual takes place, and not a later year of assessment. The meaning of the "accrued to" criterion of the gross income definition has created problems since the enactment the definition of gross income. "Accrued to" can be interpreted as meaning to "become entitled to" an amount not yet received. In *Lategan v CIR*, the meaning to be ascribed to the terms "accrued to" was considered. Watermeyer J (at 20) stated: "… the words 'has accrued to or in favour of any person' merely meant 'to which he has become entitled'. So far as a debt was concerned which was payable in the future and not in the year of assessment, it might be difficult to hold that the *cash amount* of the debt had accrued to the taxpayer in the year of assessment" (emphasis in the original). The *present value* of the outstanding amount, and not the cash value, was therefore to be included in gross income.

Commissioner for Inland Revenue v People's Stores (Walvis Bay) (Pty) Ltd, 1990 SA 353, 52 SATC 9, in addition to confirming the *Lategan* decision that the phrase "accrued to" meant that to which the recipient taxpayer has become entitled, also confirmed that the present value, and not the cash amount was to be included in gross income. The definition of gross income was subsequently amended by adding a proviso stating that "where during any year of assessment a person has become entitled to any amount which is payable on a date or dates falling after the last day of such year, *that amount* shall be deemed to have accrued to the person during such year" (own emphasis), thus the cash amount.

Mooi v Secretary for Inland Revenue, 1972 SA 674, 34 SATC 1, amplified the meaning ascribed to "accrued to" in the *Lategan* decision. It was held (at 6) that for an amount to accrue, a person must be unconditionally entitled to the amount. Therefore, the undefined terminology of "accrued to" should be interpreted to mean that the taxpayer must "become unconditionally entitled to" an amount before the amount has accrued and will be included in gross income.

The use of cryptocurrencies as a medium of exchange may not yet have reached credit status, as very few large corporations are accepting cryptocurrencies as a form of payment (Lee, 2021: Online). Nevertheless, the principles applying to the "accrual" of the amount will apply, should debts arise in the form of cryptocurrencies, and the amount is included in gross income when the recipient party becomes "unconditionally entitled to" the amount.

In chapter 4 reference is made to a statement that "unlike shares, the purchase price of the cryptocurrency is determined on the date [it is] received" (SAIT, 2021c: 5). This relates to the incurral principle in section 11(a) of the Income Tax Act, but could apply equally to the timing of the receipt. Thus, in the case of cryptocurrencies, the normal principle of accrual that the date of the transaction establishes the date of accrual, may not apply.

As noted, the "accrual" principle is related to the timing of a receipt. Where a cryptocurrency amount is awarded to a crypto miner or obtained by means of an online ("peer-to-peer") purchase using another cryptocurrency, there is no way that the actual date of receipt or accrual can be established by the authorities. The recipient of the cryptocurrency could therefore only declare the receipt or accrual when the value of the cryptocurrency decreases (or not at all!).

3.2.7 Exclusion of "Receipts or Accruals of a Capital Nature"

The final criterion of the gross income definition excludes from gross income "receipts or accruals of a capital nature". The meaning to be ascribed to the phrase "capital nature" is not defined in the Income Tax Act and guidance is again sought from case law.

Distinction between capital and revenue

Whether amounts are to be characterized as either capital or revenue in nature is a question of law decided upon consideration of the facts of each individual case. Meyerowitz (2006: 8) interprets capital and revenue transactions as follows:

> In the normal course there is no difficulty in determining whether a receipt or accrual is income or is of a capital nature. A phrase frequently used to illustrate the distinction is that

> capital is the income–producing machine, the product of which is income. A metaphor that may be resorted to is to liken capital to a tree and income to its fruits.

Amounts must either fall within capital or revenue. Davis AJ held (at 53) in *Pyott Limited v Commissioner for Inland Revenue*, 1945 AD 128, 13 SATC 121, that the concept of amounts being both "non-capital" and "non-income" in nature was impossible, and he went on to conclude that the concept of a "half-way house" was not known to him.

Maritz J made the following statement (at 276) in *Commissioner for Inland Revenue v Visser*, 1937 TPD 77, 8 SATC 271, regarding the use of the metaphor of the tree or the fruit in distinguishing capital from revenue:

> This economic distinction is a useful guide in matters of income tax, but its application is very often a matter of great difficulty, for what is principal or tree in the hands of one man may be interest or fruit in the hands of another. Law books in the hands of a lawyer are a capital asset; in the hands of a bookseller, they are a trade asset. A farm owned by a farmer is a capital asset; in the hands of a jobber, it becomes stock-in-trade.

The manner in which cryptocurrencies are acquired, held, and traded contributes to the final tax treatment regarding the classification as either capital or revenue in nature. In *Commissioner for Inland Revenue v George Forest Timber Co Ltd*, 1924 AD 516, 1 SATC 20, the principle was established that the nature of the asset determines whether the amount received or accrued is capital or revenue in nature. Cryptocurrencies can be held on capital account as a store of wealth or a hedge against inflation. Gains or losses on the disposal of these cryptocurrency assets are of a capital nature and subject to the provisions of the Eighth Schedule to the Income Tax Act. Cryptocurrencies held on speculative account are revenue in nature, as a sale of floating capital in an operation of business in a scheme of profit-making (*Commissioner for Inland Revenue v Pick 'n Pay Employee Share Purchase Trust*, 1992 SA 39, 54 SATC 271). The manner in which cryptocurrencies are held therefore contributes significantly to the tax treatment, either at the normal tax rate in terms of the tax tables or at a largely reduced effective rate of capital gains tax (Kruger *et al*, 2012: 28).

Intention-driven classification of amounts as either capital or revenue in nature

The most important aspect to consider when determining whether an amount received by a taxpayer is of a capital or revenue nature is the taxpayer's stated intention (Beck, 2008: 51). In *Malan v Kommissaris van Binnelandse Inkomste*, 1981 SA 92, 43 SATC 1, it was held (at 76-77) that the taxpayer's liability to tax or his entitlement to a deduction will often turn on his intention at a particular time; the taxpayer's *ipse dixit* as to his intention is an important evidentiary factor, to be considered along with all the other evidence in the case, and a finding by the court on the taxpayer's credibility may be of decisive importance. The intention of the taxpayer on its own does not, therefore, conclusively determine whether the proceeds on disposal are capital or revenue in nature. Principal factors should be considered on a case-to-case basis, together with the taxpayer's *ipse dixit* (*Malan v KBI*).

A taxpayer's stated intentions may change and with a change in intention, the nature of the asset may change accordingly. Wessel JA stated the following (at 261-262) in *Commissioner for Inland Revenue v Stott*, 1928 AD 252, 3 SATC 261:

> It was unnecessary to go as far as to say that the intention with which an article or land was bought was conclusive as to whether the proceeds derived from a sale were taxable or not. It was sufficient to say that the intention was an important factor and unless some other factor intervened to show that when an article was sold it was sold in pursuance of a scheme of profit-making, it was conclusive in determining whether it was capital or gross income.

As the intention of taxpayers may change over time, taxpayers' intentions upon initial acquisition, during the period of holding the asset and upon disposal should be considered.

Natal Estates Ltd v Secretary for Inland Revenue, 1975 SA 177, 37 SATC 193, is a leading case providing guidance on changes in a taxpayer's intention. Holmes JA stated (at 220), in the concluding remarks, that:

> In deciding whether a case is one of realizing a capital asset or of carrying on a business or embarking upon a scheme of selling land, for each case important considerations include, *inter alia*, the intention of the owner, both at the time of buying the land and when selling it (for his intention may have changed in the interim) …

Proceeds on the disposal of cryptocurrencies could be classified as either capital or revenue, based on the taxpayer's stated intention and the facts of the case. The classification of cryptocurrencies as being either capital or revenue in nature has, however, remained unaddressed with little to no guidance on its classification having been issued by SARS (Wicht, 2014: 10).

Cryptocurrency miners or traders may pursue the mining or trading of cryptocurrencies as a speculative venture to dispose of them in exchange for a fiat currency by entering into a scheme of profit-making (*Pick 'n Pay Employee Share Purchase Trust*), and at a later stage change their intention to the holding of cryptocurrencies as a store of wealth (or *vice versa*).

Objective factors influencing the nature of the proceeds

A taxpayer's intention is not decisive when determining the capital or revenue nature of receipts or accruals (Beck, 2008: 60). Therefore, while the intention of the taxpayer is an important factor in the classification of the receipt or accrual of an amount as either capital or revenue in nature, certain objective factors may serve to substantiate the taxpayer's stated intention.

For example, the period for which an asset is held may be an indicator of the taxpayer's intention (Goldswain & Stack, 2022: 16); holding and asset for a long period may indicate a capital intention. In *John Bell & Co (Pty) Ltd v Secretary for Inland Revenue*, 1976 SA 415, 38 SATC 87, Wessels JA stated (at 156) that once a decision is taken to sell a capital asset, it does not matter that the taxpayer waits for a period of time to pass until the value of the asset rises before, he sells it. In terms of this decision, taxpayers are entitled to hold and sell cryptocurrencies on capital account without rendering the proceeds revenue in nature should their stated intentions at acquisition be to hold the asset "for keeps", and the mere decision to sell the asset was to realize the asset to the best advantage.

The reason why the asset was disposed of may also be an indicator of the nature of the receipt – refer to the discussion of the "Kruger Rand" cases below. Where the asset is disposed of in the ordinary course of business (*Pick 'n Pay Employee Share Purchase Trust*) the proceeds would automatically be regarded as revenue in nature. The mode of acquisition is also an important aspect to consider in determining whether proceeds are capital or revenue in nature; however, this test is not decisive, and other aspects of the case should also be considered in this regard (Beck, 2008: 61). Goldswain and Stack (2022: 16) referred to the consideration of how the acquisition was financed; if the acquisition is financed out of borrowed funds rather than own funds, the proceeds on disposal are more likely to be of a revenue nature.

The intention of the taxpayer could also be influenced by the state of the market in which items of property and financial instruments are acquired or disposed of, including cryptocurrencies (Beck, 2008: 60). Where taxpayers purchase and sell during "boom" periods this may be indicative of the income nature of the proceeds (*Secretary for Inland Revenue v The Trust Bank of Africa Ltd*, 1975 SA 652, 37 SATC 87). During depressed periods, commonly known as a "crash" in the market, trades during such periods are usually indicative of a capital intention

(Beck: 2008: 61). This distinction is apt in view of the volatile nature of the value of cryptocurrencies.

These objective tests could also be applied with regard to the capital or revenue nature of disposals of cryptocurrencies. The importance of objective factors was emphasised in *Natal Estates Ltd v the Secretary of Inland Revenue*, where Holmes JA referred to the objective facts to be considered with regard to the sale of land (at 220) as follows:

> … the objects of the owner, if a company; the owner in relation to his land up to the time of deciding to sell it in whole or in part; the light which such activities throw on the owner's *ipse dixit* as to intention; where the owner subdivides the land, the planning, extent, duration, nature, degree, organization and marketing operations of the enterprise; and the relationship of all this to the ordinary commercial concept of carrying on a business or embarking on a scheme for profit. Those considerations are not individually decisive, and the list is not exhaustive. From the totality of the facts, one enquires whether it can be said that the owner had crossed the Rubicon and gone over to the business, or embarked upon a scheme, of selling such land for profit, *using the land as his stock-in-trade* (emphasis in the original).

These objective factors would carry weight in the classification of the proceeds of the disposal of cryptocurrencies. Furthermore, should cryptocurrencies initially be held on capital account and then active steps are taken by the holder of the cryptocurrencies to dispose of them by entering a scheme of profit-making, the holder will have "crossed the Rubicon".

"Kruger Rand" cases

While the principles discussed above may be helpful, they may not necessarily apply to cryptocurrencies. There are, to date, no tax cases dealing with cryptocurrencies, but earlier "Kruger Rand" cases may provide some guidance on the classification as capital or revenue of disposals of cryptocurrencies (SAIT, 2021a: 6). This is because of similar functions of the two types of assets – to hold as a store of value or a hedge against inflation, or to speculate by buying and selling.

Commissioner for Inland Revenue v Nel, 1997 SA 310, 59 SATC 349, provided guidance regarding the disposal of gold coins not for profit, but merely to acquire another capital asset. The taxpayer acquired 250 Krugerrands over a period of three years from surplus cash that was available from time to time. The taxpayer's stated intention was to hold his investments as a store of wealth with a finite aim to serve as a hedge against inflation. The Krugerrands steadily appreciated over the period of holding with many opportunities to sell. Despite the many opportunities to sell, the taxpayer never considered doing so, nor did it ever cross his mind. Eleven years later, the taxpayer urgently required cash to purchase a motor vehicle for his spouse and was advised to dispose of eighty Krugerrands to fulfil this need.

The Commissioner, when assessing the profit on the sale to tax, contended that the unique nature of the Krugerrands in the sense that they were not income producing assets other than the fact that they could be worked into jewellery, meant that they had no economic utility other than being sold for fiat currency, and were therefore revenue in nature. Krugerrands do not provide a return on the investment unless a favourable increase in gold prices occurs and the coins are disposed of.

It held that the evidence clearly indicated that the taxpayer's sole reason for selling his Krugerrands was not to realise a profit, but merely to realise a capital asset to acquire another one. The Special Court had rightfully concluded that the Krugerrands were purchased initially with the intention to hold "for keeps", and the disposal was due to "some unusual, unexpected, or special circumstances".

Income Tax Case 1355, 1981 44 SATC 132, and *Income Tax Case 1379*, 1983 SA 237, 45 SATC 263, involved families who fled Eastern Europe during the Second World War. Upon fleeing, the taxpayers purchased mobile assets to retain their wealth on arrival in South Africa. In both cases, disposal of the purchased Krugerrands was undertaken, with the first taxpayer disposing of the assets to assist family members left behind the Iron Curtain. The second taxpayer disposed of the holdings in Krugerrands as he believed that the price of gold was too high. In both cases it was concluded that their actions supported their evidence, and the sale of their Krugerrand holdings did not indicate a change of intention but merely arose from "some unusual, unexpected, or special circumstances".

In contrast to *CIR v Nel*, *ITC 1355*, and *ITC 1379*, the taxpayer in *Income Tax Case 1525*, 54 SATC 209, was not as fortunate in his dealings. The taxpayer was an alcoholic who was in the process of restoring his wealth and finances and was advised by his auditors to invest in Krugerrands, firstly to build up capital for his old age and secondly to avoid the temptation of having excess spare cash on hand. Many years had since passed when the taxpayer required funds to start his own business and he sought to sell a portion of his Krugerrand holdings to acquire the necessary capital to start his new business venture. However, in the absence of relevant supporting evidence to support his intention to hold for "keeps" on permanent account, he was taxed on the full proceeds derived through sale.

As *CIR v Nel* was a Supreme Court of Appeal decision and was heard after these Income Tax Court cases, it has established precedent that the sale of Krugerrand holdings that arose from "some unusual, unexpected, or special circumstances", did not indicate a change of intention from holding the Kruger Rands on capital account.

Should taxpayers intend to hold investment assets such as diamonds, precious metals, Krugerrands, and all assets that do not produce income, they must make their stated intentions and for purchase on investment account clear (Reitz, 1999: Online). *ITC 1525* was a prime example of an instance where the taxpayer was unable to discharge this onus placed on him under the old section 82 of the Income Tax Act (now section 102 of the Tax Administration Act) with result that all profits derived on the sale were subject to the normal income tax consequences.

No further guidance has been issued by Edward Kieswetter, and the revenue authority itself as to the exact tax treatment of cryptocurrencies (Troost, 2021: 3) Taxpayers are left to their own devices when determining the nature of their cryptocurrency proceeds in conjunction with the application of normal income tax rules (Troost, 2021: 3). Troost proposed that "[a]t a minimum it is suggested that SARS, together with National Treasury, should state that gains (and losses) on crypto assets are deemed to be capital in nature if held for a period of, say, more than one year" (Troost, 2021: 4). The proposal refers to section 9C of the Income Tax Act, which provides that equity shares held for three years or more, are deemed to be capital in nature (Troost, 2021: 4). Troost (2021: 4) suggested that "SARS can at least assist taxpayers in having more certainty in their disclosures".

Section 102 of the Tax Administration Act – Burden of Proof

The burden of proof in section 102(1) of the Tax Administration Act is as follows:

> A taxpayer bears the burden of proving-
>
> (a) that an amount, transaction, event, or item is exempt or otherwise not taxable;
> (b) that an amount or item is deductible or may be set off;
> (c) the rate of tax applicable to a transaction, event, item, or class of taxpayer;
> (d) that a valuation is correct; or

(e) whether a 'decision' that is subject to objection and appeal under a tax Act, is correct.

The onus of proof regarding the valuation of the amount realised on the disposal of cryptocurrency, whether an amount has been received or has accrued, or the capital or revenue nature of the amount, rests with the taxpayer.

3.3 CAPITAL GAINS TAX

As crypto assets (including cryptocurrencies) are defined as "financial instruments" in section 1 of the Income Tax Act, they constitute "assets" as defined in paragraph 1 of the Eighth Schedule to the Income Tax Act (the Eighth Schedule), as "property of whatever nature". Where cryptocurrencies held as investments are disposed of by "sale, donation, … conversion, grant, cession, exchange or any other alienation or transfer of ownership" (paragraph 11(1)(a) of the Eighth Schedule), the proceeds, less the base cost, being "the expenditure actually incurred in respect of the cost of acquisition or creation" of the cryptocurrency (paragraph 20(1)(a) of the Eighth Schedule), will give rise to a capital gain. After a deduction of the annual exclusion of R40 000 (paragraph 5 of the Eighth Schedule), the taxable capital gain is calculated at 40% of the capital gain and included in taxable income in terms of section 26A of the Income Tax Act. Capital losses will be dealt with in the same way – capital loss, less R40 000 – and carried forward to the following year of assessment.

Assuming that the taxpayer disposing of cryptocurrencies held as investments is already subject to the maximum marginal tax rate of 45%, that rate of tax applying to a taxable capital gain is 18%, with the added advantage of the R40 000 annual exclusion.

3.4 OTHER TAX CONSEQUENCES

In addition, four further matters are discussed, that have tax consequences.

"Proof-of-Stake" Miners

Crypto mining can take place in terms of a system of "proof-of-work", where multiple miners compete to solve the cryptographic hash puzzles, or "proof-of-stake", where miners provide a "stake" for the privilege of mining. If the miner is successful and is awarded cryptocurrencies, would this constitute "gross income" from an "operation of business", or, as suggested by SAIT (2021b: 4), interest on the capital invested, in which case would the interest exemption of R23 800 (or R34 500 in the case of taxpayers who are 65 years and older) in terms of section 10(1)(i) of the Income Tax Act apply?

Crypto "Farming"

To save on the substantial cost of crypto mining, miners sometimes work as a group, usually in a warehouse or similar premises, sharing the cost and the cryptocurrency awards. Section 24H of the Income Tax Act deals with partnerships and, in terms of section 24H(5)(a), deems the partnership income to be received by or accrue to individual members of the partnership in accordance with the profit-sharing ratio in terms of the partnership agreement. This share of the income is included in the "gross income" of each miner.

Trading Stock

Crypto traders will have to account for their stock on hand of cryptocurrencies in terms of section 22 of the Income Tax Act. The value of cryptocurrency stock on hand at the end of the year of assessment is included in income at the original cost and deducted from income at the start of the following year of assessment. A more detailed discussion is included in chapter 4.

"Air Drops" of Cryptocurrencies

Blockchain developers and projects send tokens to hundreds of wallet addresses as marketing initiatives (Coindesk, 2022a). Air drops received are akin to gifts of a capital nature, and excluded from gross income due to its fortuitous nature *Morrison v Commissioner for Inland Revenue*, 1950 SA 449, 16 SATC 377.

3.5 CONCLUSION

This chapter has discussed "gross income" as defined in section 1 of the Income Tax Act and has applied the criteria of the gross income definition to cryptocurrencies, outlining the general requirements that need to be considered by both taxpayers and SARS when deciding whether the proceeds on acquisition or on disposal of cryptocurrencies are to be included in gross income. This chapter focused on the South African case law to determine the meaning and applicability of terms that are not defined in the Income Tax Act.

It was established that amounts in the form of cryptocurrencies satisfy the requirement of "total amount", with the initial onus being placed on the Commissioner to establish that an amount exists, and to establish the value of the amount (*CIR v Butcher Bros*). *Lategan v CIR* and *CIR v Peoples Stores* confirmed that the present value of amounts that accrued to a given taxpayer would be included in gross income, but an amendment to the definition of "gross income" provides that the cash amount must be included in gross income. It was concluded that once an amount has been established, the valuation of cryptocurrencies can be denominated in normal fiat currency thus meeting the requirement, “in cash or otherwise”. It was suggested that the valuation problem arising from the volatility of cryptocurrencies could be solved by treating them as fiat currency and amending section 25D and paragraph 43 of the Eighth Schedule to provide for their conversion at the average Rand value for the year of assessment.

CIR v Geldenhuys dealt with the “received by” requirement of the gross income definition, establishing that an amount must be received by taxpayers on their own behalf for their own benefit are included in gross income, provided all the relevant criteria are satisfied. This would include cryptocurrencies.

With regard to the requirement that amounts that accrue to a person at the end of the year of assessment must be included in the person’s gross income, *Mooi v SIR* amplified the meaning ascribed to “accrued to” in the *Lategan* decision. It was held that for an amount to accrue, a person must be unconditionally entitled to the amount. The use of cryptocurrencies in normal trading activities has not yet reached the level that transactions would routinely be concluded on credit terms, but should an amount accrue in respect of the disposal of cryptocurrencies, the amount will be valued at “face” value in terms of the proviso to the definition of gross income.

Regarding the capital versus revenue distinction, it was concluded that the taxpayer’s stated intention, or change in intention, during the period of holding an asset, including cryptocurrencies, is important when determining whether an amount was received on capital or revenue account, but that objective factors will be required to substantiate the taxpayer’s *ipse dixit* as to his intention. The onus of the taxpayer in terms of section 102 of the Tax Administration Act is to establish the capital nature of the disposal of cryptocurrencies which was discussed.

As to date there has been no case law dealing with the capital or revenue nature of the disposal of cryptocurrencies, the “Kruger Rand” cases were discussed that may involve similar principles, as the reasons for the acquisition and holding of these assets may be similar – to hold as a store of value or a hedge against inflation. The decisions in the “Kruger Rand” cases were contradictory, but the Supreme Court of Appeal decision in *CIR v Nel* established the precedent that where Kruger Rands are only disposed of due to “some unusual, unexpected, or special circumstances”, this did not indicate a change of intention from holding the Kruger Rands on capital account. The same considerations may apply to cryptocurrencies.

Where cryptocurrencies are disposed of and the amounts are of a capital nature and therefore excluded from "gross income", they are subject to the provisions of the Eighth Schedule to the Income Tax Act. The proceeds on disposal, less the base cost, establishes the capital gain (or loss). The annual exclusion of R40 000 is deducted from the gain or loss. Where this results in a taxable capital gain, it is included in taxable income in terms of section 26A of the Income Tax Act. Where it results in a capital loss, this is carried forward to the following year of assessment.

Finally, four further matters were raised – "proof-of-stake" awards, that may constitute interest on the "stake" provided by the miner for the right to mine, and subject to the section 10(1)(i) interest exemption, crypto "farming", which is treated as a partnership, with crypto awards shared in terms of the partnership profit-sharing agreement, accounting for trading stock of cryptocurrencies, and "air drops" of cryptocurrency tokens as gifts.

In the following chapter, the application of the general deduction formula in terms of the preamble to section 11, section 11(a), and section 23(g) of the Income Tax Act in relation to cryptocurrencies will be analysed. Losses suffered by cryptocurrency holders or miners in terms of section 20 and 20A of the Income Tax while carrying on a trade as defined, will also be discussed, together with other issues relating to cryptocurrencies.

CHAPTER 4: DEDUCTIONS IN RELATION TO CRYPTOCURRENCIES

4.1 INTRODUCTION

The second sub-goal of this research is to discuss the practical application of provisions in the Income Tax Act in relation to mining, investing in, or trading cryptocurrencies. In addressing the sub-goal, this chapter discusses the application of the definition of "trade" in section 1 of the Income Tax Act, together with the "general deduction formula", as set out in the preamble to section 11, section 11(a) and section 23(g) of the Income Tax Act, to the deductibility of expenditure incurred in respect of cryptocurrencies. Where expenditure is of a capital nature, the capital gains tax provisions of the Eighth Schedule to the Income Tax Act are briefly referred to. The application of sections 20 and 20A(2)(b)(ix) of the Income Tax Act are also discussed, in relation to losses suffered by cryptocurrency traders whilst carrying on their trade as either a crypto-miner or a crypto-trader.

Wear-and-tear allowances in respect of assets used in the process of cryptocurrency mining are briefly referred to, together with the potential deduction by crypto miners of "home office" expenses. The tax deduction of pre-trade expenditure is also dealt with. The expenditure relating to two further issues – cryptocurrencies held as trading stock, and crypto "farming" – is explained. In addition, an analysis of South African case law will be presented when discussing terminology that is not defined in the Income Tax Act.

In the course of the discussion, examples will be cited of the types of expenditure incurred by cryptocurrency miners, investors and traders.

4.2 THE STANCE OF THE OECD ON THE DEDUCTIBILITY OF EXPENSES

In a report published by the OECD in 2003, it maintained its stance that taxes would apply to e-commerce with the aim of neutralizing and bridging the gaps arising from tax implications between virtual and conventional transactions, allowing for consistency in the tax treatment of all tax types across the board between e-commerce and conventional business transactions (OECD, 2003: 33). It was therefore submitted that the principles derived for normal tax implications would apply to e-commerce transactions in the same manner as they would to conventional business transactions (OECD, 2003: 33). This statement is repeated in the SARS media release on 6 April 2018 where it was stated that "normal income tax rules apply to cryptocurrencies" (SARS, 2018: Online).

The research findings and reports included in the OECD report on *The Implementation of the Ottawa Taxation Framework Conditions*, have suggested that all forms of income, whether derived through e-commerce or through the use of conventional business transactional protocols are taxable, with the strong expectation being created for the deductibility of expenditure or losses incurred in producing such income streams (Moodley, 2011: 29).

Despite the limited research performed on the deductibility of expenditure incurred on cryptocurrency mining and trading in cryptocurrency, the basic principles derived from the Income Tax Act and case law are still relevant and are applied in this study.

4.3 THE GENERAL DEDUCTION FORMULA

Deductions of expenditure are granted primarily through the application of the general deduction formula in terms of the preamble to section 11, section 11(a) and section 23(g) of the Income Tax Act. The preamble to section 11 and section 11(a) provide that:

> For the purpose of determining the taxable income derived by any person from carrying on any trade, there shall be allowed as deductions from the income of such person so derived –
>
> (a) expenditure and losses actually incurred in the production of the income, provided such expenditure and losses are not of a capital nature;

Section 23(g) of the Income Tax provides:

> No amount shall in any case be made in respect of the following matters, namely –
>
> any moneys, claimed as a deduction from income derived from trade, to the extent to which such moneys were not laid out or expended for the purposes of trade.

Port Elizabeth Electric Tramway Co Ltd v Commissioner for Inland Revenue, 1936 CPD 241, 8 SATC 13, established that the provisions of section 11(a) must be read together with section 23(g) of the Income Tax Act when determining whether amounts of expenditure or losses incurred are deductible from income derived by way of carrying on a trade. Two tests should be applied when determining whether expenditure or losses incurred may be deducted from the taxpayer's income, section 11(a) provides for the "positive" test for the deductibility of expenditure incurred and section 23(g) the "negative" test (Koekemoer *et al*, 2020: 116). The "positive" and "negative" tests referred to by Koekemoer *et al* (2020: 116) are discussed below in considering the deductibility of expenditure or losses incurred in trading in or mining of cryptocurrencies.

The "general deduction formula" therefore consists of the following elements:

- carrying on a trade;
- expenditure and losses;
- actually incurred [during the year of assessment];
- in the production of income;
- not of a capital nature; and
- a deduction prohibited to the extent to which moneys were not laid out or expended for the purposes of trade.

4.4 THE DEFINITION OF "TRADE"

Trading activities are clearly differentiated from non-trade activities for the purposes of qualifying for the section 11(a) deductions (Moodley, 2011: 38). "Trade" is very broadly defined in section 1 of the Income Tax Act as follows:

> … includes evert 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.

The trade definition includes every business or venture that is undertaken by a taxpayer. It is not, however, necessary that profits are derived in the ordinary cause of conducting the trade, as held (at 26) in *De Beers Holdings (Pty) Ltd v Commissioner for Inland Revenue*, 1985 SA 1, 47 SATC 229.

Crypto miners are clearly carrying on a trade, and should the value of their mined cryptocurrencies be less than the cost incurred to mine them, their activities continue to be a trade as defined, despite incurring losses (Moodley, 2011: 38). Corbett JA stated, in *De Beers Holdings v CIR*, the following regarding trade (at 26): "Of course, the attainment of a profit is not necessarily the hallmark of a trading transaction. A trader may for commercial reasons be compelled to resell goods at a loss. Conceivably also he may elect to resell goods at a loss in order to gain some other commercial advantage for his business." In *Burgess v Commissioner for Inland Revenue*, 1993 SA 511, 55 SATC 185, however, it was argued that a taxpayer is required to risk "something" with profit-making intentions to be seen to be carrying on a trade. Grosskopf JA (at 24) stated the following regarding the definition of a trade: "obviously [it is] intended to embrace every profitable activity and ... I think should be given the widest possible interpretation". It is therefore submitted that where taxpayers engage in a trade, but no profit is made and the intention to make a profit exists, the taxpayer is seen to be carrying on a trade.

Crypto miners have the intention to make a profit, even if this does not materialise, and are carrying on a trade. It is unlikely that a crypto miner would incur the substantial cost to acquire the computer equipment and software, together with the electricity cost of running the computer, merely as a hobby.

4.5 SPECULATING VERSUS INVESTING IN CRYPTOCURRENCIES

The acquisition of cryptocurrency by an individual or a crypto miner for the purposes of a profitable resale on a regular basis are subject to tax implications that differ from taxpayers who invest in cryptocurrencies as a store of wealth or a hedge against inflation.

4.5.1 Crypto Mining and Speculating in Cryptocurrencies

Expenditure incurred by crypto miners who regularly carry on the trade of crypto mining and by speculators in cryptocurrencies are tax-deductible, provided the expenditure complies with the preamble to section 11, section 11(a) and section 23(g) of the Income Tax Act.

Cryptocurrencies held in the furtherance of enterprise are considered as trading stock in the hands of a crypto miner or speculator, with normal trading stock provisions applying in terms of the provisions of section 22 of the Income Tax Act (SARS, 2018: Online).

Crypto miners who are carrying on a trade would also be entitled to deduct a wear-and-tear and other allowances on the equipment and software used for the purpose of crypto mining (section 11(e) and section 13*quin* of the Income Tax Act, and possibly section 12C – discussed below).

The application of the provisions of these sections of the Income Tax Act is discussed below.

4.5.2 Investing in Cryptocurrencies

The intention of a taxpayer is pivotal in the determination of whether the acquisition and disposal of cryptocurrencies is to be taxed as capital or revenue. Expenditure incurred by a person to acquire cryptocurrencies for the purpose of holding the currency without the intention of a profitable resale is considered capital in nature and subject to the provisions of the Eighth Schedule to the Income Tax Act governing the acquisition and disposal of capital assets and subjecting any gains and losses to capital gains tax. The discussion of the tests to be applied in determining whether the disposals of cryptocurrencies are of a revenue or capital nature are discussed in chapter 3 and determining the classification of the expenditure incurred to acquire the cryptocurrencies is discussed in this chapter.

Expenditure incurred by investors in cryptocurrencies is not deductible in terms of the "general deduction formula", as section 11(a) specifically disallows any expenditure or losses incurred that are of a capital nature.

Crypto assets (which include cryptocurrencies) are defined as "financial instruments" in terms of paragraph (f) of the definition in section 1 of the Income Tax Act and are therefore "assets" as defined in paragraph 1 of the Eighth Schedule to the Income Tax Act. Expenditure to acquire cryptocurrencies for investment purposes constitutes the base cost of the assets in terms of paragraph 20 of the Eighth Schedule to the Income Tax Act (discussed below).

Where the intention of a holder of cryptocurrencies changes from holding them for speculative purposes (thus as trading stock) to holding them for investment purposes, section 22(8)(v)(B) of the Income Tax Act includes the market value of the cryptocurrencies in income, and this value constitutes the base cost in terms of paragraph 20 of the Eighth Schedule to the Income Tax Act. Where the intention changes from holding cryptocurrencies as investments to holding them as trading stock the same principles apply.

4.6 THE PROVISIONS OF SECTION 11(a) – THE POSITIVE TEST

Section 11(a) of the Income Tax Act provides the "positive" test for the deduction of expenditure or losses actually incurred by a taxpayer in the production of income, that are not of a capital nature.

4.6.1 Expenditure or Losses

The first criterion in the general deduction formula refers to expenditure or a loss. The meaning of "expenditure or losses" is not defined in the Income Tax Act, and guidance is therefore sought from case law to derive the meaning. *Joffe & Co (Pty) Ltd v Commissioner for Inland Revenue*, 1946 AD 157, 13 SATC 354, established (at 360) that the word "losses had several meanings, and it was unclear that it meant anything other than expenditure". In *Joffe & Co v CIR* it was held (at 60): "… in relation to trading operations the word is sometimes used to signify a deprivation suffered by the loser, usually an involuntary deprivation, whereas expenditure usually means a voluntary payment of money."

In the case of cryptocurrencies, losses suffered include situations when the proceeds derived on disposal are less than the acquisition cost.

In *Commissioner for South African Revenue Service v Labat Africa (Pty) Ltd*, 2012 SA 613, 74 SATC 1, it was stated (at 12) that "obligations", "liability" and "expenditure" are not synonyms, however the terms "obligation" and "liability" were discharged within the meaning attributed to expenditure. In *CSARS v Labat* it was further held that the term "expenditure" was not defined in the Income Tax Act and as a result, its ordinary meaning should be attributed to the term. It was held (at 12) that the meaning ascribed to "expenditure" should be the "action of spending funds; disbursements or consumption; and thus, the amount of money spent".

Crypto miners incur expenditure during the process of crypto mining. The operating expenditure incurred is substantial, as large quantities of computer processing power are required to solve the cryptographic equations during the mining process. An estimated 1544 kWh is required to mine just one Bitcoin, and this equates to an average daily household electricity consumption of fifty-three days for an American household (Gonzalez, 2021: Online). There may be other expenditures, such as the rental of premises or equipment, maintenance, and repair of operating assets, etc. Crypto mining can be carried out by "proof-of-work" where many miners compete to solve the "hash", or by "proof-of-stake" where miners provide a "stake" to entitle them to mine. This also constitutes an expenditure.

Traders in cryptocurrency also incur expenditure in purchasing the cryptocurrency for the purpose of re-selling it, as well as other operating expenses. Cryptocurrencies may be used by businesses to purchase goods for re-sale or to be used to manufacture goods for re-sale – this would also involve expenditure.

4.6.2 Actually Incurred (in the Year of Assessment)

The meaning of "actually incurred" is not defined in the Income Tax Act. In *PE Electric Tramway v CIR* it was held (at 15) that amounts of expenditure have been "actually incurred" when there is a legal liability for their settlement. It was concluded by the court in *PE Electric Tramway v CIR* that, in the case of a debt, the mere fact that it exists, establishes that the amount of expenditure has actually been incurred.

Edgars Stores Ltd v Commissioner for Inland Revenue, 1988 SA 876, 50 SATC 81, established (at 86) that amounts are considered to be actually incurred once there is an "unconditional legal obligation" to settle the amounts that are due. The obligation to pay the utility bills, for example by crypto miners, is an unconditional legal obligation, independent of the mechanism of payment.

Although not specifically provided for in section 11(a) of the Income Tax Act, Botha JA stated the following (at 3) in *Caltex Oil (SA) (Pty) Ltd v Secretary for Inland Revenue,* 1975 SA 665, 37 SATC 1, regarding expenditure actually incurred: "It is in the tax year in which the liability for the expenditure is incurred, and not in the tax year in which it is actually paid (if paid in a subsequent year), that the expenditure is actually incurred for the purposes of s11(a)."

Incurring operating expenditure in respect of crypto mining, crypto trading, or purchases using cryptocurrencies, therefore constitutes a legal obligation for the payment, provided the liability to pay is unconditional.

Sub-Nigel Ltd v Commissioner for Inland Revenue, 1948 SA 580, 15 SATC 381, confirms (at 390) that expenditure incurred in the production of income is only deductible in the year of assessment the expenditure was incurred, and that expenditure cannot be carried forward to be claimed in subsequent years of assessment, nor can it be carried back and claimed in prior years of assessment. The court held the following (at 390): "For the whole scheme of the Act shows that, as the taxpayer is assessed for income tax for a period of one year, no expenditure incurred in a year previous to the particular tax year can be deducted."

In the case of cryptocurrencies, "unlike shares, the purchase price of the cryptocurrency is determined on the date … received" (SAIT, 2021c: 5). Thus, the general principle that the date on which expenditure is incurred is the date of the transaction, provided the obligation to pay is unconditional, does not apply to cryptocurrencies.

4.6.3 In the Production of Income

The determination of the meaning of "in the production of income" is sought from case law as the term is not defined in the Income Tax Act. The *PE Electric Tramway v CIR* case provides guidance regarding the "in the production of income" requirement of the general deduction formula (at 16) as follows:

> … income is produced by the performance of a series of acts, and attendant upon them are expenses. Such expenses are deductible, provided they are so closely linked to such acts as to be regarded as part of the cost of performing them …

and

> The purpose of the act entailing expenditure must be looked to. If it is performed for the purpose of earning income, then the expenditure attendant upon it is deductible.

Watermeyer AJP stated (at 14 & 17) in *PE Electric Tramway v CIR* that:

> … expenditure or losses could not directly produce income. Rather, income is produced by a series of operations and transactions entered into for the purpose of manufacturing or acquiring a saleable product and thereafter selling it or rendering services for which payment is received.

and he also indicated (as an *obiter dictum*) that:

> … for an expense to be deductible, the act must be bona fide done for the purpose of carrying on an income-producing trade ... unlawful or negligent acts are not bona fide and the related expenditure that arises from such acts would probably not qualify as a legitimate deductible expense.

Therefore, taxpayers need to satisfy the two-pronged test applied in the *PE Electric Tramway v CIR* case for amounts incurred to be considered as being incurred in the production of income, namely:

- firstly, to determine the purpose which the expenditure was incurred; and
- secondly to determine how closely connected the expenditure incurred relates to the business operations of the taxpayer.

The court decided in *Commissioner for Inland Revenue v Allied Building Society*, 1963 SA 1, 25 SATC 343, (at 120) that: “The enquiry is not concerned with whether a particular item of expenditure produced any part of the income, but whether that item of expenditure was incurred for the purpose of earning income.”

Expenditure incurred by crypto miners, such as the incurring of large electricity bills, the purchase of cryptocurrencies by traders in the currencies, the purchase of goods and services using cryptocurrencies, and general operating expenses, are incurred in the production of income.

4.6.4 Not of a Capital Nature

The last criterion for the deductibility of expenditure or losses actually incurred, during the year of assessment, in the production of income, is to enquire whether the expenditure is of a capital nature. The distinction between capital and revenue expenditure has long been debated in the South African courts, resulting in numerous guidelines to distinguish whether items of expenditure were incurred on capital or revenue account.

It was concluded (at 74) in *Commissioner for Inland Revenue v African Oxygen Ltd*, 1963 SA 681, 25 SATC 67, that there is no one conclusive test that sets precedence in determining the true nature of the amount of expenditure incurred, but the conclusiveness of the test would be based on a case-by-case basis. The dictum (at 170) stated in *New State Areas Ltd v Commissioner for Inland Revenue*, 1946 AD 610, 14 SATC 155, is regularly cited in the capital versus revenue discussion:

> The conclusion to be drawn from all of these cases seems to be that the true nature of each transaction must be enquired into it in order to determine whether the expenditure attached to it is capital or revenue expenditure. Its true nature is a matter of fact and the purpose of the expenditure is an important factor: if it is incurred for the purpose of acquiring a capital asset for the business it is capital expenditure, even if it is paid in annual instalments; if, on the other hand, it is in truth no more than part of the cost incidental to the performance of the income-producing operations, as distinguished from the equipment of the income-producing machine, then it is revenue expenditure, even if it is paid in a lump sum.

In the *New State Areas Ltd v CIR* case, it was held that expenditure incurred to acquire floating capital is tax-deductible (revenue in nature) whereas expenditure incurred to acquire fixed capital is not deductible (capital in nature).

Commissioner for Inland Revenue v George Forest Timber Co Ltd, 1924 AD 516, 1 SATC 20, further provides guidance (at 4) that “expenditure incurred to acquire a source of profit is considered capital in nature, whilst expenditure incurred to work a profit stream is revenue in nature”.

In *CIR v Genn & Co (Pty) Ltd*, 1955 AD, 20 SATC 113, it was stated that to make the distinction between capital and revenue expenditure, the determination of how closely connected incurring such expenditure is to the income producing operations will aid in the determination of the nature of such expenditure, having regard to the purpose for incurring the expenditure and what it effects.

It is submitted that operating expenditure incurred by crypto miners is revenue in nature, incurred with the intention to derive a source of income in the form of cryptocurrency and a fee, in the ordinary course of trade. The expenditure incurred by crypto traders is clearly revenue in nature, as the acquisition does not relate to acquiring a capital asset but acquiring stock-in-trade. The capital or revenue nature of expenditure incurred in the form of a cryptocurrency to acquire goods or services will depend on whether the goods or services form part of the income producing structure of the taxpayer, or the income-producing operations.

Crypto mining can be carried out by many miners all competing to solve the cryptographic algorithmic equations – this is known as "proof-of-work". On the other hand, miners can provide a "stake", entitling them to mine – this is known as "proof-of-stake". Miners can also "burn" their coins, entitling them to mine – known as "proof-of-burn" (Frankenfield: 2021, in Investopedia: Online). The question is whether the "stake", or the value of the coins "burnt", is of a capital nature incurred to secure the miner's income producing structure, or of a revenue nature incurred in respect of the miner's income producing operations (*New State Areas*). It is submitted that the "stakes burnt" are more likely to be of a revenue nature, as the miner will be carrying on an "operation of business" (*Pick 'n Pay Employee Share Purchase Trust*).

4.6.5 Conversion of Expenditure in Cryptocurrencies to Rand

Due to the volatile nature of cryptocurrencies, the recommendation was made in chapter 3 that section 25D could be amended to provide for revenue income in the form of a cryptocurrency to be converted to Rand using the average rate of exchange for the year of assessment, and paragraph 43 of the Eighth Schedule similarly amended to provide for amounts received of a capital nature. These amendments would also apply to revenue and capital expenditure, respectively.

4.7 PRE-TRADE EXPENDITURE – SECTION 11A

To qualify for deduction, expenditure must actually be incurred during the year of assessment in carrying on a trade, thus excluding expenditure incurred before commencing to trade, which would not be deductible at all. The deduction of pre-trade expenditure is, however, provided for in section 11A, which states the following:

> (1) For purposes of determining the taxable income derived during any year of assessment by a person from carrying on any trade, there shall be allowed as a deduction from the income so derived, any expenditure and losses –
>
> (a) Actually incurred by that person prior to the commencement of and in preparation for carrying on that trade;
>
> (b) Which would have been allowed as a deduction in terms of section 11 (other than section 11(x)), 11D or 24J, had the expenditure or losses been incurred after that person commenced carrying on that trade, and

(c) Which were not allowed as a deduction in that year or any previous year of assessment.

(2) So much of the expenditure and losses contemplated in subsection (1) as exceeds the income derived during the year of assessment from carrying on that trade after deduction of any amounts allowable in that year of assessment in terms of any other provision of this Act, shall not be set off against any income of that person which is derived otherwise than from carrying on that trade, notwithstanding section 20(1)(b).

The expenditure that section 11A covers applies to all expenditure incurred that would have been allowed as a deduction in terms of any subsection of section 11 (other than section 11(x), which refers to deductions in terms of any other provisions of the Income Tax Act, section 11D, which deals with expenditure on scientific or technological research and development, and section 24J, which provides for the incurral and accrual of interest). Once trading commences, this expenditure is deductible, but limited to the income derived from that trade, and not available for set-off against income from any other trade. Pre-trade expenditure in terms of section 11A cannot create a loss but serves to reduce the normal tax liability.

Section 11A applies to crypto miners in much as the same way it would apply to non-capital expenditure incurred by any taxpayer, prior to the commencement of and in preparation for their trade.

4.8 THE NEGATIVE TEST – SECTION 23(g)

Section 23(g) of the Income Tax Act provides the "negative test" of the "general deduction formula". Section 23(g) of the Income Tax Act states the following:

> No deductions shall in any case be made in respect of the following matters, namely –
>
> (g) any moneys, claimed as a deduction from income derived from trade, to the extent to which such moneys were not laid out or expended for the purposes of trade …

The definition of trade was discussed under sub-heading 4.4 of this chapter.

The "negative test" therefore provides that expenditure or losses incurred by a taxpayer that are expended on non-trade activities may not be claimed as a deduction against the taxpayer's income. Section 23(g) appears to sanction the apportionment of expenditure incurred for both trade and non-trade purposes. The apportionment of expenditure should, however, be made in a fair and reasonable manner, having due regard to the pertinent facts and circumstances.

Various court decisions have dealt with the apportionment of expenditure incurred by taxpayers during a year of assessment in the production of income. Corbett JA stated the following (at 958) in *Commissioner for Inland Revenue v Nemojim (Pty) Ltd*, 1983 SA 935, 45 SATC 241:

> As pointed out in the Rand Selections case supra at 131E-G, the Income Tax Act makes no provision for apportionment. Nevertheless, apart from the Rand Selections case, it is a device which has previously been resorted to where expenditure in a globular sum has been incurred by a taxpayer for two purposes, one of which qualifies for deduction and one of which does not ... It is a practical solution to what otherwise could be an intractable problem and, in a situation, where the only other answers, viz disallowance of the whole amount of expenditure or allowance of the whole thereof, would produce inequity or anomaly one way or the other. In making such an apportionment the Court considers what would be fair and reasonable in all the circumstances of the case.

Where crypto miners use computer equipment in the crypto mining venture and for private use as well, the apportionment of the section 11(e) allowance may apply. The apportionment may be based on the time used for trade purposes and for private purposes.

Section 23(b) of the Income Tax Act states the following:

> No deduction shall in any case be made in respect of the following matters, namely –
>
> (a) the cost incurred in the maintenance of any taxpayer, his family or establishment;
>
> (b) domestic or private expenses, including the rent of or cost of repairs of or expenses in connection with any premises not occupied for the purposes of trade or of any dwelling-house or domestic premises except in respect of such part as may be occupied for the purposes of trade: Provided that –
>
> (a) such part shall not be deemed to have been occupied for the purposes of trade, unless such part is specifically equipped for purposes of the taxpayer's trade and regularly and exclusively used for such purposes; and
>
> (b) no deduction shall in any event be granted where the taxpayer's trade constitutes any employment or office unless—
>
> (i) his income from such employment or office is derived mainly from commission or other variable payments which are based on the taxpayer's work performance and his duties are mainly performed otherwise than in an office which is provided to him by his employer; or
>
> (ii) his duties are mainly performed in such part …

Crypto miners may occupy part of their private homes for the purposes of their trade of crypto mining. An apportionment of the expenditure relating to their homes, such as the interest on the mortgage loan used to acquire the home, or rental for the home, together with municipal charges, repairs and maintenance, and other non-capital expenses. will be permitted. This will probably be calculated based on the floor area occupied for trade purposes, in relation to the total floor area of the home. The deduction of the apportioned cost would only be granted if the area is specifically equipped for this purpose and regularly and exclusively used for the purpose of crypto mining.

4.9 CAPITAL ALLOWANCES

Computer equipment and large processors used in the mining process to decipher the cryptographic algorithmic equations are capital in nature, as they form part of the income producing structure (*New State Areas v CIR)*. Such capital expenditure incurred to acquire a capital asset may qualify for a section 11(e) capital allowance. Expenditure incurred to acquire other capital assets, such vehicles, furniture, and fittings, etc. used to produce income, would also qualify for the section 11(e) allowance, while the acquisition of fixed property in which crypto mining operations are carried on will qualify for an allowance in terms of section 13*quin* of the Income Tax Act.

4.9.1 Section 11(e) of the Income Tax Act

Section 11(e) of the Income Tax Act provides a wear-and-tear allowance for taxpayers who own or acquire an asset in terms of an "Instalment Credit Agreement", used for the purposes of the taxpayer's trade, and the value of the asset has diminished due to wear and tear. Section 11(e) deals solely with moveable assets, namely, machinery, plant, implements, utensils, and articles.

The section 11(e) allowance is granted on the value of the asset once the asset is brought into use in the taxpayer's trade. The value of the asset subject to the allowance is either the direct cost of acquisition or the market value, plus the direct cost of installation and moving costs, but excluding finance charges. Foundations and supporting structures that are designed and regarded as an integral part of the asset should be capitalized as part of the cost of the asset, with the useful life limited to the useful life of the asset itself.

The section 11(e) allowance is calculated either by the straight line or diminishing balance method in terms of Binding General Ruling 7 – Wear-and-Tear or Depreciation Allowance (SAICA, 2022: 313), starting from the date the asset is first brought into use. The section 11(e) allowance provides for the apportionment for parts of a period in which the item of property has been brought into use during the year of assessment for both new and second-hand assets.

In terms of Binding General Ruling 7, the cost of "small" items such as loose tools may be written off in full in the year of assessment in which they are acquired and brought into use. A "small" item in the context of section 11(e) is one which normally functions on its own, does not form part of a set and is acquired at a cost of less than R7 000.00 (value-added tax exclusive). The cost of main frame computers is written off over a period of five years, personal computers, and computer software over a period of three years.

In the case of crypto mining, when the crypto miner applies the item of property for the purposes of crypto mining, such as running of the crypto mining software to solve the relevant cryptography on the computer equipment, the section 11(e) allowance will apply. Where the asset is used partly for the purpose of the trade of crypto mining and partly for personal use, an apportionment will apply (section 23(g) of the Income Tax Act).

4.9.2 Section 13*quin* of the Income Tax Act

Section 13*quin* of the Income Tax Act provides for the deduction from a taxpayer's income for the year of assessment and each succeeding year of assessment an allowance of 5% on the cost (the actual cost or the arm's-length cost) of any new or unused commercial building (or improvement to the building) owned by the taxpayer, and wholly or mainly used for the purpose of producing income in the course of the taxpayer's trade.

Crypto miners who operate in a partnership with other miners in a crypto "farming" venture (refer to section 4.13.2 below) may erect, purchase, or make improvements to a warehouse or other commercial building and use it for the purpose of their trade, and may therefore deduct the allowance of 5% on the cost. Where the building is "mainly" (more than 50%) used for this purpose, the full allowance will still apply. Where the use is 50% or less, it appears that the allowance will not apply.

4.9.3 “Proof-of-Burn” Mining

Generally, in the case of “proof-of-burn” mining, the “burnt” coins gradually decrease in value, to prevent the miners who burn the greatest value in coins being able to earn more and more cryptocurrency awards. The burning of coins is sometimes colloquially referred to as acquiring a “mining rig” – that is a capital asset in the nature of plant – used to produce cryptocurrency. If this metaphor is carried further, possibly an allowance in terms of section 12C of the Income Tax Act would apply.

4.10 CAPITAL GAINS TAX CONSEQUENCES

The capital gains tax consequences of cryptocurrency amounts received by or accruing to crypto miners or investors were discussed in some detail in chapter 3. Where expenditure incurred by crypto miners or investors is of a capital nature, the provisions of the Eighth Schedule to the Income Tax Act will apply. The acquisition cost of the cryptocurrencies in the hands of crypto investors will constitute the base cost of the assets. Where cryptocurrencies are earned by crypto miners, and then held for investment purposes, and later disposed of, the value of the cryptocurrencies will form the base cost in terms of paragraph 20(1)(a) of the Eighth Schedule as “expenditure actually incurred in respect of the cost of … that asset”.

A recommendation was made in chapter 3 that section 25D of the Income Tax Act and paragraph 43 of the Eighth Schedule to the Income Tax Act be amended to provide for the conversion of cryptocurrencies to Rand using the average rate, in the case of individuals. This would apply to both income and expenses, in the hands of individuals, and for both capital and revenue amounts.

In Bitcoin News (2021: Online), it was reported that United States of America lawmakers propose to subject cryptocurrencies to the “wash sale” rule. Paragraph 42 of the Eighth Schedule to the Income Tax Act contains a “wash sale” rule dealing with losses on the short-term acquisition and disposal of identical financial instruments. Where a person incurs a capital loss on the disposal of a financial instrument, and within a period beginning 45 days before the date of disposal and ending 45 days after that date, that person (or a connected person) acquires or has entered into a contract to acquire a financial instrument of the same kind and of the same or an equivalent quality, the person disposing of the financial instrument is treated as having disposed of it at its base cost. Therefore, the capital loss is disregarded. The person acquiring the financial instrument (the same person or a connected person) is treated as having acquired the financial instrument at the cost of acquisition and any other costs forming part of the base cost, together with the capital loss that would have arisen in the hands of the person disposing of the financial instrument. Thus, this delays the recognition of the loss on disposal until the replacement financial instrument is disposed of. As cryptocurrencies are by definition financial instruments, this paragraph would apply to their disposal at a loss and subsequent re-acquisition within the stipulated period.

4.11 ASSESSED LOSSES – SECTION 20

Taxpayers may set off assessed losses suffered in prior years of assessment against income in the current year of assessment in the determination of their taxable income from the carrying on of a trade. Assessed losses are dealt with in section 20 of the Income Tax Act (but subject to the provisions of section 20A). Section 20(1)(a) and section 20(1)(b) provide for the set off against the current year's income of:

> (a) any balance of assessed loss incurred by that person in any previous year which has been carried forward from the preceding year of assessment: Provided that no person whose estate has been voluntarily or compulsorily sequestrated shall be entitled to carry forward any assessed loss incurred prior to the date of sequestration, unless the order of sequestration has been set aside, in which case the amount to be so carried forward shall be reduced by an amount which was allowed to be set off against the income of the insolvent estate of such person from the carrying on of any trade;
>
> (b) any assessed loss incurred by a person during the same year of assessment in carrying on any other trade either alone or in partnership with others, otherwise than as a member of a company the capital whereof is divided into shares:

An assessed loss is defined in section 20(2) of the Income Tax Act as "any amount by which the deductions admissible under section 11 exceeded the income in respect of which they are so admissible". Section 11 is referred to in the definition of assessed losses, as the provisions of section 11(x) of the Income Tax Act bring within the ambit of section 11, "all amounts which in terms of any other provisions in this part are allowed to be deducted from the income of the taxpayer".

Losses suffered through the crypto mining process, or by traders in cryptocurrencies, are subject to the application of the provisions of section 20(1). Crypto mining will qualify as a trade. Speculation in cryptocurrencies will also constitute a trade. Losses incurred in a year of assessment in the cryptocurrency mining process carried on as a trade, and by crypto traders, will be deductible in the following year of assessment.

Proviso (b) to section 20(1) of the Income Tax Act, provides that assessed losses incurred by a taxpayer during a specific year of assessment or the balance of assessed losses incurred in prior years of assessment, in the carrying on of a trade outside the Republic, cannot be set off against amounts of income derived locally in the Republic. In the case of crypto miners who have operations globally, they may not set off any foreign assessed losses suffered from their crypto mining operations abroad against any locally derived crypto mining profits.

Section 20(1) of the Income Tax Act provides that companies that fail to carry on a trade during a year of assessment forfeit any assessed losses previously carried forward for set off in a subsequent year of assessment (*SA Bazaars (Pty) Ltd v Commissioner for Inland Revenue*, 1952 SA 505, 8 SATC 240). However, section 20(2A) of the Income Tax Act provides that in the case of taxpayers other than a company, assessed losses or the balance of assessed losses may be set off against income derived otherwise than from that trade. Furthermore, section 20(2A) provides that the balance of assessed losses incurred by a taxpayer other than a company in previous years of assessment can be carried forward, despite no trade being carried on by the individual taxpayer. Only crypto miners that are registered as companies and have failed to carry on their trade for a year of assessment would lose any assessed loss from a previous year of assessment.

The decision in *Commissioner for South African Revenue Service v Contour Engineering (Pty) Ltd*, 1999 (E), 61 SATC 447, extended the definition of trade by stating that trade commences when an "active step" is taken to derive income. It is submitted that crypto miners are considered to have taken an "active step" to trade when the necessary computer equipment is switched on with the relevant crypto mining program running and attempting to solve cryptographic algorithmic equations. Thus, although no income may be derived during that first year of assessment, the loss can be carried forward by crypto miners.

4.12 RING-FENCING OF ASSESSED LOSSES – SECTION 20A

Section 20A of the Income Tax Act ring-fences assessed losses incurred by natural persons from the carrying on of a trade and provides that such losses may not be set off against income derived by the taxpayer other than from that trade, notwithstanding the provisions of section 20(1)(b). Section 20A(2) provides the following requirements for the ring-fencing of assessed losses:

> Subsection (1) applies where the sum of the taxable income of a person for a year of assessment (determined without having regard to the other provisions of this section) and any assessed loss and balance of assessed loss which were set off in terms of section 20 in determining that taxable income, equals or exceeds the amount at which the maximum marginal rate of tax chargeable in respect of the taxable income of individuals becomes applicable.

The section 20A(2) ring-fencing provisions therefore only apply when the taxpayer's taxable income from sources other than the sources referred to in section 20A(2) equals or exceeds the amount at which the maximum marginal tax rate is applicable. The current maximum marginal tax rate applicable to individual taxpayers for the 2022 year of assessment is 45%, which applies to taxable income of R1 731 601 and above.

The provisions of section 20A(2)(b) of the Income Tax Act limit the set-off of assessed losses against taxable income, by ring-fencing losses incurred by taxpayers from the carrying on of a "suspect trade". Section 20A(2)(b)(ix) specifies the activities carried on by taxpayers that are suspect in nature, including the acquisition and disposal of any crypto asset as defined:

> … the trade contemplated in subsection (1), in respect of which the assessed loss was incurred constitutes—
>
> (ix) the acquisition or disposal of any crypto asset.

Section 20A(2)(b)(ix) therefore regards the acquisition and disposal of cryptocurrencies as a suspect trade. This provision automatically ring-fences any gains and losses derived through the acquisition and disposal of cryptocurrencies.

The effect of this provision ensures that should a taxpayer's taxable income (in this case a crypto miner or crypto trader) fall below the maximum marginal tax rate threshold, the application of the provisions of section 20A will not apply in respect of that specific year of assessment. However, ring-fenced losses will be rolled forward continuously until such time taxable income is earned from which these ring-fenced assessed losses can be set off.

4.13 OTHER TAX CONSEQUENCES

There are two further instances where provisions of the Income Tax Act may have specific consequences for crypto miners and speculators.

4.13.1 Trading Stock Provisions

The value of cryptocurrency awards earned by crypto miners who then deal with the currencies as trading stock, and the acquisition price paid by speculators in the currencies, where the cryptocurrencies have not been disposed of, must be recorded as closing stock at the end of the year of assessment and as opening stock at the beginning of the next year of assessment. As a financial instrument, if the value of the cryptocurrency has declined, no write down of the value of the trading stock is permitted (section 22(1)(b) of the Income Tax Act).

4.13.2 Partnership Agreements

Because of the heavy cost required to mine cryptocurrencies, many crypto miners are carrying on their activities as a group, usually in a warehouse, sharing expenses and sharing the cryptocurrency awards – referred to as "crypto farming". This constitutes a partnership, and each partner must declare his or her partnership profits and losses in his or her tax return, as a partnership is not a "person" as defined in section 1 of the Income Tax Act and is therefore not taxed in its own right. Section 24H(2) deems each member of a partnership to be carrying on a trade or business. Section 24H(5)(a) provides that each partner is deemed to have received his or her share of the partnership income in terms of the partnership agreement, on the date received by or accrued to the partners in common, and section 24H(5)(b) provides for the deduction of the share of partnership expenditure and allowances by each partner.

In certain instances, one member of a crypto mining partnership may be a "limited partner" in terms of section 24H(1), if the member's liability towards a creditor of the partnership is limited to the amount he or she has contributed or undertaken to contribute to the partnership. This partner may only contribute funds to the partnership and will not engage in mining activities, but will still be carrying on a trade. The deduction of allowances or expenditure of this limited partner, however, is limited in terms of section 24H(3) to the amount contributed and any income received or accrued from the partnership. The disallowed portion of the allowances or expenditure is carried forward and qualifies for deduction in the following year of assessment.

4.14 CONCLUSION

This chapter has explained that expenditure or losses incurred by a taxpayer must comply with both the positive and negative tests of the "general deduction formula", comprising the preamble to section 11, section 11(a) and section 23(g) of the Income Tax Act, together with the principles established in case law.

The first requirement is that the taxpayer must be carrying on a "trade" as defined in section 1 of the Income Tax Act. It is not, however, necessary that profits are derived in the ordinary cause of conducting the trade, as was held in *De Beers Holdings (Pty) Ltd v CIR. Burgess v CIR,* where it was established that the definition of trade includes all profitable activities, and that the trade definition should be given the "widest" possible interpretation. Crypto mining activities and speculating in cryptocurrencies were determined to be a trade as defined, and any expenditure or losses incurred by crypto miners and speculators are tax deductible provided they satisfy all the requirements set out in the "general deduction formula".

Section 11(a) provides for the deduction of amounts that constitute the incurring of expenditure or losses. The *Joffe v CIR* case considered that there was little to differentiate expenditure and losses. In the *CSARS v Labat* case it was held that "expenditure" should mean the "action of spending funds; disbursements or consumption; and thus, the amount of money spent".

With regard to the "actually incurred" requirement, it was concluded that amounts should represent an unconditional legal obligation to pay, as established in *Edgars Stores v CIR*. In *Sub-Nigel v CIR* it was held that for amounts to actually be incurred, does not mean that they have to produce income during the current year of assessment to qualify as a deduction, if such expenditure was incurred by the taxpayer for the purpose of producing income. When incurred by crypto miners, however, the date the cryptocurrency is received will apply, and not the date the expenditure to acquire the cryptocurrency was incurred (SAIT, 2021c: 5).

Section 11(a) provides that expenditure or losses must be incurred "in the production of income". *Joffe v CIR* and *PE Electric Tramway v CIR* held that for expenditure to qualify for deduction, the expenditure must satisfy two questions:

- how closely linked the expenditure incurred was to the business operations of the taxpayer; and
- whether the expenditure incurred was an "inevitable concomitant" of the income producing activities.

In the case of crypto mining, the incurring of certain expenditure, such as the high costs of electricity bills, are considered to be expenditure actually incurred in the production of income as the expenditure is used to power the computer equipment for the mining process. Expenditure incurred in the mining process is closely connected to the crypto mining operations and the running expenses are an inevitable concomitant of the income producing activities associated with crypto mining.

Section 11(a) also provides that expenditure of a capital nature is not deductible for tax purposes. Expenditure incurred in the acquisition of fixed capital is capital in nature, whereas the expenditure incurred to acquire floating capital is revenue in nature (*New State Areas v CIR*). *CIR v George Forest Timber Co* established that expenditure incurred to acquire a source of profit is capital in nature, while expenditure incurred to work a profit stream is revenue in nature. Expenditure incurred to acquire or expand the income earning structure is capital, while income incurred in utilising the capital structure is revenue in nature (*New State Areas v CIR*). Therefore, the acquisition of computer equipment and programs used in the mining process constitute the acquisition of fixed capital – the income-earning structure – and the expenditure incurred in running the mining venture is floating capital – the income-earning operations.

The negative test in section 23(g) of the Income Tax Act provides that the deduction of expenditure will be disallowed to extent that such expenditure was not laid out for the purposes of carrying on a trade. This would require the apportionment of expenditure incurred for trade and non-trade purposes, apportioned on a reasonable basis. Computer equipment could be used for both crypto mining and private purposes. Although prohibited by section 23(b) as private expenses, crypto miners may be able to deduct a percentage of expenses in respect of part of their private homes used for mining purposes.

Where expenditure is of a capital nature, the provisions of the Eighth Schedule to the Income Tax Act would apply to establish the capital gain or loss, the taxable gain being included in income in terms of section 26A of the Income Tax Act. The provisions of paragraph 42 of the Eighth Schedule would apply to the short-term disposal and acquisition of cryptocurrencies disposed of at a loss.

Sections 20 and section 20A of the Income Tax Act govern assessed losses. Section 20 deals with the set off of assessed losses incurred in carrying on a trade against income earned in the following year of assessment. Section 20A(2)(b)(ix) includes the acquisitions and disposals of crypto assets as a listed suspect trade. Therefore, any losses suffered by a crypto miner or crypto trader as a secondary trade, where the taxable income from the primary trade exceeds the amount subject to the maximum marginal rate of tax, are only available for set off against crypto profits derived in a future year of assessment.

The cost of computer equipment, computer software and other capital costs incurred in cryptocurrency mining would qualify for capital allowances in terms of section 11(e) and

13*quin* of the Income Tax Act, and the cryptocurrency "coins burnt" to acquire the right to mine, may qualify for the section 12C allowance on the plant.

The trading stock provisions in section 22 of the Income Tax Act would apply to crypto currencies held for speculation purposes, with opening and closing stock being accounted for at cost, with no write-down below cost being permitted. Crypto miners carrying on their trade as crypto "farmers" would be subject to section 24H of the Income Tax Act, and each miner would be entitled to deduct a share of partnership expenses according to the profit-sharing ratio provided for in the agreement.

In the following chapter, the taxation of cryptocurrencies in Australia will be discussed.

CHAPTER 5: AN ANALYSIS OF THE TAXATION OF CRYPTOCURRENCIES IN AUSTRALIA AND RECOMMENDATIONS FOR SOUTH AFRICA

5.1 INTRODUCTION

In addressing the third and fourth sub-goals of the research, this chapter discusses the tax approach to cryptocurrencies adopted by the Australian Tax Office (“ATO”). The key reason for this is to determine the regulatory approach adopted by the ATO for the establishment of a coherent tax framework for cryptocurrencies, which could be adopted in South Africa. Australia was the country of choice for this research as it is considered a proactive leader in adopting policies and procedures in the tax sphere regulating the acquisition and disposals of cryptocurrencies in its network of registered taxpayers (Hugo, 2022: Online).

Australia is amongst a handful of countries globally that have promulgated laws and regulations governing cryptocurrencies. An estimated 18.4% of the Australian population currently owns one or more cryptocurrency, with Bitcoin leading the Australian cryptocurrency market with a total trade volume of $54.8 million (Granwal, 2021: Online). With the ever-increasing trade in cryptocurrencies and the lack of regulatory framework governing cryptocurrency transactions at the time, cryptocurrency transactions were subject to inquiry by the Commonwealth Senate Economics References Committee (Kearns, 2014: 1).

The ATO, in its initial phase of promulgating laws and regulations to govern the tax treatment of cryptocurrencies, published a legally binding public ruling providing specific guidance on the tax treatment of Bitcoins, having regard to the practice of “good tax” principles first enunciated by Adam Smith during the Eighteenth Century (Emery, 2016: 6). The “good tax” principles remain a fundamental aspect that influences the promulgation, drawing, and enactment of Australian tax policies, rules, and regulations, (Emery, 2016: 6). The “good tax” principles were reiterated in two Australian tax reform papers, namely the Henry Review and the Re-Think Tax Discussion Paper, with both stating that the country’s tax system should in essence at a minimum, “meet its purposes efficiently, equitably, transparently, and effectively” (Law Council of Australia, 2015: 2).

This chapter discusses the ATO’s rulings and tax treatment of cryptocurrencies, governing the activities associated with crypto trading and mining, the acquisition and disposal of cryptocurrencies as an investment instrument, or in a barter transaction in the furtherance of an enterprise, that could be adopted in South Africa for cryptocurrency transactions. The Australian Fringe Benefits Tax Act, No. 39 of 1986 ("Fringe Benefits Tax Act") dealing with the receipt of cryptocurrencies as part of a valid salary sacrifice will also be briefly discussed.

5.2 CHARACTERISATION OF CRYPTOCURRENCIES

The ATO confirmed that Bitcoin, among other cryptocurrencies, is neither money nor foreign currency. The ATO (similar to the approach in South Africa) is of the opinion that cryptocurrencies are to be characterized as financial commodities and not normal fiat currency (Hayes, 2014: 52). Emery (2016: 7) stated that the ATO's stance on the characterization of cryptocurrency as a financial commodity and not normal fiat currency arose from its failure to meet the ascribed definition of money in terms of both the Income Tax Assessment Act and Goods and Services Tax Act, No. 55 of 1999 (Cth) ("Goods and Services Tax Act"), despite its purported functional use as money. The ATO broadly concluded on the characterization of cryptocurrencies by making the following statement (at 33) in Tax Determination 2014/25: "As Bitcoin is not a monetary unit recognised and adopted by the laws of any other sovereign State as the means for discharging monetary obligations for all transactions and payments in a sovereign State, it is not 'foreign currency'." And further stating (at 66) that: "Bitcoin is not a legally-recognised universal means of exchange and form of payment by the laws of Australia or the laws of any other country. Therefore, it is not currency."

5.3 AUSTRALIAN TAX OFFICE RULINGS

Cryptocurrency was considered for Australian taxation by the ATO during December 2014, with tax rulings and guidance papers issued by the ATO to clarify and provide concise tax treatments on the acquisition, holding, and disposal of cryptocurrencies, within its current legislative regulatory tax framework (Emery, 2016: 7). This was followed by the release by the Commissioner of the ATO of tax rulings and guidance papers outlining the tax characterization of receipts, accruals, and disposals of cryptocurrencies in terms of the Income Tax Assessment Act, No. 27 of 1936 (Cth) ("Income Tax Assessment Act"). The guidance papers issued were predominantly based on three published Tax Determinations, namely:

1. Tax Determination 2014/25: Income Tax: is Bitcoin a foreign currency for purposes of Division 775 of the Income Tax Assessment Act?
2. Tax Determination 2014/26: Income Tax: is Bitcoin a CGT asset for the purposes of subsection 108-5(1) of the Income Tax Assessment Act? and

3. Tax Determination 2014/27: Income Tax: is Bitcoin trading stock for the purposes of subsection 70-10(1) of the Income Tax Assessment Act? (Berger, 2016: 24).

The different tax types and tax treatment recommended by the ATO are discussed below.

5.4 INCOME TAX ASSESSMENT ACT

The Income Tax Assessment Act recognizes amounts received from the carrying on of any business enterprise as assessable income. Assessable income comprises of the amount of money received or earned in the ordinary course of trade (Emery, 2016: 8). Section 25A of the Income Tax Assessment Act requires all registered taxpayers in Australia to account for profits derived through the sale of property acquired as trading stock for the purposes of making a profitable resale, or from the carrying on of a scheme of profit making, as part of the determination of assessable income.

Emery (2016: 8) stated that the ATO provides the guidance that "where Bitcoin is used as payment, the transaction is taxed as a barter transaction". Barter transactions are concluded by way of the exchange of goods, services, cash, or credit, which should form part of the calculation of the taxpayer's assessable income, as held in Taxation Ruling IT 2668 (at 2), depending on the nature of the transaction that gave rise to the proceeds on concluding the barter transaction. Bartering is currently defined in Taxation Ruling IT 2668 (at 1) as follows: "bartering involves the direct exchange of goods or services for other goods or services without reference to money or a money value". It was further held in Taxation Ruling IT 2668 (at 2) that only amounts or items received in exchange and upon the conclusion of a barter transaction for the purposes of carrying on a trade, would be considered for inclusion in the determination of a taxpayer's assessable income at its monetary value's worth, as was decided in *Federal Commissioner of Tax v Cooke & Sherden*, 1980 ATR 10, 80 ATC 4140. Section 21(1) of the Income Tax Assessment Act specifically provides for the following with regard to payments received in exchange for goods or services, otherwise than in cash: "where, upon any transaction, any consideration is paid or given otherwise than in cash, the money value of that consideration shall, for the purposes of this Act, be deemed to have been paid or given", thus aligning with the decision reached in *FCT v Cooke & Sherden*. Tax Determination 2014/25 provided (at 2) that an arm's length Australian Dollar value should be attached to the value of cryptocurrencies that are used in the conclusion of barter transactions as payment for goods or services. Consequently, the trading vender will account for the arm's length Australian Dollar value of the cryptocurrencies received in exchange for goods or services when determining the vendor's assessable income for a year of assessment.

It is submitted, supported by the decision in *FCT v Cooke and Sherden*, that should cryptocurrencies be used as a medium of exchange for goods and services as part of conducting ordinary business operations, the value of the cryptocurrencies exchanged should be included as part of the taxpayer's ordinary business income denominated and recorded in Australian Dollars at the time of exchange. Taxation Ruling 2668 (at 1) considers this as the same process followed under a barter transaction where non-cash considerations are received in exchange for goods and services.

All expenditure incurred by a taxpayer in the production of income is considered for and entitled to a tax deduction. Therefore, cryptocurrencies used as a medium of exchange are subject to a tax deduction, valued at its arm's length value, provided the expenditure incurred was in the furtherance of an enterprise (Australian Taxation Office, 2021b: Online). In determining the arm's length value of cryptocurrency, the fair market value of the cryptocurrency exchanged will be considered, valued using the Australian Dollar denomination from a reputable crypto exchange (Australian Taxation Office, 2021b: Online).

A cryptocurrency tax treatment Guidance Paper, Taxation Ruling IT 2668, suggested (at 2) that should a taxpayer actively conduct a trade as a cryptocurrency exchange agency or as a crypto miner, all proceeds derived from the sale of their cryptocurrency holdings would be subject to inclusion in the determination of their assessable income. Tax Determination 2014/25 stated (at 3) that all expenses incurred in respect of a cryptocurrency exchange agency or crypto miner are tax-deductible against the assessable income derived by the exchange agency or miner in question.

Tax Determination 2014/25 further held (at 3) that all cryptocurrencies held by a cryptocurrency exchange agency will be considered as trading stock used in the production and in the furtherance of enterprise. Acquisitions and disposals of cryptocurrency in the process of crypto mining will be treated as trading stock in the crypto miner's hands subject to the normal trading stock provisions provided for in the Income Tax Assessment Act (Wicht, 2016: 56). Tax Determination 2014/25 stated (at 3) that the opening and closing stock of a cryptocurrency exchange agency should be accounted for at the end of each year of assessment when determining the assessable income, subjecting it to normal income tax provisions. On declaration of the crypto miner's annual tax returns, an account of both the opening and closing stock are to be accounted for, forming part of the submission of their annual tax declarations at year end (Sargent, 2021: Online).

Cryptocurrency mining

The process of "Bitcoin mining" and the mining of cryptocurrencies, as stated in Tax Determination 2014/25, is the process whereby cryptographic equations are solved and through the solving of the cryptography equations, Bitcoin (like other cryptocurrencies) is released into circulation as compensation for the use of the miner's computer software and processing power. The crypto miner essentially verifies and validates transactional transfers between parties in the form of cryptography, as explained in Tax Determination 2014/25 (at 3). Tax Determination 2014/25 states (at 4) that remuneration is only provided to the first "miner" who successfully solves and validates the cryptography and the specified "reward" in new cryptocurrencies is transferred to the miner's "Bitcoin address" and other cryptocurrency "wallets". In instances where a registered taxpayer conducts business as a crypto miner, any income derived from the transfer of cryptocurrencies to a third party should be considered for income tax and form part of the taxpayer's assessable income for the relevant year of assessment in which it was derived (Australian Taxation Office, 2020: Online).

The ATO states that expenditure or losses incurred by a crypto miner are claimable as a tax deduction against the miner's assessable income (Australian Tax Office, 2020: Online). The deduction is only available to crypto miners, provided the cryptocurrencies acquired through the mining process are classified as trading stock in nature, and subject to the trading stock rules provided in the Australian Income Tax Assessment Act, consequently treating all cryptocurrency sales as business income (Sargent, 2021: Online). Thus, disposals of cryptocurrencies by crypto miners are automatically regarded as being of a revenue nature. In South Africa the principles established by the courts and the facts of each case will determine whether, when a crypto miner disposes of cryptocurrency, he or she has acquired in the mining process, the proceeds will be of a capital or revenue nature.

The ATO stated that losses suffered by a crypto miner may be subject to non-commercial loss provisions of the Australian Income Tax Assessment Act (Australian Taxation Office, 2020: Online). Prior to the offset of business losses against the miner's assessable income, the following requirements need to be met (Wicht, 2016: 55-56):

- The crypto mining business must derive and earn some other form of income apart from cryptocurrency profits from the sale of trading stock as defined that is less than AUD 250 000.00.

Once the income requirement has been met, the crypto mining entity must meet one of four requirements:

- The assessable income test: the business had assessable income of at least AUD 20 000.00; or
- The profits test: the business had a profit for tax purposes in three out of the past five years (including the current year); or
- The real property test: the value of the real property or of an interest in real property used in the business on a continuing basis was at least AUD 500 000.00; or
- The other assets test: the value of assets (excluding real property, cars, motorcycles, and similar vehicles) used on a continuing basis in carrying on the business was at least AUD 100 000.00.

This is similar to the South African ring-fencing provisions in section 20A of the Income Tax Act.

The provisions of CGT in relation to the acquisition, sale and incurring of tax-deductible expenditure are discussed below.

5.5 CAPITAL GAINS TAX IMPLICATIONS

Capital gains tax implications may arise for transactions that involve the disposal of an asset, as stated in IT 2668 (Berger, 2016: 27). Taxpayers are subject to Australian capital gains tax on the acquisition and disposal of capital assets, which forms apart of normal income tax (Australian Taxation Office, 2020: Online). Capital gains or losses are determined as the difference between the original acquisition cost and the proceeds on disposal (Australian Taxation Office, 2020: Online).

Prior to the issue of the legally binding Tax Determination ruling, the ATO had to determine whether Bitcoin and other cryptocurrencies met the definition of a capital gains tax asset in terms of section 108-5(1) of the Income Tax Assessment Act. Bitcoin, in conjunction with other cryptocurrencies, was classified as a capital gains tax asset, based on a legally binding Tax Determination ruling by the ATO (Australian Taxation Office, 2020: Online). Capital gains tax assets are defined as "any kind of property; or a legal or equitable right that is not property", in terms of section 108-5(1). Again, this approach is the same as the South African approach; a cryptocurrency, as a financial instrument, is an asset for capital gains tax purposes.

The High Court of Australia, in the case of *Yanner v Eaton*, 1999 HCA 53, 201 CLR 351, held that the term "property" has a concise definition, defined (at 7) as "a legal relationship with a thing, rather than the thing itself". Moreover, the High Court held (at 7) that the legal relationship meant nothing other than "the degree of power that is recognised in law as permissibly exercised over the thing". Tax Determination 2014/26 stated (at 3) that the ATO acknowledged that no single test or single determinative factor exists for the identification of proprietary rights to existing property. Tax Determination 2014/26 further stated (at 4) that the pertinent relationship between the acquisition, disposal and holding of cryptocurrencies needs to be determined and the relationship between the following needs to be established:

(i) The object or thing, cryptocurrency, being the digital representation of value constituted by three interconnected pieces of information (a cryptocurrency address; the cryptocurrency holding or balance in that address; and the public and private key-pair associated with that address); and
(ii) The bundle of rights ascribed to a person with access to the cryptocurrency under the cryptocurrency software and by the community of cryptocurrency users.

In the Tax Determination 2014/26 ruling the ATO stated (at 4) that the most important of the cryptocurrency holding rights pertained to the right of control over the cryptocurrencies held in the holder's virtual cryptocurrency wallet. It was submitted that cryptocurrencies are compellingly treated as valuable items of property, transferrable between investors and speculators of virtual currencies. The ATO decided in Tax Determination 2014/26 (at 4) that the holding right of cryptocurrencies amounts to property as defined in terms of section 108-5(1)(a) of the Income Tax Assessment Act. Consequently, gains or losses derived from the acquisition and disposal of cryptocurrencies by non-speculators in cryptocurrencies are subject to capital gains tax implications in terms of Tax Determination 2014/26 (at 4). Cryptocurrencies are therefore classified as capital gains tax assets for the purposes of section 108-5(1)(a) of the Income Tax Assessment Act. As in South Africa, a distinction is made between trading and investing in cryptocurrencies.

Section 104-10(1) of the Income Tax Assessment Act considers the disposal of cryptocurrency to third parties as a capital gains tax event classified as an "A1 disposal of a capital gains tax asset". Table: 5.1 below details the classification of an asset as being an A1 capital asset:

Table 5.1: Disposal A – A1 Capital Gains Tax Asset

CGT event	Time of event	Capital gain	Capital loss
A1 – Disposal of a CGT asset	When the disposal contract is entered into or, if none, when the entity stops being the asset's owner	The capital proceeds from disposal *less* the asset's cost base	The asset's reduced cost base *less* the capital proceeds

Source: Australian Taxation Office (2021a: Online).

Subsection 116-20(1) governs the basic principles used to determine the value of the proceeds on date of disposal, and correspondingly subsection 110-25(2) details the principles governing the application and determination of the base cost of a capital asset subject to capital gains tax on acquisition. Consequently, in the case of cryptocurrencies, the value attributed to the proceeds on disposal is the intrinsic monetary value ascribed to the cryptocurrency, whereas the base cost is determined as the monetary or market value of any item of property given in exchange on initial acquisition of the cryptocurrency being disposed of (Australian Tax Office, 2021a: Online).

Subsection 118-10(3) of the Income Tax Assessment Act, states that any capital gain made on the disposal of a "personal use asset" is disregarded, provided that the first element of the base cost is AUD10 000.00 or less. Capital losses incurred on the disposal of a personal use asset are disregarded in terms of subsection 108-20(1). Section 108-20(2)(a) of the Income Tax Assessment Act defines a "personal use asset" as a capital gains tax asset that is used or kept mainly for personal use, consumption, or enjoyment. The exemption threshold of AUD10 000.00 may open a gap in the ATO's tax collection regime on cryptocurrencies, as this would enable the false declaration and categorization of cryptocurrencies held as investment vehicles as personal use assets and consequently enjoying the exemption provided for under subsection 118-10(3). It was submitted that proving a false declaration and categorization of cryptocurrencies would be inherently difficult with high enforcement costs (Wicht, 2016: 58).

Tax Determination 2014/26 stated (at 4) that the determination of whether cryptocurrencies were acquired or kept mainly as a personal use asset depends on the particular facts and circumstances on a case-by-case basis, with consideration of the purpose of acquisition and the taxpayer's reason for disposal. Alternate factors influencing whether the acquisition, holding and disposal of cryptocurrencies are considered capital or revenue in nature are also influenced, based on the following factors.

- intention and scheme of profit making;
- length of time the cryptocurrencies are held; and
- whether the cryptocurrencies are held as an item of trading stock.

The factors referred to above are considered by the Court in determining whether the cryptocurrencies acquired or disposed of are held on capital or revenue account and consequently whether the cryptocurrencies are considered personal use assets in terms of subsection 118-10(3). The holding of cryptocurrencies as personal use assets has not been considered in South Africa.

5.6 FRINGE BENEFITS TAX ON CRYPTOCURRENCIES

The ATO held (at 1) in Tax Determination 2014/28 that where a valid salary sacrifice arrangement has been concluded between an employer and employee with the employee receiving cryptocurrencies as remuneration other than in Australian Dollars, the remuneration received by the employee is subject to the provisions of the Fringe Benefits Tax Act.

Fringe benefits tax is payable by an employer on certain benefits provided by employers to their employees, employees' family members, or other associates of the employee (Australian Taxation Office, 2020: Online). Benefits provided by an employer to an employee that are subject to the provisions of the Fringe Benefits Tax Act may be in addition to, or form part of the employee's existing salary package and other taxable benefits granted to an employee as part and parcel of their employment with their employers (Australian Taxation Office, 2020: Online).

Fringe benefits tax is a separate tax in relation to normal income tax, which is calculated on the taxable value of the fringe benefit provided to an employee by their employer (Australian Taxation Office, 2020: Online). Section 136(1) of the Fringe Benefits Tax Act defines the term "fringe benefits" to mean the following: "A benefit that is provided by an employer or associate of the employer, to an employee or an associate of the employee, in respect of the employment of the employee."

The fringe benefits tax liability that is due and payable would be the value of the taxable fringe benefit received by the taxpayer, multiplied by the stated fringe benefits tax rate, currently levied at 47% (Australian Taxation Office, 2022). The application of the fringe benefits rate is subject to the consideration whether the fringe benefits provided by the employer are subject to Goods and Services Tax credits, as this will see a higher gross-up rate being applied to the taxable fringe benefit under consideration, compared to items of goods or services which are not subject to the provision of the GST tax credits (Australian Taxation Office, 2022: Online). Below are two table extracts of the applicable gross-up rates currently applying to fringe benefits granted to employees, based on whether the items of goods or services transferred and enjoyed by the employees are considered as a taxable supply as defined in paragraph 9-A of section 9-5 to the GST Act.

Table 5.2: Type 1 – Higher Gross-Up Rate – Entitled to GST Tax Credits

FBT year	FBT rate	Type 1 gross-up rate
Ending 31 March 2019, 2020, 2021 2022 and 2023	47%	2.0802

Source: Australian Taxation Office (2022: Online)

Table 5.3: Type 2 – Lower Gross-Up Rate – Not Entitled to GST Tax Credits

FBT year	FBT rate	Type 2 gross-up rate
Ending 31 March 2019, 2020,2021 2022 and 2023	47%	1.8868

Source: Australian Taxation Office (2022: Online)

The Australian Taxation Office (2022: Online) explained that if the taxable fringe benefits provided by an employer to their employee exceed AUD 2 000.00 during the fringe benefit tax year the following needs to be reported to the ATO:

- the grossed-up taxable value of the fringe benefits on the employee's income statement or payment summary;
- for the corresponding income year; and
- the reportable fringe benefit is to be grossed-up by applying the lower gross-up rate.

For example, a taxable fringe benefit of AUD 2 001.00 has been granted by an employer to an employee. The minimum grossed-up value is calculated as follows: AUD 2 001.00 multiplied by 1.8868, totalling a taxable fringe benefit value of AUD 3 775.49, subject to fringe benefits tax at 47%, thus AUD 1 774.48 payable by the employer to the ATO.

In terms of Tax Determination 2014/28 (at 4) cryptocurrencies are considered as "non-cash benefits" as they are not classified as money but considered as property for tax purposes, which are excluded from the Pay-As-You-Go ("PAYG") provisions. The PAYG withholding rules place the onus and obligation on employers to collect tax due to the ATO on payments made to employees in settlement of their year-end tax obligations (Australian Taxation Office, 2021). Consequently, Tax Determination 2014/28 states (at 4) that the provision of cryptocurrencies by employers to their employees as part of a valid salary sacrifice in Australia will be subject to the Fringe Benefits Tax Act on the taxable value of the cryptocurrency fringe benefit provided to the employee as part of their employment.

5.7 SUMMARY OF THE AUSTRALIAN TAX TREATMENT OF CRYPTOCURRENCIES

Cryptocurrencies have been characterized as a commodity or an asset by the ATO. The tax implications and tax treatment by the ATO arising from the Australian crypto markets pertaining to cryptocurrency transactions are summarised below as follows:

- The Australian taxation laws do not recognise cryptocurrencies as money, or normal fiat currency, either as local Australian Dollars or foreign currency for the purposes of tax. Cryptocurrencies are considered by the ATO as property (commodity) other than currency as defined as it fails to ascribe to the definition of money or currency under the Income Tax Assessment and the Goods and Services Tax regime, Tax Ruling IT 2668 (2014: 2).
- Taxation Ruling IT 2668 considers cryptocurrency transactions to be barter transactions.
- The market value at the date of disposal of the cryptocurrency is the total proceeds received by the taxpayer in exchange for goods or services that would be included as part of the taxpayer's assessable income.
- Miners or agents of cryptocurrency should apply the normal trading stock rules to the acquisition and disposals of cryptocurrencies in terms of the Income Tax Assessment Act.
- Non-commercial loss provisions in terms of the Income Tax Assessment Act may apply to losses incurred by a crypto miner as part of their trade where the necessary requirements apply.

- Cryptocurrencies are characterized as property in terms of the Income Tax Assessment Act and therefore any gains or losses on disposal will trigger the provisions of capital gains tax in the hands of taxpayers holding the currency as a personal use asset.
- Any gain or loss on the disposal of cryptocurrency used in the furtherance of the taxpayer's enterprise will be considered ordinary income subject to the normal application of the Income Tax Assessment Act.

5.8 TAX PROPOSALS FOR SOUTH AFRICA

The tax laws and regulations in the Australian Income Tax Assessment Act and the South African Income Tax Act are similar. The following sections discuss proposals relating to the taxation of cryptocurrencies in South Africa.

5.8.1 The Australian and South African Approach

In relation to cryptocurrencies, the Australian government, together with the ATO, have been at the forefront of promulgating laws and regulations addressing the issue of possible tax evasion on the non-disclosure of cryptocurrency gains (and losses) from the perspectives of holding and speculating in cryptocurrencies (Reuters, 2021: Online).

Both countries will subject the acquisition and sale of cryptocurrencies to taxation in a similar manner. The ATO and the Australian National Treasury, however, have taken a more comprehensive approach in developing laws and regulations to address the issue of possible tax evasion through cryptocurrencies (Reuter 2021: Online). SARS issued only a brief public media release on 6 April 2018 which stated that "normal income tax rules" will apply to cryptocurrencies (SARS, 2018: Online), with no further guidelines as to how this will be achieved.

The ATO and SARS have both recognized crypto mining as a business venture and as a result satisfying the definition of trade in terms of section 1 of the Income Tax Act and the ATO's public media release on 30 March 2020. But unlike the ATO, which has provided specific guidelines governing the taxation of income and expenditure in the determinisation of crypto miners' assessable income for the period, SARS and the South African National Treasury have not done so and should consider providing specific guidance regarding the income tax consequences of cryptocurrency income and expenditure, similar to the guidance provided by the ATO.

The Australian Income Tax Assessment Act provides that a taxpayer, including taxpayers who actively conduct any form of cryptocurrency trading, must correctly account for their opening and closing stocks prior to the conclusion of their annual tax return for the financial year end. The South African Income Tax Act incorporates this disclosure requirement for trading stocks in general; however, no specific guidance has been issued by SARS and the South African National Treasury regarding cryptocurrencies, leaving taxpayers to correctly apply the provisions of section 22 of the Income Tax Act (SARS, 2018: Online). It is proposed that SARS and National Treasury should consider issuing further guidance clarifying the correct tax disclosures of trading stock comprising of cryptocurrencies.

Section 108-5(1) of the Income Tax Assessment Act defines the term “CGT asset” as “any kind of property; or a legal or equitable right that is not property”. Cryptocurrencies are therefore classified as capital gains tax assets for the purpose of section 108-5(1)(a) of the Australian Income Tax Assessment Act. The Eighth Schedule to the South African Income Tax Act defines an asset as follows:

> “asset” includes –
>
> (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

As crypto assets (including cryptocurrencies) are defined as “financial instruments” in section 1 of the Income Tax Act, they are assets for tax purposes.

Both the ATO and SARS regard cryptocurrencies as property in a form other than currency. Both countries recognise that the profitable resale of assets in general will be deemed a disposal event in the hands of the taxpayer for capital gains tax purposes. Section 104-10(1) of the Income Tax Assessment Act specifically considers the disposal of cryptocurrency to third parties as a capital gains tax event subject to its inclusion when determining the taxpayer’s assessable income for the relevant year of assessment. The Eighth Schedule to the South African Income Tax Act provides no specific guidance for cryptocurrency disposals.

SARS has failed to provide the necessary guidance on the differentiation between capital and revenue in relation to crypto assets. Issuing guidance regarding the correct tax treatment of cryptocurrencies held either on capital or revenue account, is recommended.

Both the ATO and the South African Income Tax Act have specific and similar ring-fencing provisions for cryptocurrency losses.

The Seventh Schedule to the South African Income Tax Act, like the Australian Fringe Benefits Tax Act, governs fringe benefits granted to employees by virtue of their employment. A separate Australian Fringe Benefits Tax Act applies to all salary sacrifices in the form of cryptocurrencies received in exchange as part of a taxpayer's salary. The value of the cryptocurrency in the form of a salary sacrifice is subject to fringe benefits tax and the tax is payable by the employer. The Seventh Schedule to the Income Tax Act provides that all fringe benefits received by an employee by virtue of an employer-employee relationship are considered taxable, with the taxes accounted for in terms of the taxpayer's monthly Pay-As-You-Earn withholding tax, withheld by the taxpayer's employer, which is due and payable to SARS by the seventh day following the month in which it was withheld.

5.8.2 Recommendations for the Issue of Guidelines in South Africa

Clear, and concise guidance remains to be issued by SARS and National Treasury on the tax treatment of cryptocurrency transactions, apart from stating that "normal income tax rules" will apply to cryptocurrencies (SARS, 2018: Online). Details regarding matters that are recommended for inclusion in a Comprehensive Guide or an Interpretation Note, or possible amendments to specific sections in the Income Tax Act, are set out in Table 5.4 below.

Table 5.4: Recommendations for South African guidance, or a legislative amendment

DESCRIPTION AND RECOMMENDATION
Provide a general description of the nature of cryptocurrencies, crypto mining, and trading.
In relation to the definition of "gross income": • "Total amount" – clarify that an "amount" in the form of a cryptocurrency is to be converted to its Rand value; section 25D and paragraph 43 of the Eighth Schedule could be amended to permit the conversion at the average Rand value for the year of assessment. • "Received by or accrued to" – provide guidelines on when a cryptocurrency amount is received or accrues (the date of the transaction, or the date actually received). • "Capital or revenue" nature – provide guidance on the application of tests to determine the capital or revenue nature of cryptocurrency disposals, including the principles established in the case of *Nel v CIR*; possibly amend section 9D to extend the three-year period to include disposals of cryptocurrencies.
Trading stock – based on the definition of crypto assets (including cryptocurrencies) as "financial instruments", clarify that the value of cryptocurrencies held as trading stock cannot be written down when the value decreases.
"Proof-of-stake" mining – clarify whether the award of cryptocurrency for successfully solving the cryptographic function is gross income or interest on the investment of the "stake"; if interest, clarify whether the section 10(1)(i) exemption will apply.
"Proof-of-burn" mining – the same clarification is required as with "proof-of-stake" mining.
Barter transaction – confirm that the purchase or disposal of goods or services using cryptocurrencies constitutes a barter transaction, and the determination of the value of the goods and services acquired or disposed of.
Carrying on a trade – confirm that crypto mining and crypto dealing constitute the carrying on of a trade.
Capital *versus* revenue expenditure – clarify the capital or revenue nature of expenditure comprising a "stake" in proof-of-stake mining and "burnt" cryptocurrency coins (either acquiring an income-earning structure, or an operating expense).
"Home office" expenses – explain the circumstances under which crypto miners can deduct home office expenses and the manner of apportionment.
Wear-and-tear and depreciation allowances – explain the application of allowances for wear and tear on fixed asset expenditure by crypto miners (section 11(e) for computer equipment and software, and section 13*quin* for fixed property).
"Proof-of-burn" depreciation allowance – as the value of "burnt" cryptocurrency coins reduces over time, clarify whether and which depreciation allowances would apply to the coins.
Capital gains tax – explain the capital gains tax consequences for investors in cryptocurrencies.
Employment benefits – explain the application of the Seventh Schedule to the Act to benefits granted to employees in the form of cryptocurrencies.

Source: Own formulation

5.9 CONCLUSION

This chapter has briefly discussed the income tax consequences for cryptocurrencies in Australia. The Australian tax treatment is then compared with the South African income tax treatment. The provisions dealing with certain aspects of the taxation of cryptocurrencies in Australia are, however, specifically set out, and although the provisions of the South African Income Tax Act would apply in a similar fashion, the interpretation of the provisions is left to taxpayers.

In addition to providing specific guidance on issues relating to cryptocurrencies similar to the guidance provided by the ATO, Table 5.4 above sets out the information recommended to be included in a Comprehensive Guide or an Interpretation Note to be issued by SARS, together with amendments to certain sections of the Income Tax Act. These recommendations cover the application in relation to cryptocurrency transactions of “gross income”, trading stock provisions, the “general deduction formula”, capital allowances, capital gains tax, and employment benefits. The provision of clear and detailed guidance on the taxation of cryptocurrency transactions will also act as a counter-measure against possible tax evasion through the use of cryptocurrencies.

Further development of the tax legislation and ultimately the characterization of cryptocurrencies remains a key area of focus for the ATO and the Australian Government in order to find a firm structured approach to address the constantly changing nature of cryptocurrencies. This should also be a focus area for the South African Revenue Service.

In the following concluding chapter, the research findings will be summarised in relation to the goals of the research.

CHAPTER 6: CONCLUSION

6.1 INTRODUCTION

The first chapter of this thesis described the broad context of the research, including definitions of cryptocurrencies, block chains and crypto "mining". It indicated the uncertainties for taxing authorities created by cryptocurrencies. The chapter then proceeded to discuss the response of SARS. In the media release issued by SARS on 6 April 2018 (SARS, 2018: Online), it was stated that: "The South African Revenue Service will continue to apply normal income tax rules to cryptocurrencies" based on "an existing tax framework", and that cryptocurrencies are regarded as "assets of an intangible nature". The definition of "financial instruments" in section 1 of the Income Tax Act was duly amended to include crypto assets (which include cryptocurrencies) in the definition. Only one further amendment was made to the Income Tax Act – section 20A, dealing with the ring-fencing of assessed losses was amended to include "the acquisition or disposal of any crypto asset" in the list of "suspect trades" (section 20A(2)(b)(ix)). The decision to have regard to the Australian approach to the taxation of cryptocurrencies was briefly motivated, and finally the problematic income tax issues relating to cryptocurrencies were listed. The research methodology was described as falling within the legal interpretivist paradigm, the methodology as doctrinal, and the method as qualitative data analysis.

In chapter 1, the aim of the research was therefore described as follows: to investigate the practical application of the manner in which cryptocurrencies and their mining could be subject to income tax. To achieve this aim, the following sub-goals were stated:

- describing the nature of cryptocurrencies and related crypto mining activities;
- discussing the practical application of provisions in the Income Tax Act in relation to mining, investing in, or trading cryptocurrencies;
- discussing the practical income tax implications of cryptocurrency transactions in Australian legislation; and
- making recommendations relating to the taxation of cryptocurrencies and the mining of these currencies.

6.2 RESEARCH FINDINGS

The research findings in relation to the goals of the research are discussed briefly below.

6.2.1 Cryptocurrencies and Crypto Mining

In addressing the first sub-goal of the research, chapter 2 described the nature of cryptocurrencies and related crypto mining activities, providing definitions of cryptocurrencies, blockchains and crypto mining, as well as describing the functioning of the system. For this purpose, the discussion included an explanation of the application of cryptography, and the manner in which cryptocurrency transactions are compounded and bound to blocks, linked in chains. The three generations of cryptocurrencies were described, including their increasing sophistication in the application of blockchain technology to enable "tokenisation" of assets and "smart contracts" (not dealt with in this thesis). The acquisition of cryptocurrencies through trade platforms and the use of "wallets" identified by public cryptographic keys and protected by private "keys", were briefly referred to. Finally, the potential use of cryptocurrencies for tax evasion and capital flight was identified.

6.2.2 "Gross Income", Income and Capital Gains Tax

Chapter 3 addressed the first aspect of the second goal of the research - discussing the practical application of provisions in the Income Tax Act in relation to income from mining, investing in, or trading cryptocurrencies. The provisions of the definition of "gross income" in section 1 of the Income Tax Act, together with case law in relation to undefined terminology in the "gross income" definition, were applied to investing in, trading of, and mining cryptocurrencies.

The first requirement for inclusion in "gross income" is "the total amount in cash or otherwise". Cryptocurrencies, as financial instruments, qualify as amounts in the form other than cash. The problem identified in chapter 3, in view of the extreme volatility of cryptocurrencies, was that of valuing the amount in Rand terms. The recommendation was made that section 25D of the Income Tax Act (and paragraph 43 of the Eighth Schedule in relation to capital amounts) could be amended to provide for the average value for the year of assessment to be applied in converting cryptocurrency amounts to their Rand value.

The second element of "gross income" discussed in the chapter was "received by or accrued to". Because of the untraceable nature of cryptocurrencies, the time of receipt or accrual could be manipulated in order to disclose the receipt only when the Rand value is at its lowest (or not disclose it at all). Furthermore, cryptocurrency amounts are possibly only included in "gross income" when they are received and not when the transaction is entered into, and thus the normal principles may not be applied.

The capital or revenue nature of a cryptocurrency amount – the third element of the definition – proved to be equally problematic in relation to the question of speculating or investing in cryptocurrencies. As was the case in *CIR v Nel*, the Commissioner for SARS could contend that, as the "investment" in cryptocurrencies would produce no return, other than by a sale, the currency could not be held as an investment, but for speculative purposes. The recommendation was made that section 9C of the Income Tax Act could be amended to provide that cryptocurrencies held for three years or more would be deemed to be of a capital nature, as is the case with equity shares.

Three further problems were discussed. "Proof-of-stake" and "proof-of-burn" awards made to successful crypto miners could be regarded as interest on the "stake" provided by the miner or the "coins burnt" by the miner for the right to mine and entitled to the section 10(1)(i) interest exemption, or regarded as trading income, or simply a non-taxable return of capital. Crypto "farming", where multiple miners compete to solve the cryptographic function and share the costs and the awards, would be treated as a partnership, with crypto awards shared in terms of the partnership profit-sharing agreement. The final problem relates to accounting for trading stock of cryptocurrencies, where the value of cryptocurrencies included in closing stock, as financial instruments, cannot be written down when their value decreases.

Finally, as financial instruments, cryptocurrencies are assets for the purposes of capital gains tax and the provisions of the Eighth Schedule to the Income Tax Act would apply.

6.2.3 Deductions and Allowances

In addressing the second aspect of the second goal of the research, chapter 4 analysed the application of provisions of the preamble to section 11, section 11(a) and section 23(g) of the Income Tax Act (the "general deduction formula"), together with case law, in relation to cryptocurrencies. The preamble to section 11 required the carrying on of a trade, and crypto mining and crypto speculation would satisfy the definition of "trade" in section 1 of the Act, and therefore the requirement of carrying on a trade. With regard to the first element of the "general deduction formula" – expenditure and losses – it was held in *Joffe v CIR*, that there was little to distinguish between losses and expenses, and clearly the expenditure and losses incurred by crypto traders and miners satisfied this element of the "general deduction formula". For expenditure or losses to "actually be incurred" by crypto miners and speculators (the next element of the formula), they would need to represent an unconditional legal obligation to pay, as established in *Edgars Stores v CIR.* The problem was identified, however, that unlike shares, the purchase price of cryptocurrency is determined on the date it is received and not the date it is incurred. Thus, the "normal" principles applying to the incurral of an expense may not apply.

The next element of the formula is that expenditure and losses must be incurred "in the production of income". In *PE Electric Tramway v CIR* it was held that for expenditure to qualify as a deduction, the expenditure must satisfy two questions: how closely linked the expenditure incurred was to the business operations of the taxpayer; and whether the expenditure incurred was an "inevitable concomitant" of the income producing activities. In the case of crypto mining, the incurring of certain expenditure, such as the cost of electricity and other non-capital expenditure, is expenditure actually incurred in the production of income, as the expenditure is used to carry on the mining process in order to produce income in the form of cryptocurrencies. Expenditure incurred in the mining process is closely connected to the crypto mining operations and the incurring of running expenses are an inevitable concomitant of the income producing activities associated with crypto mining. The expenditure incurred to purchase cryptocurrencies by crypto speculators, together with other related expenditure, would also be incurred "in the production of income".

In satisfying the next element of the formula – not of a capital nature – it was held in *CIR v George Forest Timber Co* and *New State Areas v CIR* that expenditure incurred in the acquisition of fixed capital is capital in nature, whereas the expenditure incurred to acquire floating capital is revenue in nature, and expenditure incurred to acquire a source of profit is capital in nature, while expenditure incurred to work a profit stream is revenue in nature; expenditure incurred to acquire or expand the income earning structure is capital, while income incurred in utilising the capital structure is revenue in nature. The acquisition of computer equipment and programs used in the mining process constitutes the acquisition of fixed capital – the income-earning structure – and the expenditure incurred in running the mining venture is floating capital – the income-earning operations.

The negative test in section 23(g) of the Income Tax Act provides that the deduction of expenditure will be disallowed to extent that such expenditure was not laid out for the purposes of carrying on a trade. This would require the apportionment of expenditure incurred for trade and non-trade purposes, apportioned on a reasonable basis. Expenditure relating to the use of a computer for both the purpose of crypto mining and for private purposes, would need to be apportioned on a time basis. Although prohibited by section 23(b) as private expenses, crypto miners may be able to deduct a percentage of expenses in respect of part of their private homes used for mining purposes, probably apportioned on the basis of the floor area of the home.

Where expenditure is of a capital nature, the provisions of the Eighth Schedule to the Income Tax Act would apply to establish the capital gain or loss, the taxable gain being included in income in terms of section 26A of the Income Tax Act. The provisions of paragraph 42 of the Eighth Schedule would apply to the short-term disposal and acquisition of cryptocurrencies disposed of at a loss (referred to as a "wash sale" in America).

As is the case with any taxpayer carrying on a trade, crypto miners and crypto traders incurring an assessed loss, would be entitled to deduct this assessed loss from income in the following years of assessment (section 20 of the Income Tax Act). Section 20A(2)(b)(ix) includes the acquisitions and disposals of crypto assets as a listed suspect trade and any losses suffered by a crypto miner or crypto trader as a secondary trade, where the taxable income from the primary trade exceeds the amount subject to the maximum marginal rate of tax, are only available for set off against crypto profits derived in a future year of assessment.

The cost of computer equipment, computer software and other capital costs incurred on movable assets used in cryptocurrency mining would qualify for an allowance in terms of section 11(e) of the Income Tax Act, and 13*quin* of the Income Tax Act would provide an allowance on fixed property occupied for the purposes of trade. As cryptocurrency "coins burnt" to acquire the right to mine are analogous to manufacturing "plant", the value of the coins burnt may qualify for the section 12C allowance.

The trading stock provisions in section 22 of the Income Tax Act would apply to crypto currencies held for speculation purposes, with opening and closing stock being accounted for at cost, and no write-down below cost being permitted, as cryptocurrencies are defined as financial instruments (section 22(8)(b) of the Income Tax Act). Crypto miners carrying on their trade as crypto "farmers" would be subject to the partnership provisions of section 24H of the Income Tax Act, and each miner would be entitled to deduct a share of partnership expenses according to the profit-sharing ratio provided for in the agreement.

6.2.4 Australian Income Tax Provisions and Recommendations for South Africa

Chapter 5 briefly discussed the Australian legislation and guidance issued by the ATO, in bringing cryptocurrencies into the tax net. All gains and losses derived through the active trading and mining of cryptocurrencies are considered to form part of the taxpayer's normal assessable income, with the corresponding deductions granted to taxpayers on expenditure actually incurred in the normal course of business, at an arm's length value on the date of trade. The ATO recognises cryptocurrencies as a form of "property" meeting the requirements of a capital gains tax asset in terms of the Income Tax Assessment Act, and all cryptocurrency transactions have the same defining features and tax implications associated with those of a barter transaction. Because the Australian legislative provisions define cryptocurrencies as property for the purposes of capital gains tax, they are therefore not classified as "money" or "currency", whether local or foreign currency. Salary sacrifices in the form of cryptocurrencies are dealt with in a separate Act dealing with employment benefits.

Although the Australian and South African legislation applying to cryptocurrencies is similar, the ATO provides clarity on how these provisions apply to cryptocurrencies. Based on the approach of the ATO, together with problems identified in the discussions in chapters 3 and 4, proposals were made regarding the tax treatment of cryptocurrency transactions.

These proposals are, firstly, that SARS should issue a Comprehensive Guide or an Interpretation Note dealing with the income tax consequences of crypto mining and dealing or investing in cryptocurrencies. In the Guide, provide a general description of cryptocurrencies, crypto mining and blockchain. Detailed guidelines should be provided on:

- the application of "gross income" to cryptocurrency transactions, including the valuation of cryptocurrencies, when amounts in the form of cryptocurrencies accrue to the taxpayer, and the capital or revenue nature of cryptocurrency amounts;
- the application of the "general deduction formula" to cryptocurrencies, including when an expense in the form of a cryptocurrency is actually incurred, and on the capital or revenue nature of expenditure;
- cryptocurrencies held as trading stock and the prohibition of a write down where the value decreases;
- the wear-and-tear and depreciation allowances applying to movable and fixed assets used in the crypto mining process;
- the deduction of home-office expenses;
- the capital gains tax implications of cryptocurrencies;
- cryptocurrencies and employment benefits;
- guidance on matters such as the tax consequences of awards in relation to proof-of-stake and proof-of-burn mining, and depreciation of "coins" burnt.

In addition, a recommendation was made that section 25D of the Income Tax Act and paragraph 43 of the Eighth Schedule could be amended to provide for the average value of cryptocurrencies for the year of assessment to be used to convert cryptocurrencies to their Rand value. A further recommendation was made that an amendment could be made to section 9C to provide that cryptocurrencies, like equity shares, held for three years or more are deemed to be of a capital nature.

6.3 LIMITATIONS OF SCOPE

As this was a thesis of limited scope, certain aspects of cryptocurrencies were not discussed. The following areas were specifically excluded in terms of the South African legislation as well as the equivalent legislation in Australia.

- the Estate Duty Act, No. 45 of 1955;
- the Value-Added Tax Act, No. 89 of 1991; and
- Sections 54 to 64 of the Income Tax Act: Levy of donations tax.

This thesis only discussed the income tax consequences of cryptocurrency transactions for South African resident individuals, and not the consequences for companies or non-residents. The tax consequences relating to crypto exchanges (agents) were also not dealt with.

6.4 SUGGESTION FOR FUTURE RESEARCH

A suggestion for future research could include the tax implications of Value-Added Tax ("VAT"), in terms of the Value-Added Tax Act, No. 89 of 1991, for both the VAT vender and the third-party acquirer of cryptocurrencies. The research could compare this with the tax implications that apply to a crypto miner and crypto trading agent in terms of the Australian Goods and Services Tax Act, No. 55 of 1999.

6.5 CONCLUDING COMMENTS

In the introduction to this chapter the media release issued by SARS on 6 April 2018 (SARS, 2018: Online), was referred to where it was stated that: "The South African Revenue Service will continue to apply normal income tax rules to cryptocurrencies" based on "an existing tax framework", and that cryptocurrencies are regarded as "assets of an intangible nature". This research has demonstrated that although the normal tax consequences can, to a large extent, be applied to cryptocurrency transactions, detailed guidelines are required to make it possible to interpret these normal tax consequences for the purpose of their application in practice.

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