

**The applicability of section 24I of the Income Tax Act No. 58 of 1962 to bitcoin
gains and losses**

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December 2018

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ABSTRACT

Section 24I of the Income Tax Act No. 58 of 1962 (the Act) governs the normal tax treatment of foreign currency gains and losses. In terms of section 24I(3) of the Act, both realised and unrealised gains and losses arising from units of foreign currency held are taken into account in determining taxable income. 'Foreign currency' is defined in section 24I(1) of the Act as any currency other than local currency. The term 'currency' is not defined in the Act. If the term 'currency' is interpreted as including cryptocurrency, section 24I of the Act could also apply to bitcoin gains and losses. National Treasury has proposed, in the Draft Taxation Laws Amendment Bill 2018, to amend the definition of 'financial instrument' in section 1(1) of the Act to include any cryptocurrency. The proposed amendment is in line with the view of the South African Revenue Service that bitcoin should be classified as an asset and not as a currency for normal tax purposes. This classification would preclude the application of section 24I of the Act to bitcoin gains and losses. Bitcoin gains and losses may in that case be subject to the provisions which govern the normal tax treatment of gains and losses arising from trading stock and capital assets.

Prior to the introduction of section 24I of the Act, authors lamented the complexity of the normal tax treatment of foreign currency gains and losses. Accordingly, section 24I of the Act was introduced with the objective of aligning the normal tax treatment of foreign exchange gains and losses to the principles of fairness, simplicity, economic reality, current tax principles and generally accepted accounting practice. The objectives of a provision may inform its interpretation in terms of a purposive approach to interpretation. Thus, this study set out to determine whether a purposive approach to the interpretation of section 24I of the Act might indicate that the section could be applicable to bitcoin gains and losses. This is in contrast to previous studies, which employed comparative analyses to determine whether bitcoin should be classified as an asset or as a currency for normal tax purposes.

A qualitative research approach was followed, which took the form of a desktop literature review. Secondary data were collected and analysed to determine whether the application of section 24I of the Act to bitcoin gains and losses could further the objectives of the provision. The study found that the application of section 24I of the Act to bitcoin gains and losses may lead to the furtherance of the current tax principles

of neutrality and simplicity and may align the normal tax treatment of bitcoin gains and losses to generally accepted accounting practice. Therefore, a purposive approach to the interpretation of section 24I of the Act might indicate that the section could be applicable to bitcoin gains and losses.

The findings of this study suggest that the current normal tax treatment of bitcoin gains and losses, as well as the amendments proposed in the Draft Taxation Laws Amendment Bill 2018, may undermine current tax principles. The study further revealed that the current normal tax treatment may lead to a tax anomaly. Based on these findings, it is recommended that National Treasury reconsider its position on bitcoin and other cryptocurrencies.

OPSOMMING

Artikel 24I van die Inkomstebelastingwet No. 58 van 1962 (die Wet) reël die normale belastinghantering van buitelandse valutawinste en -verliese. In terme van artikel 24I(3) van die Wet word beide gerealiseerde en ongerealiseerde winste en verliese ten opsigte van buitelandse valuta-eenhede in ag geneem by die bepaling van belasbare inkomste. 'Buitelandse valuta' word in artikel 24I(1) van die wet omskryf as enige geldeenheid wat nie 'n plaaslike geldeenheid is nie. Die term 'geldeenheid' word nie in die Wet omskryf nie. Indien die interpretasie van die term geldeenheid daarop dui dat dit kriptogeldeenhede insluit, sou artikel 24I van die Wet ook op bitcoinwinste en -verliese van toepassing kon wees. Nasionale Tesourie stel in die Konsepwysigingswetsontwerp op Belastingwette van 2018 voor dat die definisie van 'finansiële instrument' in artikel 1(1) van die Wet gewysig word om enige kriptogeldeenheid in te sluit. Die voorgestelde wysiging is in lyn met die siening van die Suid-Afrikaanse Inkomstediens dat bitcoin as 'n bate eerder as 'n geldeenheid geklassifiseer moet word vir normale belastingdoeleindes. Hierdie klassifikasie sou die toepassing van artikel 24I van die Wet op bitcoinwinste en -verliese verhoed. Bitcoinwinste en -verliese mag in daardie geval aan die wetsbepalings wat die normale belastinghantering van winste en verliese ten opsigte van handelsvoorraad en kapitale bates reël, onderwerp word.

Voor die inwerkingtrede van artikel 24I van die Wet, was skrywers krities van die kompleksiteit van die normale belastinghantering van buitelandse valutawinste en -verliese. Dienooreenkomstig is artikel 24I van die Wet bekendgestel met die doel om die normale belastinghantering van buitelandse valutawinste en -verliese met die beginsels van regverdigheid, eenvoudigheid, ekonomiese realiteit, huidige belastingbeginsels en algemeen aanvaarde rekeningkundige praktyk te belyn. Die doelwitte van 'n voorsiening kan die uitleg daarvan in terme van 'n doeldienende benadering tot uitleg voorlig. Hierdie studie is dus onderneem om vas te stel of 'n doeldienende benadering tot die uitleg van artikel 24I van die Wet mag aandui dat die artikel op bitcoinwinste en -verliese van toepassing kan wees. Dit stel die studie in kontras met vorige studies wat vergelykende analises onderneem het om te bepaal of bitcoin as 'n bate of as 'n geldeenheid geklassifiseer moet word vir normale belastingdoeleindes.

'n Kwalitatiewe navorsingsbenadering is gevolg, in die vorm van 'n lessenaar literatuurstudie. Sekondêre data is ingesamel en geanaliseer om te bepaal of die toepassing van artikel 24I van die Wet op bitcoinwinste en -verliese die doelwitte van die artikel sou kon bevorder. Die studie het gevind dat die toepassing van artikel 24I op bitcoinwinste en -verliese die huidige belastingbeginsels van neutraliteit en eenvoudigheid mag bevorder, en die normale belastinghantering van bitcoinwinste en -verliese met algemeen aanvaarde rekeningkundige praktyk mag belyn. 'n Doeldienende benadering tot die uitleg van artikel 24I van die Wet mag dus daarop dui dat die artikel van toepassing kan wees op bitcoinwinste en -verliese.

Die bevindinge van hierdie studie dui daarop dat die huidige normale belastinghantering van bitcoinwinste en -verliese, sowel as die voorgestelde wysigings in die Konsepwysigingswetsontwerp op Belastingwette van 2018, huidige belastingbeginsels mag ondermyn. Die studie het verder getoon dat die huidige normale belastinghantering van bitcoinwinste en -verliese tot 'n belastinganomalie kan lei. Gebaseer op hierdie bevindinge, word daar aanbeveel dat Nasionale Tesourie sy posisie op bitcoin en ander kriptogeldeenhede heroorweeg.

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LIST OF ABBREVIATIONS

ABBREVIATION	DESCRIPTION
CGT	capital gains tax
CJEU	Court of Justice of the European Union
IAS	International Accounting Standard
IASB	International Accounting Standards Board
IFRS	International Financial Reporting Standard
IFRSs	International Financial Reporting Standards
SARS	South African Revenue Service
SATC	South African Tax Cases Reports
OECD	Organisation for Economic Cooperation and Development
VAT	value-added tax

LIST OF REFERENCED INTERNATIONAL ACCOUNTING STANDARDS

STANDARD	DESCRIPTION
Conceptual Framework	Conceptual Framework for Financial Reporting
IAS 2	Inventories
IAS 8	Accounting Policies, Changes in Accounting Estimates and Errors
IAS 16	Property, Plant and Equipment
IAS 21	The Effect of Changes in Foreign Exchange Rates
IAS 32	Financial Instruments: Presentation
IAS 38	Intangible Assets
IAS 40	Investment Property
IFRS 13	Fair value measurement

GLOSSARY

TERM	DESCRIPTION
ECT Act	Electronic Communications and Transactions Act No. 25 of 2002
Eighth Schedule	Eighth Schedule to the Income Tax Act No. 58 of 1962
Explanatory Memorandum	Explanatory Memorandum on the Income Tax Bill, 1993
green paper	Green Paper on Electronic Commerce for South Africa
Model Law	United Nations Model Law on Electronic Commerce
the Act	the Income Tax Act No. 58 of 1962
VAT Directive	European Union VAT Directive (Council Directive 2006/112/EC)

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INTRODUCTION

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CHAPTER 1 INTRODUCTION

1.1 Background

Section 24I of the Income Tax Act No. 58 of 1962 (South Africa, 1962) (the Act) governs the normal tax treatment of foreign currency gains and losses. Section 24I(3) of the Act provides that any exchange difference in respect of an exchange item held by, inter alia, a company or a natural person holding exchange items as trading stock must be included in the determination of that person's taxable income (De Koker & Williams, 2018:par.17.8A). This inclusion is regardless of whether the gain or loss is of a capital nature, and irrespective of whether the gain or loss is realised or unrealised (De Koker & Williams, 2018:par.17.8A).

Subjecting unrealised gains to normal tax is a departure from the concept of accrual (De Jager, Parsons & Roeleveld, 2012:167). The accrual concept is a core element of the 'gross income' definition, and foundational to the South African income tax system (De Jager *et al.*, 2012:167; Van Zyl, 2015:98). Accrued amounts may form part of the taxpayer's gross income in terms of the 'gross income' definition in section 1(1) of the Act. An amount accrues to a taxpayer when the taxpayer becomes unconditionally entitled to receive such an amount (Stiglingh, Koekemoer, Van Heerden, Wilcocks, De Swardt & Van der Swan, 2018:36), suggesting that such amounts have to be realised gains. The legislature's intentional departure from the accrual principle in respect of section 24I of the Act is explained in the *Explanatory Memorandum on the Income Tax Bill, 1993 (Explanatory Memorandum)*. According to the *Explanatory Memorandum* (National Treasury (South Africa), 1993:3), section 24I of the Act has the purpose of

treating, for tax purposes, all gains made and losses incurred in respect of foreign exchange transactions in a manner which takes into account as far as possible the principles of fairness, simplicity, economic reality, current tax principles and generally accepted accounting practice.

The legislature's departure from the accrual principle was originally based on the premise that foreign exchange gains and losses represent finance charges (National Treasury (South Africa), 1993:3). This premise appears reasonable when considering

that the list of exchange items governed by the original section 24I of the Act, as introduced in 1993, encompassed only foreign debt, forward exchange contracts and foreign currency option contracts (National Treasury (South Africa), 1993:3), which may all represent financial rights and obligations between counterparties. Uncertainty existed as to whether cash balances in foreign currency fell within the ambit of section 24I of the Act (National Treasury (South Africa), 1994:4). In what was viewed as a minor amendment at the time (de Mare, 1995:6), the definition of exchange item was extended in 1994 to include units of currency held (National Treasury (South Africa), 1994:4).

When the legislature amended section 24I of the Act to include a unit of currency held, the phenomenon of virtual currencies could hardly have been foreseen. According to the Financial Action Task Force (2014:4),

virtual currency is a digital representation of value that can be digitally traded and functions as (1) a medium of exchange; and/or (2) a unit of account; and/or (3) a store of value, but does not have legal tender status.

The Financial Action Task Force (2014:5) distinguishes between centralised and decentralised virtual currencies, and convertible and non-convertible virtual currencies. Centralised virtual currencies are administered by a single authority, while decentralised virtual currencies have no central administering authority and are protected by cryptography instead (Financial Action Task Force, 2014:5). Convertible virtual currencies can be exchanged for conventional currency (Financial Action Task Force, 2014:4). The term 'cryptocurrency' refers to a virtual currency that is both decentralised and convertible (Financial Action Task Force, 2014:5).

The first cryptocurrency to gain traction was bitcoin, which was launched in 2008 (Carrick, 2016:2321). The proliferation of electronic commerce in the twenty first century led to a high demand for efficient online payment systems. Where consumers initially paid for electronic commerce transactions using established credit card systems, alternative payment methods such as e-Money, money transfers and direct debit systems soon emerged (Meiklejohn, Pomarole, Jordan, Levchenko, McCoy, Voelker & Savage, 2013:127). These online payment methods all occur via third-party intermediaries. This gives rise to several drawbacks for online payments compared to

physical cash payments, including the reversibility of transactions, intermediary transaction fees, and a lack of anonymity (Tu & Meredith, 2015:282-284). Bitcoin was created as an alternative method of online payment and may be used to circumvent these drawbacks (Nakamoto, 2008:1-2).

Bitcoin is a peer-to-peer electronic payment system which enables the parties to a transaction to transfer bitcoin, a virtual currency, directly from one to another without using a financial institution as a third-party intermediary (Nakamoto, 2008:1-2). Accordingly, the primary purpose of bitcoin is to act as a substitute for legal tender (Parsons, 2014:5). Bitcoin can be regarded as “cash for the internet” (Nieman, 2015:1986). It has many of the advantages of cash transactions, such as instant settlement (European Banking Authority, 2014:17; Tu & Meredith, 2015:282-284), low transaction costs (Böhme, Christin, Edelman & Moore, 2016:224; European Banking Authority, 2014:16; Lopez, 2015:120; Tu & Meredith, 2015:282-284), and the protection of personal information against fraud (European Banking Authority, 2014:19; Lopez, 2015:120; Tu & Meredith, 2015:282-284). It is expected that bitcoin and other cryptocurrencies will become more mainstream (Nieman, 2015:1999; Ram, Maroun & Garnett, 2016:2), given the benefits of transacting with cryptocurrency and the increasing number of cryptocurrencies in circulation.

The term ‘altcoins’ (derived from ‘alternative coin’) refers to all cryptocurrencies which are not bitcoin (Investopedia, 2018). As at 31 August 2018, the global market capitalisation of bitcoin was approximately \$120 200 000 000, which represents more than five times the market capitalisation of the altcoin with the largest market capitalisation (Coinspeaker, 2018). Bitcoin is the most popular cryptocurrency payment option in South Africa (McKane, 2017). PayFast, a South African payment gateway, added bitcoin as a payment option to its payment platform in July 2014, enabling bitcoin access to more than 30 000 South African online merchants (Southurst, 2014). Therefore, although there are numerous cryptocurrencies, bitcoin will be the focus of this study.

Despite having many similarities to cash, bitcoin is not issued by the central bank of a government, as is the case with conventional currencies. Instead, new units of bitcoin come into circulation through the process of bitcoin mining (Grinberg, 2012:163). This is the process through which new units of bitcoin are awarded to the bitcoin miner in

exchange for computationally verifying bitcoin transactions in a public log of all previous bitcoin transactions, known as the blockchain (Ciaian et al., 2016b:1801, Nieman, 2015:1987). This verification process is performed using bitcoin mining software, which runs on a computer (Ciaian et al., 2016b:1801). The supply of bitcoin is inherently limited through the design of this process. Taxpayers usually engage in bitcoin mining with the intention of earning an income (Parsons, 2014:8).

The process of bitcoin mining, as described above, is one of three ways by which taxpayers may generally acquire bitcoin. A second way in which a taxpayer may acquire bitcoin, is by purchasing it with conventional currency, for example on a bitcoin exchange (Wicht, 2016:21). The taxpayer may wish to purchase bitcoin to use it as a method of payment, or as a speculative or long-term investment (South African Reserve Bank, 2014:3; Tu & Meredith, 2015; Van Alstyne, 2014:32). The taxpayer may be charged transaction fees by bitcoin exchanges when purchasing bitcoin with conventional currency (Coelho, 2017:12). A third way in which bitcoin may be acquired is by accepting bitcoin in exchange for goods and services (Wicht, 2016:21), which may hold advantages such as low transaction fees, as discussed above.

Once bitcoin has been acquired, it is held in a bitcoin wallet until it is disposed of (Tu & Meredith, 2015:295). Bitcoin is mainly disposed of by selling it for conventional currency, for example on a bitcoin exchange, or by using bitcoin to purchase goods and services (Parsons, 2014:8-9). Changes in the price of bitcoin between the date of acquisition and the date of disposal, will lead to the realisation of a gain or loss by the taxpayer (Parsons, 2014:9). Unrealised gains and losses may also occur as a result of changes in the price of bitcoin during the period it is held and not disposed of by the taxpayer (Ram *et al.*, 2016).

South African authors agree that the gains and losses resulting from bitcoin price fluctuations (hereafter referred to as bitcoin gains and losses) should be subject to normal tax (Berger, 2016; Coelho, 2017; Parsons, 2014; Seforo, 2014; Wicht, 2016). The innovative characteristics and varied uses of bitcoin give rise to the question of how bitcoin gains and losses should be taxed (Akins, Chapman & Gordon, 2013:25-26). In particular, there are divergent perspectives on whether bitcoin should be taxed as an asset or as a currency (Berger, 2016:3; Isom, 2013:10). The normal tax treatment favoured by the majority of tax jurisdictions is to tax bitcoin as a conventional asset

(Bal, 2014a; Lambert, 2016:115). The alternative is to regard bitcoin as a currency, in which case bitcoin gains and losses may fall within the ambit of section 24I of the Act (Seforo, 2014:45).

The term 'currency' is not defined in the Act. Seforo (2014:45) suggested that bitcoin does qualify as a currency for normal tax purposes, based on its use as a medium of exchange, and should, therefore, fall within the ambit of section 24I of the Act. Conversely, Berger (2016:74) submitted that bitcoin should be classified as an asset for South African normal tax purposes. Bitcoin is not regarded as a currency by the South African Revenue Service (SARS) (2018), as it is "neither official South African tender nor widely used and accepted in South Africa as a medium of payment or exchange".

The SARS (2018) initially indicated that it regarded cryptocurrency as an intangible asset. However, it has subsequently been proposed in the Draft Taxation Laws Amendment Bill 2018 that the definition of 'financial instrument' in section 1(1) of the Act be amended to include any cryptocurrency (National Treasury (South Africa), 2018:3). Financial instruments are not excluded from the definition of 'asset' in the Eighth Schedule to the Act, which specifically excludes currency. Consequently, the proposed amendment to the definition of 'financial instrument' in section 1(1) of the Act would give effect to the classification of bitcoin as an asset, as opposed to a currency, for normal tax purposes.

The existing literature focuses on whether bitcoin should be classified as an asset or as a currency for normal tax purposes. It does not explore whether bitcoin should fall within the ambit of section 24I of the Act based on the purpose of the section.

Determining the ambit of fiscal legislation requires consideration of its purpose (Goldswain, 2008:116). This constitutes a purposive approach to the interpretation of legislation (Goldswain, 2008:117). In applying this purposive approach in a fiscal environment, the so-called canons of taxation, as advocated by Adam Smith in 1776, must be considered (Stack, Stiglingh & Koekemoer, 2015:151). The canons of taxation are the commonly accepted principles of a good tax system and can be summarised as equity, certainty, convenience and efficiency (Smith, 1776). According to Stack *et al.* (2015:152), "these 'Canons of Taxation' were restated in 1998 by the Organisation

for Economic Cooperation and Development (the OECD) as applicable in the modern electronic age”.

In terms of the OECD *Electronic Commerce Taxation Framework Conditions*, the broad taxation principles are: neutrality, efficiency, certainty and simplicity, effectiveness and fairness, and flexibility (Organisation for Economic Cooperation and Development [OECD], 1998:4). Regarding neutrality, the *Electronic Commerce Taxation Framework Conditions* states that “taxpayers in similar situations carrying out similar transactions should be subject to similar levels of taxation” and that electronic commerce should “be put at neither an advantage nor a disadvantage in comparison with more conventional forms of commerce” (OECD, 1998:4).

The principle of neutrality may be undermined if the normal tax treatment of gains and losses incurred in respect of bitcoin, a cryptocurrency, differs from the normal tax treatment of gains and losses incurred in respect of foreign currencies. Consequently, a purposive approach to the interpretation of section 24I of the Act might indicate that the section could be applicable to bitcoin gains and losses.

1.2 Problem statement

The main research question identified was whether a purposive approach to the interpretation of section 24I of the Act might indicate that the section could be applicable to bitcoin gains and losses.

The purpose of section 24I of the Act includes, inter alia, taxing foreign exchange gains and losses in a manner which takes into account current tax principles (National Treasury (South Africa), 1993:3). The current tax principle of neutrality was identified as particularly relevant to the current study. Furthermore, section 24I of the Act had the object of aligning the normal tax treatment of foreign exchange gains and losses to generally accepted accounting practice, and to the principle of simplicity (National Treasury (South Africa), 1993:3).

Therefore, in determining whether section 24I of the Act should be applicable to bitcoin gains and losses, the following secondary research questions were posed:

- i. Does the current tax principle of neutrality, as included in the OECD *Electronic Commerce Taxation Framework Conditions*, require the application of section 24I of the Act to bitcoin gains and losses?
- ii. What would the normal tax treatment of bitcoin gains and losses be in terms of section 24I of the Act, and how would this differ from the alternative normal tax treatment if section 24I of the Act were not applicable to bitcoin gains and losses?
- iii. Would the application of section 24I of the Act to bitcoin gains and losses lead to an alignment between the normal tax treatment and generally accepted accounting treatment of bitcoin gains and losses?
- iv. Would the application of section 24I of the Act to bitcoin gains and losses enhance or reduce simplicity in the normal tax treatment of bitcoin gains and losses?

A preliminary literature review was carried out to summarise the existing literature addressing the research questions posed above.

1.3 Literature review

The literature review commences with a review of the academic literature on the applicability of section 24I of the Act to bitcoin gains and losses. Each of the four secondary research questions are subsequently briefly addressed with reference to the relevant academic literature and case law available.

1.3.1 The applicability of section 24I of the Act to bitcoin gains and losses

South African authors agree that bitcoin gains and losses should be subject to normal tax (Berger, 2016; Coelho, 2017; Parsons, 2014; Seforo, 2014; Wicht, 2016), but disagree on whether section 24I of the Act should be applicable to bitcoin gains and losses.

Section 24I of the Act is applicable, inter alia, to an amount of foreign currency which constitutes any unit of currency acquired and not disposed of. Foreign currency' is defined in section 24I(1) of the Act as "any currency which is not local currency". 'Local currency' is in turn defined in section 24I(1) of the Act, for a resident other than a headquarter company, as the currency of the Republic. Consequently, units of bitcoin

held may constitute foreign currency and be subject to the provisions of section 24I of the Act, if bitcoin is classified as a currency for the purposes of the Act (Berger, 2016:53; Seforo, 2014:45; Wicht, 2016:81).

The term 'currency' is not defined in the Act (Berger, 2016:4; Coelho, 2017:17; South African Revenue Service [SARS], 2018). The term 'currency' is defined in section 2(2)(ii) of the Value-Added Tax Act No. 89 of 1991 (South Africa, 1991), for the purposes of determining whether an activity is a financial service. This definition excludes currency held as an investment article. Section 24I of the Act may find application where an exchange item is held as an investment (van der Zwan, 2016:43). Therefore, the definition contained in the Value-Added Tax Act No. 89 of 1991 would be inappropriate in the context of section 24I of the Act, which is applicable irrespective of whether a unit of foreign currency is held as an investment.

Where a term is not defined in the Act, the word must be given its ordinary dictionary meaning, unless such a meaning would be contrary to the intention of the legislation (Clegg & Stretch, 2018:par.2.6). The Oxford English Dictionary (2018a) defines 'currency' as "that which is current as a medium of exchange; the circulating medium (whether coins or notes); the money of a country in actual use". This definition of 'currency' includes the term 'money'. The SARS' (2017:706) *Comprehensive Guide to Capital Gains Tax* (Issue 6) also indicates that the term 'currency' refers to "money in current circulation". However, there are no universally accepted definitions for the terms 'currency' and 'money' (Davidson & Block, 2015:312; Dwyer, 2015:1; Norton Rose Fulbright, 2015:10). This has led to a lack of consensus among authors as to whether bitcoin meets the ordinary definition of 'currency'.

On the one hand, Haupt (2018:669-670) asserted that bitcoin does constitute currency, but that bitcoin is not an exchange item for the purposes of section 24I of the Act. On the other hand, Seforo (2014:45) argued that the provisions of section 24I of the Act are applicable to bitcoin gains and losses, based on the view that bitcoin meets the ordinary definition of 'currency' as it is "something that is used as money". Wicht (2016:71) stated that bitcoin may be regarded as 'foreign currency' as defined in section 24I(1) of the Act, but concluded that a classification as either an asset or as a currency, depending on the intention of the taxpayer, would be the most appropriate (2016:92). Conversely, Berger (2016:53,58,66) contended that it is doubtful that bitcoin

will be regarded as ‘foreign currency’ as defined in section 24I(1) of the Act, as bitcoin is not widely accepted as a medium of exchange in South Africa and is not legal tender. However, Coelho (2017:20) observed that it is possible, although currently unlikely, for bitcoin to be regarded as ‘foreign currency’ as defined in section 24I(1) of the Act, but maintained that the prudent approach would be to leave bitcoin unclassified for normal tax purposes (2017:22).

A correspondence analysis examining the views of 40 tax experts revealed that bitcoin is seen as distinct from currency (Ram, 2018:231). The SARS (2018) shares the view that bitcoin is not currency for normal tax purposes, as it is “neither official South African tender nor widely used and accepted in South Africa as a medium of payment or exchange”. National Treasury (2018:3) has proposed that the definition of ‘financial instrument’ in section 1(1) of the Act be amended to include any cryptocurrency. This amendment would result in bitcoin constituting an asset for normal tax purposes, and would negate the application of section 24I of the Act to bitcoin gains and losses.

The existing research regarding the applicability of section 24I of the Act to bitcoin gains and losses has not taken into account the purpose of section 24I of the Act, nor the broad principles of taxation. The purpose of a provision is important when determining its applicability. This is evidenced by the shift by the South African judiciary from the “strict and literal” interpretation of statutes, to a more purposive approach (Goldswain, 2008:119). Such a purposive approach entails consideration not only of the purpose of a provision, but also of the broad principles of taxation as included by the OECD in the *Electronic Commerce Taxation Framework Conditions* (Stack *et al.*, 2015:151). The secondary research questions, which arise when considering a purposive interpretation of section 24I of the Act, are discussed next. One of the objectives of section 24I of the Act was to tax foreign exchange gains and losses in accordance with current tax principles.

1.3.2 The principle of neutrality in the normal tax treatment of bitcoin

The current tax principles included in the OECD *Electronic Commerce Taxation Framework Conditions* need to be considered when employing a purposive approach (Stack *et al.*, 2015:152). The principle of neutrality dictates that taxation should be

neutral between taxpayers carrying out similar transactions through conventional and electronic forms of commerce (OECD, 1998:4). Regarding neutrality, the *Electronic Commerce Taxation Framework Conditions* states that electronic commerce should “be put at neither an advantage nor a disadvantage in comparison with more conventional forms of commerce” (OECD, 1998:4).

One way in which neutrality can be achieved, is through the functional equivalence approach (Bardopoulos, 2012:61). Such an approach ensures non-discrimination by applying the law equally to new technologies which have the same function or effect as their conventional counterparts (Bardopoulos, 2012:62; Craig, 2016:612). The tax principles included in the *Electronic Commerce Taxation Framework Conditions* evidence that the functional equivalence approach has been “extended to the imposition of tax on electronic commerce” (Bardopoulos, 2012:62).

Therefore, if bitcoin has the same function or effect as foreign currency, a purposive approach to the interpretation of section 24I of the Act may bring bitcoin within its ambit. In considering whether bitcoin can be regarded as a currency, most authors reflect on its potential to fulfil the three economic functions of money (see, for instance, Blundell-Wignall, 2014:7; Mandjee, 2014:13; McCallum, 2015:348; Van Alstyne, 2014:30; Yermack, 2013:2;). Economic theory states that money functions as a medium of exchange, store of value and unit of account (Ali, Barrdear, Clews & Southgate, 2014:1).

The Court of Justice of the European Union (CJEU) considered the function of bitcoin as a medium of exchange in its ruling in *Skatteverket v David Hedqvist* ECJ C-265/14 (*David Hedqvist* case). In the *David Hedqvist* case, the CJEU relied on the principle of fiscal neutrality in ruling that the exchange of bitcoin for conventional currency will be afforded the same value-added tax (VAT) exemptions granted for the exchange of currency, bank notes and coins used as legal tender. The CJEU, at 52, stated that bitcoin could not be categorised as property, as it “has no other purpose than to be a means of payment”. Furthermore, the CJEU, at 35, noted that the strict interpretation of article 135(1) of the VAT Directive of the European Union (Council Directive 2006/112/EC) (VAT Directive) needed to make way for the objectives of the article, and should not deprive the article of its intended effect. The ruling in the *David Hedqvist* case suggests that bitcoin may be regarded as a type of currency (Ram, 2018:223).

1.3.3 The alternative normal tax treatments of bitcoin gains and losses

Currency is excluded from the definition of 'asset' in paragraph 1 of the Eighth Schedule to the Act. However, the SARS (2018) has indicated that it does not regard bitcoin as a currency. Furthermore, it has been proposed that the definition of 'financial instrument' in section 1(1) of the Act be amended to include any cryptocurrency (National Treasury (South Africa), 2018:3). This amendment would give effect to the classification of bitcoin as an asset, as opposed to a currency, for normal tax purposes.

The classification of bitcoin as an asset would negate the application of section 24I of the Act to bitcoin gains and losses. Therefore, the SARS (2018) may apply what it has collectively referred to as the "normal income tax rules" to bitcoin gains and losses. According to the SARS (2018),

(f)ollowing normal income tax rules, 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 for taxation under the CGT paradigm.

Furthermore, the SARS (2018) has indicated that bitcoin mining gives rise to an immediate receipt or accrual, and that bitcoin may be held as trading stock until it is disposed of. Therefore, the normal tax treatment of bitcoin gains and losses under what the SARS (2018) has termed "normal income tax rules" may differ significantly from the normal tax treatment of bitcoin gains and losses under section 24I of the Act.

1.3.4 The generally accepted accounting treatment of bitcoin gains and losses

Section 24I of the Act aims to tax foreign exchange gains and losses in a manner which reflects generally accepted accounting practice (National Treasury (South Africa), 1993:23). In developing section 24I of the Act, the legislature considered the accounting principles of the South African *Statement of Generally Accepted Accounting Practice AC 112* (De Mare, 1995:6). The result was that section 24I of the Act was based on accounting practice, rather than on legal principles (Olivier, 2003:400).

There has been a fundamental shift in accounting practice from a historic cost basis towards fair value accounting (Whittington, 2008:140). The International Accounting

Standards Board has, however, not issued any guidance regarding the accounting for bitcoin transactions (Ram *et al.*, 2016:2; Venter, 2016:3). Authors such as Ram (2015) and Venter (2016) have debated the merits of a historic cost or fair value model as a basis for accounting for bitcoin. Section 24I(3) of the Act includes both realised and unrealised gains and losses in the determination of taxable income (De Koker & Williams, 2018:par.17.8A). Therefore, the application of section 24I of the Act to bitcoin gains and losses may align the accounting and normal tax treatment of these gains and losses, if bitcoin is accounted for using a fair value model.

Divergence in the rules pertaining to normal tax and financial accounting can be costly for taxpayers and may prevent the SARS from using accounting information to assess the accuracy of tax (National Treasury (South Africa), 2012:57). Furthermore, aligning tax provisions to accounting rules may enhance the simplicity and certainty of taxation (De Zilva, 2005:67). This is in the case of taxpayers who are required to comply with generally accepted accounting practice when compiling annual financial statements.

1.3.5 Simplicity of the normal tax treatment of bitcoin

Simplicity is a stated objective of section 24I of the Act (National Treasury (South Africa), 1993:23). The OECD (1998:4) also included “simplicity and certainty” as a broad tax principle in the *Electronic Commerce Taxation Framework Conditions*, stating that “the tax rules should be clear and simple to understand so that taxpayers can anticipate the tax consequences in advance of a transaction, including knowing when, where and how the tax is to be accounted”.

Prior to the introduction of section 24I of the Act, South African authors lamented the complexity of the normal tax treatment of foreign currency gains and losses (Divaris, 1975:48, 1980:30). Specific provisions were required to govern the normal tax treatment of foreign currency gains and losses, as the general provisions of the Act were “defective” given the nature of these gains and losses (Silke, 1975:221). It is possible, considering the nature and function of bitcoin, that the normal tax treatment of bitcoin gains and losses may be overly complex in the absence of an applicable specific provision. Treating bitcoin as an asset furthermore requires the determination of whether bitcoin was held as an income or capital asset (Antonikova, 2014:442), which may be burdensome. Therefore, treating bitcoin as foreign currency for normal

tax purposes may enhance the simplicity of the normal tax treatment of bitcoin gains and losses and increase taxpayer certainty (Berger, 2016:4).

1.4 Research objective and rationale

The overall research objective was to determine whether section 24I of the Act could be applicable to bitcoin gains and losses in terms of a purposive approach to interpretation. The overall objective was divided into the following specific objectives:

- i. To determine whether the current tax principle of neutrality may require the application of section 24I of the Act to bitcoin gains and losses.
- ii. To summarise the normal tax treatment of bitcoin gains and losses in terms of section 24I of the Act, as well as the alternative normal tax treatment if section 24I of the Act is not applicable thereto.
- iii. To compare the generally accepted accounting treatment of bitcoin gains and losses to the normal tax treatment of bitcoin gains and losses in terms of section 24I of the Act.
- iv. To evaluate the alternative normal tax treatments of bitcoin gains and losses in terms of simplicity and to determine whether the application of section 24I of the Act to bitcoin gains and losses would enhance or reduce simplicity.

The principles of neutrality and simplicity have not yet been considered in the existing body of research on the potential South African normal tax consequences of bitcoin transactions. Therefore, it was appropriate and necessary that further research be performed, with the aim of ensuring that bitcoin gains and losses are taxed in accordance with the broad taxation principles included in the OECD *Electronic Commerce Taxation Framework Conditions*.

In meeting the objectives listed above, this study demonstrates how a purposive approach may be employed to apply existing legislation to novel technologies in a manner which promotes neutrality and simplicity in taxation.

1.5 Limitations of scope

The existing literature contains various analyses of whether bitcoin meets the definition of 'asset' in paragraph 1 of the Eighth Schedule to the Act, or may fall within the ordinary meaning of the term 'currency' (see, for instance, Berger (2016), Wicht (2016)

and Coelho (2017)). The current study instead seeks to draw on the existing literature to determine whether a purposive approach to the interpretation of section 24I of the Act might indicate that the section could be applicable to bitcoin gains and losses. Therefore, while the study explores bitcoin's ability to fulfil the same functions as foreign currency from the perspective of neutrality in taxation, it does not purport to determine whether bitcoin should be classified as an asset or as a currency for the purposes of the Act.

The purpose of section 24I of the Act includes the alignment of the normal tax treatment of foreign exchange gains and losses to the principle of fairness, in addition to simplicity (National Treasury (South Africa), 1993:3). Equity in taxation is the main competing goal to tax simplification (Surrey & Brannon, 1968:915). The operation of section 24I of the Act may be considered inequitable, as the imposition of normal tax on unrealised gains may undermine the concept of 'ability to pay' (De Koker & Williams, 2018:par.17.8C). Determining whether section 24I of the Act is equitable in its application to foreign currency is outside the scope of this study. However, neutrality in the law promotes fairness (Craig, 2014:271), and may therefore enhance equity in taxation. Non-neutralities in the normal tax treatment of bitcoin and conventional currency could lead to horizontal inequity (Emery, 2016:6). Therefore, by addressing neutrality in the normal tax treatment of bitcoin, this study indirectly addresses the objective of fairness.

A further objective of section 24I of the Act is to align the normal tax treatment of foreign exchange gains and losses to economic reality (National Treasury (South Africa), 1993:3). The original premise of section 24I of the Act was that the economic reality of foreign exchange gains and losses was representative of finance charges, as noted in the background to this study. However, a unit of foreign currency held does not represent financial rights and obligations between counterparties. Therefore, it is not clear whether the amendment to the definition of 'exchange item' in section 24I(1) of the Act in 1994, which brought a unit of foreign currency within the ambit of section 24I, supports this original premise. For that reason, this study does not include an explicit objective to examine the economic reality of bitcoin gains and losses. However, generally accepted accounting practice should reflect economic substance (Venter, 2016:16). Therefore, determining whether the normal tax treatment of bitcoin gains and

losses in terms of section 24I of the Act is aligned to the generally accepted accounting treatment thereof may shed light on whether this normal tax treatment is aligned to economic reality.

Comparative studies between South Africa, the United States of America and Australia regarding the normal tax treatment of bitcoin transactions have already been performed by Berger (2016) and Wicht (2016). A comparative analysis was therefore not included in the current study, but rather international literature was consulted to achieve the stated objectives.

The proposed amendments relating to cryptocurrency in the Draft Taxation Laws Amendment Bill 2018 were released towards the end of this study. At the time of writing, the Draft Taxation Laws Amendment Bill 2018 was still in draft form. Therefore, the focus of this study is not an in-depth analysis of the impact of the proposed amendments in the Draft Taxation Laws Amendment Bill 2018 on the normal tax treatment of bitcoin gains and losses. Consequently, this study also excludes an assessment of the effects of the proposed amendments on covered persons in terms of section 24JB of the Act.

This study does not aim to address the enforceability of the taxation of bitcoin gains. The enforceability of the taxation of bitcoin gains is challenging owing to the anonymity of bitcoin transactions (Parsons, 2014:10-11). Accordingly, enforcement is a challenge regardless of whether section 24I of the Act is applicable to bitcoin gains and losses. Consequently, this limitation does not preclude a conclusion on whether the application of section 24I of the Act to bitcoin gains and losses would enhance or reduce simplicity in the normal tax treatment of these gains and losses. The enforceability of taxation of bitcoin gains is identified as an area for future research.

Certain aspects regarding the normal tax treatment of bitcoin gains and losses were excluded from the scope of this study, in order to maintain the focus of the research. Firstly, the normal tax consequences of the initial receipt of bitcoin, as documented by Parsons (2014), Berger (2016), Wicht (2016) and Coelho (2017), were only briefly alluded to. Secondly, this study considered the applicability of section 24I of the Act to gains and losses arising only from units of bitcoin held. This is due to the lack of academic literature on other bitcoin instruments which have recently emerged. These

instruments include bitcoin loans (Dob, 2018) and bitcoin futures (Cheng, 2017). Given that the study focuses only on the gains and losses arising from units of bitcoin held, the gains and losses which may occur on the disposal of an underlying asset purchased with or sold for bitcoin are not discussed. This negates an analysis of the applicability of paragraph 43 of the Eighth Schedule to the Act. Finally, this study does not address the normal tax consequences of bitcoin gains and losses of taxpayers who are not a 'resident' as defined in section 1(1) of the Act.

1.6 Research methodology

A qualitative research approach was followed to achieve the research objectives. Applied descriptive research was conducted, as the study aimed to answer a specific practical question. Exploratory research was also carried out, as the subject matter was relatively new. The research was performed through a desktop literature review. Secondary data were collected, predominantly from books, academic articles, theses, legal databases and publications by regulatory bodies. The research reflects law and policy developments up to 31 August 2018.

1.7 Chapter outline

Chapter 1: Introduction

The introduction of the study includes the background to section 24I of the Act and its potential applicability to bitcoin gains and losses. Chapter 1 also sets out the problem statements and research questions, research objectives, research methodology and scope of the study.

Chapter 2: The principle of neutrality and functional equivalence

Chapter 2 summarises the purposive approach followed by the CJEU to ensure fiscal neutrality in the *David Hedqvist* case, a case which pertained to bitcoin exchange transactions. The approach followed by the CJEU may provide guidance in considering whether the current tax principle of neutrality requires the application of section 24I of the Act to bitcoin gains and losses. The CJEU incorporated functional equivalence in their approach to the interpretation of the European Union VAT Directive. The *David Hedqvist* case is a foreign case and does not establish legal precedence for the South African judiciary. Therefore, the relevance of and rationales for the functional

equivalence approach in the South African legal environment are considered. Furthermore, literature on the functions of bitcoin is analysed to determine whether bitcoin may be regarded as a functional equivalent of foreign currency for the purposes of section 24I of the Act. The chapter concludes on whether the principle of neutrality may require the application of section 24I of the Act to bitcoin gains and losses.

Chapter 3: The alternative normal tax treatments of bitcoin gains and losses

Chapter 3 provides a discussion of the normal tax treatment of bitcoin gains and losses in terms of section 24I of the Act. This is done in order for the normal tax treatment of bitcoin gains and losses in terms of section 24I of the Act to be compared to the generally accepted accounting treatment thereof. The comparison is performed in Chapter 4. Additionally, Chapter 3 summarises the normal tax treatment of bitcoin gains and losses if section 24I of the Act is not applicable thereto. This enables an evaluation in Chapter 5 of whether the application of section 24I of the Act to bitcoin gains and losses would enhance or reduce simplicity.

Chapter 4: The accounting treatment of bitcoin gains and losses

This chapter investigates the generally accepted accounting treatment of bitcoin gains and losses with reference to *International Financial Reporting Standards*. The existing literature on the generally accepted accounting treatment of bitcoin gains and losses is synthesised. It is then determined whether the normal tax treatment of bitcoin gains and losses in terms of section 24I of the Act, as summarised in Chapter 3, is aligned to the generally accepted accounting treatment of bitcoin gains and losses.

Chapter 5: Simplicity of the normal tax treatment of bitcoin gains and losses

Chapter 5 begins by identifying factors by which to evaluate the simplicity of the normal tax treatment of bitcoin gains and losses. An evaluation of the simplicity of the two alternative normal tax treatments of bitcoin gains and losses, as summarised in Chapter 3, is then performed. A conclusion is drawn on whether the application of section 24I of the Act to bitcoin gains and losses would enhance or reduce simplicity.

Chapter 6: Conclusion

The findings of the previous chapters are summarised and considered in order to draw a conclusion on whether the application of section 24I of the Act to bitcoin gains and losses would enhance neutrality and simplicity, and whether it would align the normal tax and generally accepted accounting treatment of bitcoin gains and losses. An overall conclusion is then drawn on whether a purposive approach to the interpretation of section 24I of the Act might indicate that the section could be applicable to bitcoin gains and losses.

CHAPTER 2

THE PRINCIPLE OF NEUTRALITY AND FUNCTIONAL EQUIVALENCE

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CHAPTER 2

THE PRINCIPLE OF NEUTRALITY AND FUNCTIONAL EQUIVALENCE

2.1 Introduction

The main research question identified was whether a purposive approach to the interpretation of section 24I of the Act might indicate that the section could be applicable to bitcoin gains and losses. The current tax principles included in the OECD *Electronic Commerce Taxation Framework Conditions* need to be considered when employing a purposive approach (Stack *et al.*, 2015:152). One of the principles contained in the OECD *Electronic Commerce Taxation Framework Conditions*, which was identified as particularly relevant to the research question, is that of neutrality.

The CJEU considered the principle of fiscal neutrality in the *David Hedqvist* case, a case which pertained to bitcoin exchange transactions. It is illustrated in this chapter that the CJEU employed a purposive approach to the interpretation of article 135(1) of the European Union's VAT Directive in the *David Hedqvist* case. The approach followed by the CJEU is summarised, in order to provide guidance on whether the current tax principle of neutrality may require the application of section 24I of the Act to bitcoin gains and losses in terms of a purposive approach. This chapter also considers whether the approach followed by the CJEU may be appropriate in interpreting section 24I of the Act, given that the *David Hedqvist* case was firstly a foreign case, and secondly pertained to VAT, while section 24I of the Act governs normal tax consequences. The approach followed by the CJEU is subsequently employed to conclude on whether the current tax principle of neutrality may require the application of section 24I of the Act to bitcoin gains and losses. In employing this approach, it is determined whether bitcoin may be considered to be a functional equivalent of foreign currency for the purposes of section 24I of the Act.

2.2 Neutrality in relation to bitcoin as confirmed by the CJEU in the *David Hedqvist* case

The taxpayer in the *David Hedqvist* case wished to provide services consisting of the exchange of conventional currency for bitcoin and vice versa. Article 135(1)(e) of the VAT Directive provides that transactions "concerning currency, bank notes and coins used as legal tender" are exempt from VAT. The exemption does not apply to

“collectors’ items, that is to say, gold, silver or other metal coins or bank notes which are not normally used as legal tender or coins of numismatic interest”. The court was approached to rule on whether the exchange services provided by the taxpayer were exempt from VAT.

The court, at 35, held that the interpretation of the terms of the exemption must be

consistent with the objectives pursued by the exemptions laid down in [a]rticle 135(1) of the VAT Directive and comply with the requirements of the principle of fiscal neutrality inherent in the common system of VAT.

The principle of fiscal neutrality is a European VAT principle which states that similar items which are in competition with each other should not be treated differently for VAT purposes (Lexis PSL Tax, 2015). As can be observed in the extract above, the CJEU also considered the objectives of the article, in addition to the principle of fiscal neutrality. Considering the objectives of legislation in determining its ambit constitutes a purposive approach to the interpretation of legislation (Goldswain, 2008:116-117). Therefore, it is submitted that the CJEU followed a purposive approach to ensure neutrality in its ruling in the *David Hedqvist* case.

The court confirmed in the *David Hedqvist* case, at 48, that the objective of the exemption in article 135(1)(e) of the VAT directive was to alleviate the difficulties that arise when determining the VAT consequences of financial transactions. It confirmed further, at 35, that the interpretation of the article must not deprive it of that effect and must comply with the principle of fiscal neutrality. Finally, the court considered bitcoin to have the same function as “currency, bank notes and coins used as legal tender”, as the purpose of bitcoin is to be used as a means of payment (at 49 to 51). The exchange services provided by the taxpayer were, for those reasons, held to be exempt from VAT.

The approach followed by the CJEU shows that bitcoin may be treated as a type of currency (Ram, 2018:223). However, the CJEU did not attempt to determine whether bitcoin is more akin to an asset or to a currency in arriving at its ruling. Instead, the CJEU considered (at 51) whether an interpretation of article 135(1)(e) of the VAT Directive which excluded bitcoin, would deprive the article of part of its effect, which is

to eliminate the difficulties in determining the amount of VAT. This is consistent with the purposive approach to the interpretation of legislation.

Furthermore, in considering the principle of fiscal neutrality, the CJEU did not consider the alternative use of bitcoin as an investment. The use of bitcoin as a speculative investment was already known at the time of the case (see, for instance, South African Reserve Bank, 2014:3). Yet, the CJEU merely considered (at 52) the fact that bitcoin may function as a means of payment and is accepted as such by certain operators. It is submitted that this is a valid approach to applying fiscal neutrality, as bitcoin's alternate uses may not preclude it from competing with conventional payment systems. Moreover, article 135(1)(e) of the VAT Directive exempts all exchanges of currency from VAT, even though currency speculators are some of the main participants in the foreign exchange market (Tanamarttayararat, 2018:1).

Based on the discussion above, the approach followed by the CJEU to ensure fiscal neutrality with regard to bitcoin in terms of a purposive approach may be summarised as follows:

1. The objectives of the provision must be established.
2. It must be determined whether bitcoin has the same function as the items to which the provision pertains.
3. It must be determined whether applying the provision to bitcoin would be consistent with the objectives of the provision.

It has been proposed, in the Draft Taxation Laws Amendment Bill 2018, that “the issue, acquisition, collection, buying or selling or transfer of ownership of any cryptocurrency” be included as an activity deemed to be a financial service in section 2 of the Value-Added Tax Act No. 89 of 1991 (National Treasury (South Africa), 2018:76). The provision of financial services is an exempt supply when it is rendered in South Africa. Therefore, the enactment of this proposed amendment would align the VAT treatment of bitcoin exchange services in South Africa to the ruling of the CJEU in the *David Hedqvist* case.

However, it is submitted that the approach followed by the CJEU in interpreting article 135(1)(e) of the VAT Directive might also be employed with regard to South African

normal tax, in considering whether section 24I of the Act could be applicable to bitcoin gains and losses. It is clear that the first and third steps of the approach followed by the CJEU represent the purposive approach to interpretation. The purposive approach to interpretation has been employed by the South African judiciary in interpreting provisions of the Act (Goldswain, 2008).

In the second step of their approach, in order to ensure fiscal neutrality, the CJEU considered whether bitcoin had the same function as the items to which the provision pertains. If a similar approach were employed in interpreting section 24I of the Act, it may be considered whether bitcoin may fulfil the same functions as foreign currency. It needed to be established whether this approach may be appropriate in interpreting section 24I of the Act, as

- the *David Hedqvist* case pertains to VAT, whereas section 24I of the Act governs normal tax consequences, and
- the *David Hedqvist* case is a foreign case and does not establish legal precedence for the South African judiciary.

Firstly, it is demonstrated that the European VAT principle of fiscal neutrality, which pertains to indirect taxes, is comparable to the current tax principle of neutrality. The current tax principle of neutrality, as included in the OECD *Electronic Commerce Taxation Framework Conditions*, pertains to both direct and indirect taxes (Bal, 2014b). Secondly, it is demonstrated that determining whether bitcoin has the same function as the items to which a provision pertains may be appropriate in interpreting the Act, given the relevance of the functional equivalence approach to interpretation in the South African legal environment.

2.3 The principle of neutrality as included in the OECD *Electronic Commerce Taxation Framework Conditions*

The principle of neutrality dictates that taxation should be neutral between taxpayers carrying out similar transactions through conventional and electronic forms of commerce (OECD, 1998:4). According to Stavrou and Jackson (2001, quoted by Potgieter, 2002:3) “electronic commerce covers any form of business or administrative transaction or information exchange that is executed using any information and

communications technology". Bitcoin is an electronic payment system (Nakamoto, 2008:1-2) and may therefore constitute an electronic form of commerce.

The committee on Fiscal Affairs of the OECD provided guidelines for the tax treatment of electronic commerce transactions in the OECD *Electronic Commerce Taxation Framework Conditions* in 1998. This followed on the OECD's recognition of the potential of electronic commerce to fuel economic growth (OECD, 1998:3). Accordingly, the OECD (1998:3) stated that revenue authorities must create fair and predictable tax systems wherein the potential benefits of electronic commerce can be realised.

According to the OECD *Electronic Commerce Taxation Framework Conditions*, electronic commerce transactions should not be subject to discriminatory tax treatment. The same taxation principles which guide the taxation of conventional commerce should also be applied when taxing electronic commerce transactions (OECD, 1998:3). The broad taxation principles, which should apply equally to conventional and electronic commerce, are: neutrality, efficiency, certainty and simplicity, effectiveness and fairness, and flexibility (OECD, 1998:4).

The OECD *Electronic Commerce Taxation Framework Conditions* (1998:4) states the following about the application of the principle of neutrality to electronic commerce transactions:

Taxation should seek to be neutral and equitable between forms of electronic commerce and between conventional and electronic forms of commerce. Business decisions should be motivated by economic rather than tax considerations.

Taxpayers in similar situations carrying out similar transactions should be subject to similar levels of taxation.

The CJEU considered the European VAT principle of fiscal neutrality in the *David Hedqvist* case. The principle of fiscal neutrality states that similar items which are in competition with each other should not be treated differently for VAT purposes (Lexis PSL Tax, 2015). Items are similar if they may meet the same needs from the consumer's point of view ((Lexis PSL Tax, 2015). It follows that, in terms of the principle of fiscal neutrality, a different VAT treatment should not influence the decision of the consumer as to which item to purchase. The principle of neutrality as included in the

OECD *Electronic Commerce Taxation Framework Conditions* (1998:4) states that “decisions should be motivated by economic rather than tax considerations”. In this respect, the principle of fiscal neutrality, which relates to indirect taxes, appears similar to the current tax principle of neutrality, which relates to both direct and indirect taxes. On this basis, it is submitted that it may be appropriate to consider whether bitcoin may fulfill the same functions as foreign currency in determining whether the current tax principle of neutrality requires the application of section 24I of the Act to bitcoin gains and losses.

Notwithstanding the discussion above, South Africa is not a member country of the OECD, holding only observer status (OECD, 2018). The legislature and the SARS are under no legal obligation to implement the recommendations of the OECD regarding the taxation of electronic commerce (Berger, 2016:18). However, the inclusion of the broad taxation principles of the OECD in the *Green Paper on Electronic Commerce for South Africa* (Department of Communications (South Africa), 2000) and the assertion that these principles are aligned to the views held by the SARS (Department of Communications (South Africa), 2000:37) indicate that the principle of neutrality may be relevant in the interpretation of South African tax legislation.

Furthermore, it has been submitted that the current tax principles included in the OECD *Electronic Commerce Taxation Framework Conditions* need to be considered when employing a purposive approach to the interpretation of the Act (Stack *et al.*, 2015:152). Next, it is illustrated that determining whether bitcoin has the same function as the items to which a provision pertains may be appropriate in interpreting the Act, given the relevance of the functional equivalence approach to interpretation in the South African legal environment.

2.4 Relevance of the functional equivalence approach in South African law

In the second step of their approach, the CJEU considered whether bitcoin had the same function as the items to which the provision pertains. The functional equivalence approach entails applying the law equally to new technologies which have the same function or effect as their conventional counterparts (Bardopoulos, 2012:62; Craig, 2016:612). It follows that the CJEU incorporated functional equivalence in their

approach to ensure neutrality in the taxation of bitcoin. Therefore, the relevance of the functional equivalence approach in South African law is considered.

The functional equivalence approach may be relevant in South African law, as it is supported by the *Green Paper on Electronic Commerce for South Africa* (Department of Communications (South Africa), 2000). Furthermore, it is incorporated in the South African Electronic Communications and Transactions Act No. 25 of 2002 (ECT Act) (Potgieter, 2002:57).

2.4.1 *Green Paper on Electronic Commerce for South Africa*

The *Green Paper on Electronic Commerce for South Africa* (green paper) was published to serve as a consultative document in the development of electronic commerce policy in South Africa (Department of Communications (South Africa), 2000:18). The green paper sets out eight underlying principles for the development of electronic commerce policy in South Africa, including the principle of technological neutrality (Department of Communications (South Africa), 2000:18). The principle of technological neutrality stipulates that laws should not favour or discriminate against the use of any specific technologies (Commission of the European Communities, 1999:vi). According to the green paper (Department of Communications (South Africa), 2000:28), “the use of an electronic medium should not affect the laws that would ordinarily govern the transaction” and legislation governing electronic commerce must conform to international standards and rules (Department of Communications (South Africa), 2000:25). The green paper makes specific reference to the *Model Law on Electronic Commerce* (Model Law) developed by the United Nations Commission on International Trade Law (Department of Communications (South Africa), 2000:25).

The Model Law relies on the functional equivalence approach to achieve technological neutrality (Potgieter, 2002:37). The functional equivalence approach considers how the functions of a conventional paper-based requirement could be fulfilled through electronic commerce techniques (United Nations, 1996:20). Through this approach, existing laws applying to paper-based transactions are evaluated to determine whether these laws can be applied to the equivalent electronic commerce transactions (Bardopoulos, 2012:61). Employing this approach allows for the non-discriminatory, equal legal treatment of different media (Potgieter, 2002:58). It is evident from the tax

principles included in the OECD *Electronic Commerce Taxation Framework Conditions* that the functional equivalence approach of the Model Law has been “extended to the imposition of tax on electronic commerce” (Bardopoulos, 2012:62).

The green paper suggests that South African legislation be aligned to the Model Law (Department of Communications (South Africa), 2000:25). Submissions received in response to the green paper supported the approach followed by the Model Law as a guide in regulating electronic commerce in South Africa (Potgieter, 2002:21). Therefore, the functional equivalence approach may be relevant to the South African legal environment, as it is supported by the green paper, which draws on the Model Law. The ECT Act further confirms the importance of the functional equivalence approach in South African legislation.

2.4.2. The Electronic Communications and Transactions Act No. 25 of 2002

The ECT Act was promulgated in 2002 and lists the promotion of “technological neutrality in the application of legislation to electronic communications and transactions” as one of its objectives in section 2(f) (South Africa, 2002). The ECT Act was substantially based on the Model Law and incorporated the functional equivalence approach (Nangela, 2012:328; Potgieter, 2002:2).

It appears that the adoption of the functional equivalence approach in the ECT Act illustrates the legislature’s intention to apply the law in a way that does not discriminate between different types of technologies. For that reason, it is considered whether the functional equivalence approach could be followed in interpreting the Act.

2.5 Rationales for employing the functional equivalence approach in the interpretation of the Act

The previous section demonstrated that the functional equivalence approach may be relevant to the South African legal environment. Three rationales have been identified for employing the functional equivalence approach in interpreting the Act. These are discussed next.

2.5.1 The promotion of fairness and equity in taxation

Section 39(2) of the Constitution of the Republic of South Africa provides that the interpretation of any legislation “must promote the spirit, purport and objects of the Bill

of Rights”. Therefore, the Constitution of the Republic of South Africa requires the South African judiciary to follow a purposive approach to the interpretation of tax legislation that promotes the values of fairness and equity (Goldswain, 2008:115).

Fairness, equity and justice in the law are generally promoted by neutrality and non-discrimination (Craig, 2014:271). The functional equivalence approach ensures non-discrimination by applying the law equally to new technologies which have the same function or effect as older technologies (Bardopoulos, 2012:62; Craig, 2016:612). Hence, considering functional equivalence in the interpretation of tax legislation promotes the Constitutional values of fairness and equity. Moreover, neutrality in tax legislation ensures an optimal allocation of resources in the market (OECD, 2014:30).

2.5.2 Optimal allocation of resources in the market

The tax system should raise tax revenue “while minimising discrimination in favour of, or against, a particular economic choice” (OECD, 2014:30). Where tax legislation discriminates between different types of technology, competition in the market is distorted (Ali, 2009:11; Van der Haar, 2007:22). Non-neutralities in the tax system also encourage taxpayers to direct resources to restructure transactions solely to reduce tax payments (Furman, 2008:2), leading to inefficiencies. Therefore, technology-neutral legislation stimulates competition and innovation in the market, improving market efficiencies (Van der Haar, 2007:8). Employing the functional equivalence approach to establish technological neutrality may therefore contribute to the optimal allocation of resources in the market. A further rationale for employing the functional equivalence approach in interpreting tax legislation is to ensure the sustainability of legislation.

2.5.3 Sustainability of legislation

It is a general principle of drafting legislation that the law should be sustainable (Koops, 2006). Legislation should be drafted in a technology-neutral way which incorporates functional definitions to “future-proof” the law (Ali, 2009; Van der Haar, 2007). However, it is not always possible to draft legislation that can keep up with the rapid changes in technology (Moses, 2007:239). Applying existing laws equally to new technologies which have the same function or effect as older technologies enhances

the sustainability of legislation by avoiding the frequent redrafting of legislation to keep up with technological developments (Swales, 2014:258).

It may be appropriate, based on the discussion in the previous sections, to employ the functional equivalence approach to interpret the Act in a way which gives effect to the principle of neutrality. It may therefore be appropriate to follow the approach employed by the CJEU in the *David Hedqvist* case in considering whether the current tax principle of neutrality requires the application of section 24I of the Act to bitcoin gains and losses.

Based on the approach followed by the CJEU, determining whether the current tax principle of neutrality requires the application of section 24I of the Act to bitcoin gains and losses requires a determination of whether bitcoin is a functional equivalent to foreign currency. This study thus set out to determine whether bitcoin, for the purposes of this research regarded as new technology, has the same function or effect as foreign currency, which may be regarded as the conventional counterpart of bitcoin.

2.6 Bitcoin as a functional equivalent of foreign currency

The SARS (2018) has indicated that cryptocurrencies, typified by bitcoin, are not regarded as currency for normal tax purposes, because they are not official South African tender and are not widely accepted as a medium of exchange. However, these characteristics possibly do not preclude bitcoin from being considered a functional equivalent to foreign currency for the purposes of section 24I of the Act.

Davis AJA remarked, in *Pyott Ltd v CIR* (1945) 13 SATC 121, at 125, that “foreign currency is not cash: it is not legal tender”. This led Divaris (1975:12) to remark that “foreign currency is a commodity just like any other commodity”. Currencies are generally considered to be assets in the ordinary sense (Winterton, 2001), and would therefore fall within the definition of ‘asset’ in paragraph 1 of the Eighth Schedule to the Act, if they were not specifically excluded. Thus, in determining whether bitcoin has the same function or effect as foreign currency, it is not necessary to illustrate that bitcoin cannot function as an asset. Instead, it will be illustrated that bitcoin may fulfil the functions of foreign currency to a far greater extent than other assets may fulfil those functions.

As discussed in Chapter 1.3.1, currency is generally understood to be money. Economic theory states that money functions as a medium of exchange, store of value and unit of account (Ali, Barrdear, Clews & Southgate, 2014:1). Thus, for the purpose of this study, these three functions are considered to be the functions of foreign currency. Bitcoin's ability to fulfil the same economic functions as foreign currency is discussed next.

2.6.1 Bitcoin as a medium of exchange

According to the Oxford English Dictionary (2018b), a medium of exchange is “anything commonly agreed as a token of value and used in transactions in a trading system”.

Many authors agree that bitcoin functions as a medium of exchange, as it can be exchanged for goods and services (Antonikova, 2014:462; Davidson & Block, 2015:312; Dyhrberg, 2016:92; Mandjee, 2014:14). Practically every asset may be exchanged for goods and services, in terms of a barter transaction. However, the challenge in using most assets as a medium of exchange is their lack of divisibility. For instance, it may not be possible to pay for a R20 cup of coffee with a fifth of a debenture with a value of R100. Since it exists in a virtual form, bitcoin is infinitely divisible (Bal, 2014b:62; Emery, 2016:19). Therefore, it can be exchanged for goods and services of different values, enhancing its function as a medium of exchange. Another possible challenge to using some asset classes as a medium of exchange is the difficulty in transferring an asset from one person to another. However, bitcoin is freely transferable between parties, and because it exists in digital form, may be instantly transferred from one part of the world to another (Torpey, 2016).

Nonetheless, some authors object that bitcoin is not yet sufficiently widely accepted to qualify as a medium of exchange (Goodspeed, 2014; International Monetary Fund, 2016:17; McCallum, 2015:349; Yermack, 2013:9). The counterargument to this objection is that many conventional currencies are not widely accepted outside their country of issue (Tan & Low, 2017:220-224). There is no threshold in terms of volume or value of transactions that a currency needs to exceed to qualify as a medium of exchange. Moreover, the daily trade volume of bitcoin has exceeded that of many smaller recognised currencies such as the Cambodian Riel (Carrick, 2016:2323).

A South African payment gateway, PayFast, added bitcoin as a payment option to its payment platform in July 2014, enabling bitcoin access to more than 30 000 South African online merchants (Southurst, 2014). Therefore, bitcoin may be more widely accepted as a medium of exchange in South Africa than some conventional foreign currencies. On this basis, it is submitted that bitcoin is functionally equivalent to foreign currency in terms of functioning as a medium of exchange in South Africa. Next, it is considered whether bitcoin can function as a unit of account.

2.6.2 Bitcoin as a unit of account

The second function of foreign currency is its ability to function as a unit of account, that is, “a common denominator that allows individuals to relate and compare the values of different goods and services” (Mittal, 2012:15).

Bitcoin has been formally recognised by Germany’s ministry of finance as a unit of account (Arthur, 2013). National Treasury (2014) also recognised the ability of virtual currencies such as bitcoin to serve as a unit of account, by defining virtual currency as “a unit of account that is digitally or electronically created and stored”.

To serve as an efficient unit of account, a currency must be readily divisible and provide a relative measure of value (Bal, 2014b:61; Yermack, 2013:11). Bitcoin meets the requirement of being readily divisible. Since it exists in a virtual form, bitcoin is infinitely divisible and can accommodate the valuation of different sizes of transactions (Bal, 2014b:62; Emery, 2016:19).

Bitcoin also meets the requirement of providing a relative measure of value, as it has a market value and can be used to compare the values of different goods and services (Emery, 2016:19). It has been asserted that bitcoin’s ability to convey the relative prices of goods and services is reduced by the fact that it trades at different values on different exchanges (Ciaian, Rajcaniova, & Kancs, 2016a; Perugini & Maioli, 2014:7; Yermack, 2013:11). This problem may be addressed by referring to the Winkdex Index, which serves as a price index for bitcoin by combining the prices of recent trades to determine the market value of bitcoin (Mandjee, 2014:16). As an analogy, although foreign currencies are sold at different prices by different South African banks, the South African Reserve Bank determines a weighted average of the banks' daily rates (South African Reserve Bank, 2018).

In the light of the characteristics discussed above, it is submitted that bitcoin may be functionally equivalent to foreign currency as a unit of account. Next, it is considered whether bitcoin can function as a store of value.

2.6.3 Bitcoin as a store of value

The third economic function of foreign currency is to serve as a store of value; that is, to act as a medium through which purchasing power can be transferred from the present day to a future date (Ali *et al.*, 2014a:264). Bitcoin can be acquired and stored in a bitcoin wallet until it is sold or spent at a future date (Lambert, 2016:92). Various authors are of the view that bitcoin does function as a store of value (Emery, 2016:23; Mandjee, 2014:14; Spano, 2014:32; Van Alstyne, 2014:30). The fact that some users are acquiring bitcoin as a longer-term investment also indicates that it can act as a store of value (Carrick, 2016:2323). However, owing to its volatility, several authors have criticised bitcoin as a poor store of value (Allen, 2017:904; Böhme *et al.*, 2016:226; Grant, 2015:14; Mittal, 2012:16; Yermack, 2013:16).

Nonetheless, volatility does not disqualify a currency from functioning as a store of value (Carrick, 2016:2323; Tan & Low, 2017:224; Van Alstyne, 2014:23). In refuting the volatility objection, authors have referred to various foreign currencies which have been regarded as money regardless of their volatility. Examples include the Russian rouble (Tan & Low, 2017:225), Mexican peso (McCullum, 2015:871) and Thai baht (Emery, 2016:22). A recent example is that of the Turkish lira, which in August 2018 had a volatility comparable to that of bitcoin (Martin, 2018).

Another possible impediment to bitcoin's ability to function as a store of value may be its lack of government backing, as this may affect future demand (Ali *et al.*, 2014a; Bal, 2014b; Plassaras, 2013). However, future demand may be driven by the benefits of using bitcoin as a method of payment, as discussed in the background to this study. Furthermore, bitcoin's lack of government backing may eventually result in bitcoin being a more stable store of value than some foreign currencies, as it is independent from political influence (Bal, 2014b; Plassaras, 2013). For example, the volatility of the lira in August 2018, as discussed above, was impacted by the Turkish president's unorthodox interest rate policies. (Martin, 2018). Governmental policy decisions should have a lesser effect on the value of bitcoin, as it is decentralised.

In conclusion, although bitcoin's volatility may prevent it from being an ideal store of value, the same could be said for various conventional foreign currencies. There are many other asset classes that are superior stores of value when compared to currency (Graham, 1940:2). Yet fundamentally, the fact that bitcoin can be acquired and stored until it is sold at a future date illustrates that it can fulfil the same function as foreign currency in acting as a store of value.

It is concluded from the arguments above that bitcoin may fulfil the functions of foreign currency as a medium of exchange, unit of account and store of value, despite its price volatility and limited acceptance. It will now be considered whether bitcoin may be considered a functional equivalent to foreign currency for the purposes of section 24I of the Act.

2.6.4 Bitcoin as a functional equivalent of foreign currency for the purposes of section 24I of the Act

Notwithstanding the fact that bitcoin may fulfil the same functions as foreign currency, a criticism against treating bitcoin as currency for normal tax purposes is that bitcoin has different uses for different users (Ali *et al.*, 2014b:2). Wiseman (2016:439) and Wicht (2016:92) have proposed that bitcoin be categorised either as a currency or as an asset, depending on whether it is being used by the taxpayer as a method of payment or as an investment.

Bitcoin was first created for use as a method of payment (Nakamoto, 2008:1), but research suggests that, owing to its significant increase in value over the past years, bitcoin is being predominantly acquired and held as an investment (Baur, Hong & Lee, 2017:187; Glaser, Zimmermann, Haferkorn, Weber & Siering, 2014:13). Owing to the price volatility of bitcoin, it is used by some as a speculative investment (South African Reserve Bank, 2014:3). Bitcoin is held by others as a longer-term investment, which is referred to as bitcoin hoarding (Van Alstyne, 2014:32). The use of bitcoin as an investment gives rise to the question of whether, in terms of the principle of neutrality, a taxpayer investing in bitcoin should be in a comparable normal tax position to a taxpayer investing in foreign currency, or in a comparable normal tax position to a taxpayer investing in another asset class.

Section 24I of the Act applies to all the foreign currency gains and losses of certain persons, irrespective of whether they are income or capital in nature (De Koker & Williams, 2018:par.17.8A). Therefore, section 24I of the Act may apply not only to gains and losses resulting from foreign currency held for use as a medium of exchange, but also to gains and losses resulting from foreign currency speculation and longer-term foreign currency investments. The principle of neutrality dictates that “taxation should seek to be neutral and equitable between ... conventional and electronic forms of commerce”. Foreign currency may be regarded as part of the conventional payment system. As bitcoin is an electronic payment system which may fulfil the same functions as foreign currency, it is submitted that a taxpayer investing in bitcoin should be in a comparable normal tax position to a taxpayer investing in foreign currency.

If the alternative view is taken, namely that a taxpayer investing in bitcoin should be in a comparable normal tax position to a taxpayer investing in another asset class, this may deprive section 24I of the Act of its intended effect. The objectives of section 24I of the Act have been discussed in the background to this study. Prior to the introduction of section 24I of the Act, the normal tax treatment of foreign currency gains and losses gave rise to various practical difficulties (SARS, 1999:2). As bitcoin may fulfil the functions of foreign currency to a greater extent than other asset classes, and because units of bitcoin are identical to each other, those same practical difficulties may arise if bitcoin gains and losses do not fall within the ambit of section 24I of the Act. For example, it may also prove difficult to determine a taxpayer’s intention in acquiring bitcoin, and the taxpayer’s intention may easily change over time (Wiener *et al.*, 2013:38). This is discussed further in Chapter 5.

Consequently, it is submitted that bitcoin may be regarded as a functional equivalent of foreign currency for the purposes of applying section 24I of the Act, irrespective of whether it is used by the taxpayer as a method of payment or as an investment.

2.7 Summary and conclusions

As is evident in the *David Hedqvist* case, the neutral interpretation of a provision in relation to bitcoin requires the following approach:

1. The objectives of the provision must be established.
2. It must be determined whether bitcoin has the same function as the items to which the provision pertains.
3. It must be determined whether applying the provision to bitcoin would be consistent with the objectives of the provision.

Chapter 2 has determined that the approach employed by the CJEU in the *David Hedqvist* case may be appropriate in interpreting section 24I of the Act. The objectives of section 24I of the Act were established in Chapter 1. Chapter 2 has established that bitcoin may fulfil the same functions as foreign currency, to a greater extent than other asset classes. Accordingly, it was concluded that bitcoin may be regarded as a functional equivalent of foreign currency. This suggests that the current tax principle of neutrality may require the application of section 24I of the Act to bitcoin gains and losses.

The purpose of section 24I of the Act is to tax foreign exchange gains and losses in a manner which considers not only current tax principles, but also generally accepted accounting practice and, specifically, the principle of simplicity. It therefore remains to be established whether the application of section 24I of the Act would align the normal tax treatment of bitcoin gains and losses to the generally accepted accounting treatment thereof, and whether it would enhance simplicity in the normal tax treatment of bitcoin gains and losses. This is determined in Chapters 4 and 5. To that end, the two alternative normal tax treatments of bitcoin gains and losses are summarised next, in Chapter 3.

CHAPTER 3**THE ALTERNATIVE NORMAL TAX TREATMENTS OF BITCOIN GAINS AND LOSSES**

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CHAPTER 3

THE ALTERNATIVE NORMAL TAX TREATMENTS OF BITCOIN GAINS AND LOSSES

3.1 Introduction

It was submitted in the previous chapter that bitcoin may be regarded as a functional equivalent of foreign currency for the purposes of interpreting section 24I of the Act. However, the SARS (2018) has indicated that it does not regard bitcoin as a currency. Furthermore, it has been proposed that the definition of 'financial instrument' in section 1(1) of the Act be amended to include any cryptocurrency (National Treasury (South Africa), 2018:3). This amendment would give effect to the classification of bitcoin as an asset, as opposed to a currency, for normal tax purposes. Therefore, the SARS (2018) will apply "normal income tax rules" to bitcoin gains and losses.

This chapter provides an overview of the two alternative normal tax treatments of bitcoin gains and losses, namely:

- the normal tax treatment of bitcoin gains and losses in terms of section 24I of the Act, which may apply if bitcoin is regarded as a functional equivalent of foreign currency for normal tax purposes; and
- the normal tax treatment of bitcoin gains and losses in terms of the "normal income tax rules" alluded to by the SARS, which may apply if bitcoin is regarded as an asset (or specifically, as a financial instrument) for normal tax purposes.

The normal tax treatment of bitcoin gains and losses in terms of section 24I of the Act, as set out in this chapter, is compared to the generally accepted accounting treatment of bitcoin gains and losses in Chapter 4. The two alternative normal tax treatments of bitcoin gains and losses summarised in this chapter are also evaluated in terms of simplicity in Chapter 5, to determine whether the application of section 24I of the Act to bitcoin gains and losses would enhance or reduce simplicity in the normal tax treatment thereof. The normal tax treatment of bitcoin gains and losses in terms of section 24I of the Act is provided first.

3.2 The normal tax treatment of bitcoin gains and losses in terms of section 24I of the Act

Extracts from section 24I of the Act are provided in Annexure A. Section 24I(3)(a) of the Act provides for the inclusion in or deduction from income of any exchange differences in respect of an exchange item. The definition of 'exchange item' in Section 24I(1) of the Act includes, inter alia:

an amount in a foreign currency –
(a) which constitutes any unit of currency acquired and not disposed of by that person.

Therefore, if bitcoin is regarded as a functional equivalent to foreign currency for the purposes of section 24I of the Act, the calculation of exchange differences on units of bitcoin held becomes relevant. The definition of 'exchange difference' in section 24I(1) of the Act indicates how an exchange difference should be calculated in four possible scenarios. The calculation of the exchange difference depends on whether the exchange item was acquired in the current or a previous year of assessment, and on whether the exchange item has been realised during the current year of assessment (De Koker & Williams, 2018:par.17.8C).

In terms of the definition of 'exchange difference', an exchange difference is calculated as the amount in foreign currency multiplied by the difference in the ruling exchange rate on the transaction date (or the rate on the last day of the previous year of assessment, if the transaction took place in a previous year of assessment) and the realisation date (or the rate on the last day of the year of assessment if the exchange item has not been realised during the current year of assessment) (De Koker & Williams, 2018:par.17.8C). The terms 'transaction date' and 'realised' are in turn defined in relation to each type of exchange item listed in the definition of 'exchange item'. For an amount which constitutes a unit of currency, the transaction date is the date on which that unit of currency was acquired (paragraph (g) of the definition of 'transaction date' in section 24I(1) of the Act). The realisation date is the date on which the unit of currency is disposed of (paragraph (d) of the definition of 'realised' in section 24I(1) of the Act).

The effect of the definitions discussed above is that both realised and unrealised foreign currency gains and losses are included in or deducted from income (De Koker & Williams, 2018:par.17.8A). Where an exchange item has not been realised at the end of a year of assessment, the exchange item is translated to a rand value at the ruling exchange rate at the end of the year (De Koker & Williams, 2018:par.17.8C). Any unrealised gain or loss resulting from this translation is included in or deducted from income (De Koker & Williams, 2018:par.17.8A). When the exchange item is realised in a subsequent year of assessment, the gain or loss included in income is the change in rand value from the translated value at the end of the previous year of assessment until the date of realisation (De Koker & Williams, 2018:par.17.8C).

Therefore, where a unit of bitcoin was acquired during the *current* year of assessment, the gain or loss which may be included in or deducted from the income of the taxpayer in terms of section 24I(3) of the Act is the amount in bitcoin multiplied by the difference between the ruling exchange rate on the date the bitcoin was acquired and the ruling exchange rate:

- i) at which the bitcoin was disposed of during the year of assessment, or
- ii) on the last day of the year of assessment, if the bitcoin has not been disposed of.

Where a unit of bitcoin was acquired during a *previous* year of assessment, the gain or loss which may be included in or deducted from the income of the taxpayer is the amount in bitcoin multiplied by the difference between the ruling exchange rate on the last day of the previous year of assessment and the ruling exchange rate:

- i) at which the bitcoin was disposed of during the year of assessment, or
- ii) on the last day of the year of assessment, if the bitcoin has not been disposed of.

Both the calculations above are based on the ruling exchange rate. Paragraphs (d)(i) to (d)(iii) of the definition of 'ruling exchange rate' in section 24I(1) of the Act specify that the ruling exchange rate with regard to a unit of currency is the spot rate in all instances (that is, on transaction date, on realisation date and upon translation at the end of the year of assessment). Section 1(1) of the Act defines the 'spot rate' as "the

appropriate quoted exchange rate at a specific time by any authorised dealer in foreign exchange for the delivery of currency”, which would preclude the rates quotes by virtual currency exchanges. However, the proviso to the definition of ‘ruling exchange rate’ in section 24I(1) of the Act provides that

“the Commissioner may, having regard to the particular circumstances of the case, prescribe an alternative rate to any of the aforementioned prescribed rates to be applied by a person in such particular circumstances, if such alternative rate is used for the purposes of financial reporting pursuant to IFRS;”

It is recommended that the Commissioner prescribe a rate to be used as the ruling exchange rate to convert bitcoin to rand, which is appropriate for the purposes of *International Financial Reporting Standards* (IFRSs). The accounting treatment of bitcoin gains and losses in terms of IFRSs is discussed in Chapter 4.

Notwithstanding the discussion above, the provisions of section 24I of the Act are not applicable to the foreign exchange gains and losses incurred by a natural person who does not hold any units of foreign currency as trading stock (in terms of section 24I(2) of the Act). Subsequent to the deletion of Part XIII of the Eighth Schedule, natural persons to whom section 24I of the Act does not apply are not subject to capital gains tax in respect of any foreign currency gains and losses (National Treasury (South Africa), 2011:120). Therefore, if bitcoin is regarded as a functional equivalent to foreign currency for the purposes of section 24I of the Act, a natural person who does not hold bitcoin or any units of conventional foreign currency as trading stock might not take bitcoin gains and losses into account in his or her taxable income calculation.

One of the objectives of this study is to determine whether the application of section 24I of the Act to bitcoin gains and losses, as described above, would enhance or reduce simplicity in the normal tax treatment of bitcoin gains and losses. This requires an evaluation of the simplicity of the normal tax treatment of bitcoin gains and losses in terms of section 24I of the Act, as well as an evaluation of simplicity in the alternative case, if section 24I of the Act is not applied. Thus, the normal tax treatment of bitcoin gains and losses, if section 24I of the Act is not applicable thereto, is discussed next.

3.3 The normal tax treatment of bitcoin gains and losses if 24I of the Act is not applicable thereto

As an alternative to being regarded as a functional equivalent to foreign currency subject to section 24I of the Act, bitcoin may be treated as an asset for normal tax purposes (Berger, 2016:49; SARS, 2018; Wicht, 2016:84). In that case, section 24I of the Act will not be applicable to bitcoin gains and losses. It appears that the legislature intends to classify bitcoin as an asset for normal tax purposes, based on the proposed amendment to the definition of 'financial instrument' in section 1(1) of the Act to include any cryptocurrency (National Treasury (South Africa), 2018:3).

Based on the definitions of 'asset' and 'capital asset' in the Eighth Schedule to the Act (Eighth Schedule), an asset must be either a capital asset or trading stock. Therefore, the normal tax treatment of bitcoin gains and losses, if bitcoin is regarded as an asset for the purposes of the Act, will depend on whether bitcoin is held as trading stock or as a capital asset.

3.3.1 The normal tax treatment of bitcoin gains and losses where bitcoin is held as trading stock

If held as trading stock, bitcoin gains and losses may be subject to what the SARS (2018) has termed the "normal income tax rules", which include:

- the definition of 'gross income' in section 1(1) of the Act (Berger, 2016:50; Coelho, 2017:8-9; Parsons, 2014:8-9; SARS, 2018; Wicht, 2016:74-78);
- the general deduction formula in sections 11(a), read with section 23(g) of the Act (Berger, 2016:50; Wicht, 2016:78-79); and
- the specific provisions relating to trading stock in section 22 of the Act (Berger, 2016:72-73; Coelho, 2017:10).

The application of the provisions above to bitcoin gains and losses, where bitcoin is held and disposed of as trading stock, is summarised below.

3.3.1.1 Inclusion of proceeds in gross income where bitcoin is held and disposed of as trading stock

In the case of a resident, 'gross income' is defined in section 1(1) of the Act as

the total amount, in cash or otherwise, received by or accrued to or in favour of such resident ... during such year or period of assessment, excluding receipts or accruals of a capital nature.

The proceeds from the disposal of bitcoin held as trading stock are amounts which are not of a capital nature (Parsons, 2014:9-10). Therefore, such amounts may be included in gross income in terms of the general definition of 'gross income' in section 1(1) of the Act (Berger, 2016:50).

It was held, in *WH Lategan v CIR* (1926) 2 SATC 16, at 19, that the term 'amount' includes not only money, but the value of every form of property earned by the taxpayer which has a monetary value, whether corporeal or incorporeal. Where the taxpayer disposes of bitcoin in exchange for goods or services, the transaction constitutes a barter (Berger, 2016:78). The market value of the goods or services received may thus constitute an amount to be included in gross income (Wicht, 2016:62).

An unrealised appreciation in the value of an asset does not constitute an amount 'received by' or 'accrued to', as defined by the judiciary, and for that reason cannot be included in gross income (Stiglingh *et al.*, 2018:36). Consequently, unrealised bitcoin gains are not included in gross income.

3.3.1.2 Deduction from income of expenditure incurred in the acquisition of bitcoin as trading stock

The expenditure incurred in the acquisition of trading stock may generally be deducted in terms of section 11(a) of the Act, provided that all the requirements of the general deduction formula are met (Stiglingh *et al.*, 2018:433, 437). The general deduction formula comprises both a positive test, in section 11(a) of the Act, and a negative test, in section 23(g) of the Act (Stiglingh *et al.*, 2018:114). Section 11(a) of the Act sets out what may be deducted, by providing that

[f]or 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.

This positive test must be applied in conjunction with the negative test in section 23(g) of the Act, which stipulates that expenditure may only be deducted to the extent to which the expenditure was laid out for the purposes of trade. The SARS (2018) has indicated that “expenses associated with cryptocurrency accruals or receipts” may be claimed as deductions, provided that “such expenditure is incurred in production of the taxpayer’s income and for purposes of trade”. Whether a taxpayer is carrying on a trade will depend on the facts of each case (De Koker & Williams, 2018:par.7.2). It was also held in *CIR v Genn & Co (Pty) Ltd* (1955) 20 SATC 113, at 120, that whether expenditure incurred is in production of income will depend on the circumstances of a case.

It was noted in the background to this study that taxpayers generally acquire bitcoin through the process of bitcoin mining, by purchasing bitcoin with conventional currency on a bitcoin exchange or by receiving bitcoin in exchange for goods and services (Turpin, 2014:340; Wicht, 2016:21). The expenditure incurred when mining bitcoin, such as the electricity cost incurred to operate computers, may be allowed as deductions if the requirements of the general deduction formula are met. Similarly, the cost price of bitcoin purchased on a bitcoin exchange may be deductible for normal tax purposes. Further, expenditure includes not only money spent, but also payments made through the transfer of other assets with a monetary value (Stiglingh *et al.*, 2018:142). Consequently, the market value of goods transferred in exchange for bitcoin may be allowed as a deduction. The expenditures incurred by a taxpayer in order to provide services in exchange for which bitcoin is received may also be allowed as a deduction if the requirements of the general deduction formula are met.

3.3.1.3 Amounts to be taken into account in respect of the value of trading stock

Section 22(1)(a) of the Act requires that the value of trading stock held and not disposed of at the end of the year of assessment (that is, the value of closing stock) be included in taxable income (Stiglingh *et al.*, 2018:435). In terms of section 22(1)(a) of the Act, the amount to be included in taxable income is

the cost price to such person of such trading stock, less such amount as the Commissioner may think just and reasonable as representing the amount by which the value of such trading stock, not being any financial instrument, has been

diminished by reason of damage, deterioration, change of fashion, decrease in the market value or for any other reason satisfactory to the Commissioner.

Thus, the value to be included in taxable income where an asset is held as trading stock is generally the cost price of the trading stock, less any amount by which the value of the trading stock has diminished owing to, inter alia, a decrease in market value. The South African income tax system is generally realisation-based, with unrealised losses usually not being taken into account in the determination of taxable income (Swart, 2003:467). Section 22(1)(a) of the Act is arguably the most important exception to the realisation basis, as it results in unrealised losses arising from trading stock being taken into account in determining taxable income (Swart, 2003:467).

However, section 22(1)(a) of the Act refers to “trading stock, not being any financial instrument”. It has been proposed that the definition of ‘financial instrument’ in section 1(1) of the Act be amended to include any cryptocurrency (National Treasury (South Africa), 2018:3). The proposed amendment would prevent taxpayers from taking unrealised bitcoin losses into account where bitcoin is held as trading stock. This may be one of the reasons for the legislature’s decision to include bitcoin in the definition of ‘financial instrument’, after the SARS (2018) had previously indicated that it regards bitcoin as an intangible asset.

The proposed amendment, read with section 22(1)(a) of the Act, would lead to the inclusion in taxable income of the cost price of bitcoin held as trading stock at the end of the year of assessment. The cost price of bitcoin which is on hand at the beginning of the year of assessment may be deductible in the determination of taxable income in terms of section 22(2) of the Act.

In terms of section 22(3)(a)(i) of the Act, the cost price of trading stock, for section 22 of the Act, is the cost incurred by the taxpayer in acquiring the trading stock, plus any further costs incurred to bring the trading stock into its existing condition and location, excluding any exchange differences. It appears (based on the wording of section 22(3)(a)(i) of the Act) that where bitcoin is purchased with conventional currency (that is, rand) on a bitcoin exchange, the cost price may be the rand amount paid for bitcoin, plus the transaction fees charged by the exchange. Where bitcoin is acquired in exchange for goods, the cost price may be the market value of the goods

exchanged. The uncertainty regarding the cost price of bitcoin acquired through the process of bitcoin mining or received in exchange for services, for the purposes of applying section 22 of the Act, is addressed in Chapter 5.

In summary, proceeds from the disposal of bitcoin held as trading stock, as well as the market value of bitcoin held as closing stock, may be included in determining taxable income. Should the market value of closing stock diminish below its actual cost, an unrealised loss may effectively be deducted for normal tax purposes. However, if the proposed amendment to the definition of 'financial instrument' in section 1(1) of the Act is enacted, the value of closing stock to include in taxable income may merely be the cost, and unrealised losses due to adverse bitcoin price fluctuations may not be taken into account in determining taxable income. Expenditure incurred in the acquisition of bitcoin held as trading stock could be deductible in terms of section 11(a) of the Act, if it is acquired for trade purposes and in the production of income. The value of bitcoin held as opening stock (or the cost thereof, if the proposed amendment to the definition of 'financial instrument' in section 1(1) of the Act is enacted) could also be deductible for normal tax purposes.

The normal tax treatment of bitcoin gains and losses, where bitcoin is held as a capital asset, is discussed next.

3.3.2 The normal tax treatment of bitcoin gains and losses where bitcoin is held as a capital asset

Bitcoin may constitute a capital asset where the taxpayer obtains bitcoin as a long-term investment (Berger, 2016:54). The Eighth Schedule will apply if bitcoin is held as a capital asset (Berger, 2016:54; SARS, 2018). Section 26A of the Act provides that the taxable capital gain of a person, as determined in terms of the Eighth Schedule, must be included in the taxpayer's taxable income in a year of assessment. An assessed capital loss may be carried forward to the following year of assessment. For a capital gain or loss to be determined in terms of the Eighth Schedule, the following four requirements must be met (Stiglingh *et al.*, 2018:542):

- There must be an asset.
- There must be an actual or deemed disposal.
- The base cost of the asset must be determined.

- The proceeds from the disposal of the asset must be determined.

These requirements and their application to bitcoin gains and losses are discussed below.

3.3.2.1 There must be an asset

For a capital gain or loss to be determined in terms of the Eighth Schedule, an ‘asset’ as defined in paragraph 1 of the Eighth Schedule must be present. Paragraph (a) of the definition of ‘asset’ in paragraph 1 of the Eighth Schedule includes “property of whatever nature, whether movable or immovable, corporeal or incorporeal, excluding any currency, but including any coin made mainly from gold or platinum”. The definition of ‘asset’ is so wide that it can essentially include any asset (Stiglingh *et al.*, 2018:547). Therefore, if bitcoin is classified as an asset, rather than as a currency, it may fall within the ambit of the Eighth Schedule.

3.3.2.2 There must be an actual or deemed disposal

“(T)he sale, donation, expropriation, conversion, grant, cession, exchange or any other alienation or transfer of ownership of an asset” constitutes a disposal in terms of paragraph 11(1)(a) of the Eighth Schedule. Consequently, both the sale of bitcoin for conventional currency and the use of bitcoin to purchase goods and services may qualify as a disposal and give rise to a capital gain or loss, if bitcoin is held as a capital asset.

A capital gain or loss can only arise where there has been an actual or deemed disposal (Stiglingh *et al.*, 2018:542). There is no disposal present when an unrealised gain or loss arises. Therefore, there may be no normal tax consequences for unrealised gains and losses arising from bitcoin held as a capital asset, unless there is a deemed disposal in terms of paragraph 12 of the Eighth Schedule.

Paragraph 12 of the Eighth Schedule deems certain events to be disposals, including (in terms of paragraphs 12(2)(c) of the Eighth Schedule) where a capital asset becomes trading stock. In the case of a deemed disposal, the taxpayer will be treated as having disposed of the asset for an amount equal to the market value of the asset at the time of the deemed disposal and to have “immediately reacquired the asset at

an expenditure equal to that market value” in terms of paragraph 12(1) of the Eighth Schedule.

There is also a deemed disposal in terms of paragraph 12(2)(d) of the Eighth Schedule when a personal-use asset becomes a non-personal-use asset or in terms of paragraph 12(2)(3) of the Eighth Schedule where a non-personal-use asset becomes a personal-use asset. Paragraph 53(2) of the Eighth Schedule states that a personal-use asset is “an asset of a natural person or a special trust that is used mainly for purposes other than the carrying on of a trade”. Berger (2016:54) submitted that where an individual obtains bitcoin to purchase goods and services for personal use, bitcoin may qualify as a personal-use asset. Capital gains and losses resulting from the disposal of personal-use assets are disregarded in terms of paragraph 53 of the Eighth Schedule. In terms of paragraph 53(3)(e) of the Eighth Schedule, personal-use assets do not include financial instruments. Therefore, if the proposed amendment to the definition of ‘financial instrument’ in section 1(1) of the Act is enacted, this could prevent capital gains and losses from the disposal of bitcoin from being disregarded.

3.3.2.3 The base cost of the asset must be determined

In terms of paragraph 20(1)(a) of the Eighth Schedule, the base cost of an asset is “the expenditure actually incurred in respect of the cost of acquisition or creation of that asset”. Therefore, based on paragraph 20(1)(a) of the Eighth Schedule, where bitcoin was acquired on a bitcoin exchange with conventional currency (that is, rand), the base cost may be the rand amount paid for bitcoin plus any fees charged by the exchange. Bitcoin may not only be acquired on a bitcoin exchange; it may also be acquired in terms of a barter transaction (Berger, 2016:78).

Where an asset is acquired in terms of a barter transaction, the base cost of the asset is the market value of the asset given in exchange for the new asset (SARS, 2017:185). Therefore, the base cost of bitcoin acquired in exchange for goods would be the market value of the goods exchanged, as determined in terms of paragraph 31 of the Eighth Schedule. In terms of paragraph 31(g) of the Eighth Schedule, the market value of the goods exchanged is the price which could have been obtained upon a sale of the asset between a willing buyer and a willing seller dealing at arm’s length in an open market.

In addition to bitcoin being acquired in exchange for goods, bitcoin may also be acquired in exchange for services rendered (Berger, 2016:78).

The initial receipt of bitcoin in exchange for services rendered may be included in gross income in terms of paragraph (c) of the definition of 'gross income' in section 1(1) of the Act (Parsons, 2014:9). The amount so included may be the market value of bitcoin received (Berger, 2016:56). The base cost of bitcoin acquired in exchange for services will, in terms of paragraph 20(1)(h)(ii)(dd) of the Eighth Schedule, be the amount that has been included in the taxpayer's gross income as consideration for the services rendered. Accordingly, the base cost in that case is the market value of bitcoin upon initial receipt thereof. Additionally, specific base cost rules may apply to bitcoin if they constitute identical assets.

Paragraph 32 of the Eighth Schedule makes provision for the base cost of 'identical assets', which are defined as:

a group of similar assets which

(a) if any one of them were disposed of, would realise the same amount regardless of which of them was so disposed of; and

(b) are not able to be individually distinguished apart from any identifying numbers which they may bear.

Units of bitcoin are fungible (Carrick, 2016:2323). Fungibility means that assets are identical to each other and can be perfectly substituted for each other (Koning, 2016). It is, in consequence, clear that units of bitcoin would qualify as identical assets in terms of paragraph 32 of the Eighth Schedule.

Paragraph 32(3)(b) of the Eighth Schedule requires that the base cost of identical assets be determined either by using the first in first out method, or the specific identification method. The weighted average method may only be used for certain types of assets listed in paragraph 32(3A) of the Eighth Schedule. This list includes financial instruments listed on a recognised exchange. It has been proposed that the definition of 'financial instrument' in section 1(1) of the Act be amended to include any cryptocurrency (National Treasury (South Africa), 2018:3). As bitcoin is not currently traded on a 'recognised exchange' (as defined in paragraph 1 of the Eighth Schedule),

the use of the weighted average method will not be allowed in determining the base cost of bitcoin, despite the proposed amendment. The base cost of bitcoin sold may therefore be determined using either the first in first out or specific identification method. However, a unit of bitcoin does not always have to be sold in its entirety.

Paragraph 33 of the Eighth Schedule provides that where only a part of an asset is disposed of, the base cost of the part disposed of will be a pro-rata portion of the allowable expenditure of the entire asset, based on the market value immediately prior to disposal. The base cost of the remaining part of the asset will be reduced by the pro-rata portion attributable to the part disposed of. Bitcoin is technically infinitely divisible but is currently generally divided to eight decimal places. This smaller unit of bitcoin is known as a satoshi (Brandvold, Molnár, Vagstad & Valstad, 2015:23). Paragraph 33 of the Eighth Schedule could therefore be taken into account in determining the base cost of bitcoin, where a unit of bitcoin is not sold in its entirety.

3.3.2.4 The proceeds from the disposal of the asset must be determined

In terms of paragraph 35 of the Eighth Schedule,

the proceeds from the disposal of an asset by a person are equal to the amount received by or accrued to, or which is treated as having been received by, or accrued to or in favour of, that person in respect of that disposal.

The meaning of the word ‘amount’ is the same as in the definition of ‘gross income’ in section 1(1) of the Act (Stiglingh *et al.*, 2018:590). Additionally, where a capital asset is disposed of in terms of a barter transaction “the proceeds are equal to the market value of the asset received” (SARS, 2017:87). Where bitcoin is disposed of in exchange for goods and services, the proceeds may therefore be the market value of those goods and services, as determined in terms of paragraph 31 of the Eighth Schedule.

Notwithstanding the assertion above, paragraph 42 of the Eighth Schedule provides that the proceeds from the sale of a financial instrument is deemed equal to the base cost thereof, where the financial instrument is disposed of at a capital loss and a similar financial instrument is acquired within a 91-day period (Carr, 2018). Therefore, the capital loss is not taken into account at the time of disposal. Instead, it is added to the

base cost of the financial instrument acquired. Paragraph 42 of the Eighth Schedule may apply to certain bitcoin transactions, if the proposed amendment to the definition of 'financial instrument' in section 1(1) of the Act is enacted (Carr, 2018).

In summary, where bitcoin is held as a capital asset, all four of the requirements of the Eighth Schedule may be present. Therefore, a capital gain or loss resulting from bitcoin price fluctuations may be determined as the difference between the proceeds from the disposal of bitcoin and the base cost of bitcoin. The capital gain or loss may be disregarded in terms of paragraph 53(1) of the Eighth Schedule, if bitcoin is held as a personal-use asset. In other cases, the capital gain or loss arising from the disposal of bitcoin is aggregated with the other capital gains and losses of the taxpayer during the year of assessment in terms of paragraph 6 to 8 of the Eighth Schedule.

3.4 Summary and conclusions

Both realised and unrealised gains and losses may arise on units of bitcoin held. The normal tax treatment of bitcoin gains and losses will firstly depend on whether bitcoin is regarded as a functional equivalent to foreign currency or as an asset for normal tax purposes. Section 24I of the Act may be applicable to bitcoin gains and losses only if bitcoin is regarded as a functional equivalent to foreign currency for normal tax purposes. Where bitcoin is regarded as an asset for normal tax purposes, the normal tax treatment of bitcoin gains and losses will depend further on whether bitcoin is held as trading stock or as a capital asset. The alternative normal tax treatments of bitcoin gains and losses may accordingly be summarised as set out in Table 3.1 and Table 3.2.

Table 3.1: Normal tax treatment of bitcoin gains and losses in terms of section 24I of the Act

	Bitcoin held as trading stock	Bitcoin held as a capital asset¹
Realised gains	The gain or loss which may be included in or deducted from the income of the taxpayer is the amount in bitcoin multiplied by the difference between the ruling exchange rate at which the bitcoin was disposed of during the year of assessment and the ruling exchange rate on the date that the bitcoin was acquired (or the ruling exchange rate on the last day of the previous year of assessment, if the bitcoin was acquired in a previous year of assessment).	
Realised losses		
Unrealised gains	The gain or loss which may be included in or deducted from the income of the taxpayer is the amount in bitcoin multiplied by the difference between the ruling exchange rate on the last day of the year of assessment and the ruling exchange rate on the date the bitcoin was acquired (or the ruling exchange rate on the last day of the previous year of assessment, if the bitcoin was acquired in a previous year of assessment).	
Unrealised losses		

¹ For a taxpayer who is a natural person, section 24I of the Act may not be applicable if units of bitcoin or other foreign currency are not held as trading stock.

Table 3.2: Normal tax treatment of bitcoin gains and losses if section 24I of the Act is not applicable thereto

	Bitcoin held as trading stock	Bitcoin held as a capital asset
Realised gains	The amount received in exchange for bitcoin may be included in gross income, while the cost of acquiring bitcoin may be deductible in terms of the general deduction formula, or in terms of section 22(2) of the Act if bitcoin was acquired in a previous year of assessment. This effectively results in the inclusion of the net realised gain or loss in the taxable income of the taxpayer.	A capital gain or loss may be calculated as the proceeds from the disposal of bitcoin less the base cost of bitcoin sold. The capital gains and losses of the taxpayer are aggregated. A net capital gain will be included in taxable income at the applicable inclusion rate in terms of section 26A of the Act. If an assessed capital loss arises, this may be carried forward to the following year of assessment.
Realised losses		
Unrealised gains	There may be no normal tax consequences, as there is no amount accrued to or received by the taxpayer.	There may be no normal tax consequences, except in the case of a deemed disposal. Where a deemed disposal occurs, a capital gain or loss may be calculated as the market value on the date of the deemed disposal less the base cost of bitcoin sold.
Unrealised losses	An unrealised loss due to an adverse fluctuation in the price of bitcoin may effectively decrease taxable income through the application of section 22(1)(a) of the Act. However, section 22(1)(a) of the Act does not allow a taxpayer to adjust the value of financial instruments held as trading stock based on adverse price fluctuations. There may therefore be no normal tax consequences for unrealised bitcoin losses if the proposed amendment to the definition of 'financial instrument' in section 1(1) of the Act is enacted.	

The alternative normal tax treatments summarised in this chapter are evaluated in terms of simplicity in Chapter 5, to determine whether the application of section 24I of the Act to bitcoin gains and losses would enhance or reduce simplicity. The tax treatment of a transaction may be simplified when it is closely aligned to the accounting treatment for that transaction (De Zilva, 2005:67). For that reason, Chapter 4 firstly

considers whether the normal tax treatment of bitcoin gains and losses in terms of section 24I of the Act is aligned to the generally accepted accounting treatment thereof.

CHAPTER 4**THE ACCOUNTING TREATMENT OF BITCOIN GAINS AND LOSSES**

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CHAPTER 4

THE ACCOUNTING TREATMENT OF BITCOIN GAINS AND LOSSES

4.1 Introduction

The normal tax treatment of bitcoin gains and losses in terms of section 24I of the Act was discussed in the previous chapter. One of the objectives of section 24I of the Act was to align the normal tax treatment of foreign exchange gains and losses to generally accepted accounting practice (National Treasury (South Africa), 1993:23). This would then simplify the normal tax treatment of foreign currency gains and losses (De Mare, 1995), as the tax treatment of a transaction may be simplified when it is closely aligned to the accounting treatment for that transaction (De Zilva, 2005:67). This is in the case of taxpayers who are required to comply with generally accepted accounting practice when compiling annual financial statements.

Regulation 27 to the Companies Act No.71 of 2008 prescribes that the financial statements of for-profit companies with a public interest score above 100 must comply with either the IFRSs or the *International Financial Reporting Standards for Small and Medium-sized Entities* (South Africa, 2008). Therefore, it is clear that generally accepted accounting practice, in the South African context, refers to accounting practice which is in accordance with IFRSs.

This chapter investigates the generally accepted accounting treatment of bitcoin gains and losses under the IFRSs. It is then determined whether this accounting treatment is aligned to the normal tax treatment of bitcoin gains and losses in terms of section 24I of the Act.

4.2 The generally accepted accounting treatment of bitcoin gains and losses

The IFRSs are issued by the International Accounting Standards Board (IASB) (International Accounting Standards Board [IASB], 2016a:par.1). The IASB has not issued any specific financial reporting standards or guidance regarding the accounting for bitcoin transactions (Kam, 2017:1; Ram, 2015:2; Ram *et al.*, 2016:2; Tan & Low, 2017:220; Venter, 2016:3). According to International Accounting Standard (IAS) 8 *Accounting Policies, Changes in Accounting Estimates and Errors* (IAS 8), where there is no standard that specifically applies to a transaction, management must apply an

accounting policy which results in information which is relevant (IASB, 2003a:par.10a) and reliable (IASB, 2003a:par.10b).

Information is relevant when it can make a difference to the economic decisions of the users of financial statements (IASB, 2018:par.2.4). Information is also relevant if it will help users to make new predictions, and confirm or correct prior predictions, or both (IASB, 2018:par.2.7).

Information is reliable when it is a faithful representation of the financial position and financial performance of the entity (IASB, 2003a:par.10b(i)). A faithful representation is complete, neutral and free from error (IASB, 2018:par.2.13). Furthermore, reliable information reflects the economic substance of transactions, rather than merely the legal form (IASB, 2003a:par.10b(ii)). To be reliable, the financial statements must also adhere to the principle of prudence (IASB, 2003a:par.10(b)(iv)). Prudence requires that management be careful and mindful when arriving at the figures presented (Cooper, 2015:2). Prudence does not necessarily require conservative accounting, as a conservative bias would not be neutral and consequently would not be a faithful representation (Cooper, 2015:2).

In selecting and applying an accounting policy which results in a faithful representation of relevant and reliable information, management must first refer to and consider the applicability of the existing IFRSs dealing with similar or related transactions. Secondly, management must consider the definitions, recognition criteria and measurement concepts in the *Conceptual Framework for Financial Reporting* (Conceptual Framework) (IASB, 2003a:par.11). Accordingly, this approach is followed to determine the generally accepted accounting treatment for bitcoin.

4.2.1 Consideration of existing IFRSs

The management of an entity must, in the absence of a standard that specifically applies to a transaction, consider the IFRSs dealing with similar or related transactions (IASB, 2003a:par.11). Therefore, existing IFRSs are evaluated to determine whether they may be applied to account for bitcoin gains and losses, to produce information which is both relevant and reliable.

4.2.1.1 IAS 21 *The Effects of Changes in Foreign Exchange Rates*

IAS 21 *The Effect of Changes in Foreign Exchange Rates* (IAS 21) is applicable to transactions and balances in foreign currencies (IASB, 2003b:par.3(a)). IAS 21 essentially requires that foreign currency monetary items be revalued based on closing rates at the end of each reporting period (IASB, 2003b:par.23(a)). 'Foreign currency' is defined as a currency other than the functional currency of an entity (IASB, 2003b:par.8), while 'monetary items' are "units of currency held and assets and liabilities to be received or paid in a fixed or determinable number of units of currency" (IASB, 2003b:par.8). It was submitted in Chapter 2 that bitcoin may be regarded as a functional equivalent of foreign currency in terms of a functional equivalence approach to establish technological neutrality in taxation. As technological neutrality is a legal principle, rather than an accounting principle, it needs to be determined whether bitcoin may be regarded as a currency for accounting purposes. This may provide guidance on whether IAS 21 would qualify as an IFRS dealing with similar or related transactions to bitcoin gains and losses.

The term 'currency' is not defined for the purposes of the IFRSs (Venter, 2016:9). IAS 32 *Financial Instruments: Presentation* (IAS 32) uses the terms 'cash' and 'currency' interchangeably (IASB, 2003c:par.AG3). If bitcoin is categorised as a cash or cash equivalent, it may be accounted for under IAS 21 (Venter, 2016:20). 'Cash' is defined in IAS 7 *Statement of Cash Flows* as "cash on hand and demand deposits" (IASB, 2016b:par.6). 'Cash equivalents' are defined as "short-term, highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value" (IASB, 2016b:par.6). It appears that the requirements of the definition of 'cash equivalent' suggest that an investment is only considered equivalent to cash if it is subject to an insignificant risk of changes in value. The price of bitcoin is highly volatile (Carrick, 2016:2328). Therefore, it follows that bitcoin is not similar to cash for the purposes of the application of the IFRSs, which precludes the application of IAS 21 to bitcoin gains and losses.

The fact that bitcoin is not legal tender and is not issued by a central bank may also preclude it from being considered similar to currency for the purposes of the IFRSs (Kam, 2017:1), and invalidate the application of IAS 21 to bitcoin gains and losses (Ram, 2015:14; Venter, 2016:8). Furthermore, because the value of bitcoin fluctuates

in relation to conventional currencies, it would not constitute a monetary item as it does not represent an asset which will be received in a fixed number of units of currency. Therefore, it appears as though IAS 21 would not qualify as an *International Financial Reporting Standard* (IFRS) dealing with similar or related transactions to bitcoin gains and losses.

4.2.1.2 IAS 32 *Financial Instruments: Presentation* and IFRS 9 *Financial Instruments*

It has been proposed that the definition of 'financial instrument' in section 1(1) of the Act be amended to include any cryptocurrency (National Treasury (South Africa), 2018:3). Bitcoin may be regarded as a financial asset in terms paragraphs (a) and (c) of the definition of 'financial asset' in IAS 32 *Financial Instruments: Presentation* (IAS 32), if it constitutes either cash or a contractual right to receive cash or another financial asset from another entity (IASB, 2003c:par.11). It was noted in Chapter 4.2.1.1 that bitcoin cannot be regarded as cash for the purposes of the IFRSs. Bitcoin does not meet the definition of 'financial asset', as it does not give rise to a contractual relationship between two parties. Bitcoin also does not meet the definition of 'financial instrument' in IAS 32 paragraph 11, as it does not give rise to a contractual relationship (Berchowitz, 2017; Kam, 2017:1; Ram, 2015:14; Venter, 2016:9). IAS 32 (and by extension, IFRS 9 *Financial instruments*) may therefore not be regarded as an IFRS dealing with similar or related transactions to bitcoin gains and losses.

4.2.1.3 IAS 16 *Property, Plant and Equipment* and IAS 40 *Investment Property*

Bitcoin is not regarded as a currency for the purpose of IFRSs and must consequently be recognised and measured as another kind of asset (Kam, 2017; Venter, 2016). IAS 16 *Property, Plant and Equipment* (IAS 16) is only applicable to tangible items (IASB, 2003d:par.6). Bitcoin is intangible, and for that reason IAS 16 cannot be applied to bitcoin (Kam, 2017:1; Ram, 2015:14; Venter, 2016:12). Furthermore, bitcoin does not lead to the production of goods and services, which may also invalidate the application of IAS 16 (Tan & Low, 2017:220). IAS 40 *Investment Property* (IAS 40) is applicable only to land and buildings (IASB, 2003e:par.5) and for that reason also cannot be applied to bitcoin (Kam, 2017:1; Venter, 2016:12). Therefore, IAS 16 and

IAS 40 are not regarded as dealing with similar or related transactions to bitcoin gains and losses.

4.2.1.4 IAS 38 *Intangible Assets*

The SARS (2018) indicated in April 2018 that it regarded bitcoin as an intangible asset for normal tax purposes. IAS 38 *Intangible assets* (IAS 38) defines an ‘intangible asset’ as “an identifiable non-monetary asset without physical substance” (IASB, 2004:par.8). IAS 38 defines an ‘asset’ as “a resource controlled by an entity as a result of past events; and from which future economic benefits are expected to flow to the entity” (IASB, 2004:par.8). Bitcoin meets the definition of an ‘asset’ as the entity may exchange bitcoin for cash, goods or services representing economic benefits (Venter, 2016:13). Monetary assets are “money held and assets to be received in fixed or determinable amounts of money” (IASB, 2004:par.8). ‘Money’ is not defined for the purpose of the IFRSs, but it is submitted that bitcoin is non-monetary from an accounting perspective, as it is not cash or currency for the purpose of the IFRSs. An asset is identifiable if it can be separated from the entity and sold (IASB, 2004:par.12(a)). Bitcoin is identifiable as units of bitcoin can be sold on a bitcoin exchange (Venter, 2016:13). Bitcoin does not have physical substance, as it is digital (Spano, 2014:13; Venter, 2016:13).

Bitcoin appears to meet all the requirements of the definition of ‘intangible asset’ (Kam, 2017:1; Venter, 2016:13). Intangible assets are, however, generally used to generate revenue from the entity’s ordinary course of business, which is different from the use of bitcoin as a medium of exchange or as an investment vehicle (Kam, 2017:2; Tan & Low, 2017:220). The IFRSs make a distinction between tangible assets held for investment purposes and tangible assets held for other purposes, as evidenced by the distinction between IAS 16 and IAS 40 (Venter, 2016:15). Conversely, IAS 38 does not distinguish between intangible assets held for investment purposes and other intangible assets. Therefore, the application of IAS 38 to bitcoin may not provide users with relevant and useful information (Berchowitz, 2017; Venter, 2016:13).

4.2.1.5 IAS 2 *Inventories*

Assets “held for sale in the ordinary course of business” are included in the definition of ‘inventory’ in IAS 2 *Inventories* (IAS 2) (IASB, 2003f:par.6(a)). Where bitcoin is held by an entity for the purpose of sale, it may therefore fall within the scope of IAS 2 (Kam, 2017:1; Spano, 2014:30).

IAS 2 requires that inventory be measured at whichever is the lower between cost and net realisable value (IASB, 2003f:par.9). Net realisable value is “the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale” (IASB, 2003f:par.6). The value of bitcoin is highly volatile (Carrick, 2016:2328). Consequently, measuring bitcoin at the lower of cost and net realisable value may not result in relevant information for the users of financial statements (Venter, 2016:16). In addition, bitcoin held as an investment or as a means of paying for goods and services will not meet the definition of ‘inventory’ (Ram, 2015:14; Venter, 2016:13).

As there does not appear to be an IFRS dealing with a similar or related transaction to bitcoin which will result in relevant and reliable information, the generally accepted accounting treatment for bitcoin may be based on the definitions, recognition criteria and measurement concepts of the Conceptual Framework (Tan & Low, 2017:221).

4.2.2 Generally accepted accounting treatment in terms of the Conceptual Framework

The Conceptual Framework defines an ‘asset’ as “a present economic resource controlled by the entity as a result of past events” (IASB, 2018:par.4.3). Bitcoin would meet the definition of an ‘asset’ (Venter, 2016:8). Bitcoin should therefore be recognised as an asset when the entity obtains control over the bitcoin, which would generally be when it is acquired (Ram, 2015:32,41).

Assets may be recognised at historical cost upon acquisition (IASB, 2018:par.6.5), but may subsequently also be measured at fair value, value in use or current cost (IASB, 2018:par.6.11). There has been a fundamental shift in accounting practice from a historical cost basis towards fair value accounting (Whittington, 2008:140).

A measurement at historical cost precludes the recognition of unrealised gains (Ram, 2015:32). Recognising gains only when they are realised is consistent with the principle of prudence (Ram, 2015:33). Measurement at historical cost would, however, not prevent the recognition of unrealised losses, as assets measured under a historic cost model are generally tested for impairment (for example, IAS 16 and IAS 38) or written down to net realisable value (for example, IAS 2). As cost is a historical measurement, it does not provide the users of the financial statements with current information (Venter, 2016:16). Therefore, measuring bitcoin at historical cost may undermine the fundamental qualitative characteristic of relevance, especially as the price of bitcoin is highly volatile.

A correspondence analysis examining the views of 40 accounting experts revealed that the use of a historical cost model to account for bitcoin may be appropriate in certain circumstances based on the business model of the entity, but that fair value is the preferred normative measurement base for bitcoin (Ram, 2015:2). Fair value is generally a better portrayal of economic reality (Ram, 2015:36). Fair value is also a more relevant measure than historic cost where the value of an asset is sensitive to market factors and other risks, which suggests that it may be the more appropriate measurement basis for bitcoin (Venter, 2016:17).

The Institute of Chartered Accountants in England and Wales (2010:5) holds the view that fair value is a more appropriate measurement base when assets are traded to profit from changes in market prices. This view is in line with the fact that the inventories held by commodity brokers are excluded from the scope of IAS 2 and instead are measured at fair value less cost to sell, as such inventories are “principally acquired with the purpose of ... generating a profit from fluctuations in price ...” (IASB, 2003f:par.3(b), par.5). As bitcoin does not generate income apart from profits due to bitcoin price fluctuations, it follows that fair value is the appropriate measurement base for bitcoin held as trading stock.

Fair value is also the most appropriate measurement base for bitcoin held for speculative or investment purposes (Berchowitz, 2017; Kam, 2017:2; Ram, 2015:34; Venter, 2016:18), as that is the value that investors would be able to realise from their investment (Berchowitz, 2017). Furthermore, bitcoin held for the purpose of purchasing goods and services should also be measured at fair value (Berchowitz, 2017; Kam,

2017:2; Ram, 2015:34; Venter, 2016:18), as that is the value that the entity will be able to transact in exchange for other goods and services (Berchowitz, 2017). It would therefore appear that the generally accepted accounting treatment for bitcoin may be to recognise bitcoin as an asset, measured at fair value (Berchowitz, 2017; Kam, 2017:2; Venter, 2016:18).

IFRS 13 *Fair value measurement* (IFRS 13) determines that the fair value of an asset is the price that would be received to sell the asset in an orderly transaction between market participants at the measurement date under current market conditions (IASB, 2011:par.9, par.15). The fair value is the selling price in the principal market for the asset, or, in the absence of a principal market, the most advantageous market for that asset (IASB, 2011:par.16). Bitcoin is actively traded on a market in the form of bitcoin exchanges (Brandvold *et al.*, 2015:18). Therefore, the fair value of bitcoin may be the quoted price on the principal or most advantageous bitcoin exchange (hereafter referred to as the exchange quoted price).

If bitcoin is measured at fair value, the bitcoin held by an entity at the end of a financial year will be revalued on the last day of the financial year, resulting in unrealised gains or losses (Spano, 2014:29). When bitcoin is sold or exchanged for goods and services, the realised gain or loss recognised on the sale or exchange of the bitcoin will be based on the last recorded fair value of the bitcoin (Spano, 2014:29). The question arises of how these realised and unrealised gains or losses resulting from bitcoin price fluctuations should be accounted for.

The definition of 'income' includes increases in assets, or decreases in liabilities, that result in increases in equity (IASB, 2018:4.68). It follows that income includes both realised and unrealised gains (IASB, 2010:par.4.29, par.4.31). The definition of 'expense' includes decreases in assets, or increases in liabilities, that result in decreases in equity (IASB, 2018:4.69). Therefore, both realised and unrealised losses may be recognised as expenses (IASB, 2010:par.4.33, par.4.35). It follows that an income or expense may be recognised when there is an increase or decrease in the value of bitcoin.

All items of income or expense are recognised in profit or loss, except those items of income or expense which are recognised in other comprehensive income (Association

of Chartered Certified Accountants, 2018). The purpose of other comprehensive income is to prevent income-relevant items that possess low reliability from distorting the profit and loss figure, which is widely used in ratios and common valuation techniques (Association of Chartered Certified Accountants, 2018). As bitcoin is traded in an active market on several exchanges (Brandvold *et al.*, 2015:18), it follows that bitcoin gains and losses can be measured reliably. As bitcoin gains and losses can be measured reliably, they should be included in profit or loss to prevent the profit or loss figure from being incomplete. Including these gains and losses in profit or loss would provide the most relevant and useful information to the users of financial statements (Berchowit, 2017; Venter, 2016:18).

In summary, it is submitted that the generally accepted accounting treatment for bitcoin may be to measure bitcoin at fair value, with the resulting realised and unrealised bitcoin gains and losses being recognised in profit and loss. The gain or loss which may be recognised in profit or loss is the amount in bitcoin multiplied by the difference between the exchange quoted price on the date that bitcoin was acquired (or the exchange quoted price on the last day of the previous financial year, if bitcoin was acquired in a previous financial year) and the exchange quoted price:

- i) at which the bitcoin was disposed of during the financial year, or
- ii) on the last day of the financial year, if the bitcoin has not been disposed of.

In the next section, it is determined whether the normal tax treatment of bitcoin gains and losses in terms of section 24I of the Act, as summarised in the preceding chapter, is aligned to the generally accepted accounting treatment of bitcoin gains and losses as set out in the paragraphs above.

4.3 Comparison of the normal tax treatment of bitcoin gains and losses in terms of section 24I of the Act to the generally accepted accounting treatment thereof

A comparison between the generally accepted accounting treatment of bitcoin gains and losses (discussed in Chapter 4.2) and the normal tax treatment thereof in terms of section 24I of the Act (discussed in Chapter 3) is shown in Table 4.1

Table 4.1: Comparison between the generally accepted accounting treatment of bitcoin gains and losses and the normal tax treatment thereof in terms of section 24I of the Act

	Generally accepted accounting treatment	Normal tax treatment in terms of section 24I of the Act
Unit of bitcoin acquired during the current financial year/year of assessment	<p>The gain or loss which may be recognised in profit or loss is the amount in bitcoin multiplied by the difference between the exchange quoted price on the date that the bitcoin was acquired and the exchange quoted price:</p> <ul style="list-style-type: none"> i) at which the bitcoin was disposed of during the financial year, or ii) on the last day of the financial year, if the bitcoin has not been disposed of. 	<p>The gain or loss which may be included in or deducted from income will be the amount in bitcoin multiplied by the difference between the ruling exchange rate on the date that the bitcoin was acquired and the ruling exchange rate:</p> <ul style="list-style-type: none"> i) at which the bitcoin was disposed of during the year of assessment, or ii) on the last day of the year of assessment, if the bitcoin has not been disposed of.
Unit of bitcoin acquired during the previous financial year/year of assessment	<p>The gain or loss which may be recognised in profit or loss is the amount in bitcoin multiplied by the difference between the exchange quoted price on the last day of the previous financial year and the exchange quoted price:</p> <ul style="list-style-type: none"> i) at which the bitcoin was disposed of during the financial year, or ii) on the last day of the financial year, if the bitcoin has not been disposed of. 	<p>The gain or loss which may be included in or deducted from income will be the amount in bitcoin multiplied by the difference between the ruling exchange rate on the last day of the previous year of assessment and the ruling exchange rate:</p> <ul style="list-style-type: none"> i) at which the bitcoin was disposed of during the year of assessment, or ii) on the last day of the year of assessment, if the bitcoin has not been disposed of.

It was noted in Chapter 3.2 that the proviso to the definition of ‘ruling exchange rate’ in section 24I(1) of the Act enables the Commissioner to prescribe an alternative rate “if such alternative rate is used for the purposes of financial reporting pursuant to IFRS”. It was recommended in Chapter 3.2 that the Commissioner prescribe the ruling exchange rate to be used to convert bitcoin to rand, which is appropriate for the purposes of IFRSs. Pursuant to IFRS 13, such a rate would need to be reflective of the quoted price on the principal or most advantageous bitcoin exchange.

Therefore, it appears from Table 4.1 that the realised or unrealised bitcoin gain or loss which may be included in or deducted from income in terms of section 24I(3) of the Act may be aligned to the realised or unrealised bitcoin gain or loss included in profit or loss in terms of generally accepted accounting practice.

4.4 Summary and conclusions

Chapter 4 has determined that the application of section 24I of the Act to bitcoin gains and losses would be likely to align the normal tax treatment of these gains and losses to the generally accepted accounting treatment thereof. The application of section 24I of the Act to bitcoin gains and losses may consequently lead to the furtherance of the objectives of section 24I of the Act. This finding also suggests that the application of section 24I of the Act to bitcoin gains and losses may simplify the normal tax treatment of bitcoin gains and losses. A further investigation of whether the application of section 24I of the Act to bitcoin gains and losses would enhance or reduce simplicity in the normal tax treatment of these gains and losses follows in Chapter 5.

CHAPTER 5**SIMPLICITY OF THE NORMAL TAX TREATMENT OF BITCOIN GAINS AND LOSSES**

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CHAPTER 5

SIMPLICITY OF THE NORMAL TAX TREATMENT OF BITCOIN GAINS AND LOSSES

5.1 Introduction

Prior to the introduction of section 24I of the Act, the normal tax treatment of foreign currency gains and losses gave rise to various practical difficulties (SARS, 1999:2). Section 24I of the Act was consequently introduced with the objective of simplifying the normal tax treatment of foreign exchange gains and losses (National Treasury (South Africa), 1993:23). It was submitted in Chapter 2 that bitcoin may be regarded as a functional equivalent of foreign currency. Therefore, the difficulties which previously arose regarding the normal tax treatment of foreign currency gains and losses may also arise in respect of bitcoin gains and losses, if section 24I of the Act is not made applicable to such gains and losses.

The objective of this chapter is to determine whether the application of section 24I of the Act to bitcoin gains and losses would enhance or reduce simplicity in the normal tax treatment thereof. Factors by which to evaluate simplicity in the normal tax treatment of bitcoin gains and losses are firstly established. The two alternative normal tax treatments of bitcoin gains and losses summarised in Chapter 3, either in terms of section 24I of the Act or alternatively when section 24I of the Act is not applied, are then evaluated in terms of the factors identified. A conclusion is drawn on whether the application of section 24I of the Act would enhance or reduce simplicity in the normal tax treatment of bitcoin gains and losses.

5.2 Factors by which to evaluate simplicity in the normal tax treatment of bitcoin gains and losses

Simplicity is the characteristic of a tax which makes the tax easily determinable from ascertainable facts (Surrey & Brannon, 1968), and the tax system easy to understand and easy to be complied with by taxpayers (Kabinga, 2016:10). Simplicity also extends beyond legislation to include tax administration (Kabinga, 2016:10) and reducing the administrative burden of tax (James, 2007:7). The OECD (1998:4) groups “simplicity and certainty” as a broad tax principle in the *Electronic Commerce Taxation Framework Conditions*, stating that

the tax rules should be clear and simple to understand so that taxpayers can anticipate the tax consequences in advance of a transaction, including knowing when, where and how the tax is to be accounted.

The opposite of simplicity is "complexity, complication, difficultness, difficulty" (The Opposite Dictionary, 2018). Consequently, literature on the complexity of tax legislation was drawn upon for this study to establish factors by which to evaluate the simplicity of the normal tax treatment of bitcoin gains and losses. The enforceability of taxation is, however, outside the scope of this study. Accordingly, simplicity is discussed from the perspective of the taxpayer, rather than that of the SARS. McCaffery's (1990) understanding of simplicity in taxation has been selected for this study, as it has previously been employed in addressing complexity in the South African tax system (Muli, 2014). McCaffery (1990) differentiates between three types of tax complexity, namely technical complexity, structural complexity and compliance complexity.

Firstly, technical complexity refers to the ease with which the taxpayer can comprehend tax legislation (McCaffery, 1990:1271). The "pure intellectual difficulty of ascertaining the meaning of tax law" may increase the complexity of tax legislation (McCaffery, 1990:1271). Tax legislation may be complex if the language used to define transactions is difficult for the taxpayer to understand (Piper, 2013; Ulph, 2015:7). Apart from using complicated language, the density and length of provisions, as well as the interdependence between various provisions, may increase the complexity of tax legislation (Katz & Bommarito, 2014:340). Clearly, the mere length of a provision may not always increase complexity, as a lengthier text may allow for the use of simpler language (Vaillancourt, Roy & Lammam, 2015:3). Complexity may be limited by keeping the number of tax rules and their ability to interact and conflict to a minimum (Association of Chartered Certified Accountants, 2015; Oats & Morris, 2015:29). Consequently, factors to consider in evaluating technical complexity include the brevity, readability and comprehensibility of legislation.

Secondly, structural complexity refers to "the difficulties in interpreting and applying rules to economic transactions" (McCaffery, 1990:1272). Tax legislation is structurally complex when the tax payable as a result of an economic transaction cannot be easily predicted by a taxpayer (McCaffery, 1990:1271). Uncertainty may arise where there is

a different tax treatment for economic transactions that the taxpayer regards as identical (Cooper, 1993:424; Ulph, 2015:7). Uncertainty is increased by complex tax legislation that requires a high level of involvement from the judiciary in its interpretation (Association of Chartered Certified Accountants, 2015:6). Structural complexity is also increased when it is necessary to distinguish ‘capital’ from ‘ordinary’ income (McCaffery, 1990:1282).

Finally, compliance complexity occurs where the record keeping required to comply with tax legislation places a high administrative burden on the taxpayer (McCaffery, 1990:1272) or requires an excessive cost for the taxpayer to be compliant (Cooper, 1993:424). The tax treatment of a transaction may also be simplified when it is closely aligned to the accounting treatment for that transaction (De Zilva, 2005:67). This is in the case of taxpayers who are required to comply with generally accepted accounting practice when compiling annual financial statements.

The three types of tax complexity discussed above are considered below in determining whether the application of section 24I of the Act could enhance or reduce simplicity.

5.3 An evaluation of the alternative normal tax treatments of bitcoin gains and losses in terms of simplicity

It has been established that bitcoin gains and losses may be treated either in terms of section 24I of the Act or otherwise in terms of what the SARS (2018) has referred to as the “normal income tax rules”. The two alternative normal tax treatments of bitcoin gains and losses were summarised in Chapter 3. It has further been established how simplicity in taxation, considering technical, structural and compliance complexity, may be evaluated. Simplicity in the two alternative normal tax treatments of bitcoin gains and losses is now evaluated by considering the three types of tax complexity.

5.3.1 Technical complexity

One of the factors to consider when evaluating the technical complexity of tax legislation is the length of provisions, that is, the number of words that provisions contain. Section 24I of the Act compares favourably in length to the combined length of:

- the parts of the definition of ‘gross income’ in section 1(1) which may find application to bitcoin (as discussed in Chapter 3.3.1.1),
- sections 11(a), 23(g) and 22 of the Act, and
- the parts of the Eighth Schedule which may find application to bitcoin held as a capital asset, as discussed in Chapter 3.3.2.

Therefore, it may be simpler for taxpayers to apply section 24I of the Act to bitcoin gains and losses, as opposed to the various provisions which govern the normal tax consequences of gains and losses arising from trading stock and capital assets.

De Koker and Williams (2018:par.17.8A) observed that, even though simplicity was one of the stated objectives of section 24I of the Act, it is “anything but simple” and that “its presentation is nothing short of disastrous, demonstrating, copiously, what is perhaps the greatest of all failings of legal draftsmanship – the use of definitions as the delivery vehicle for substantive provisions”. It is only once the various definitions in section 24I(1) of the Act have been analysed that it becomes clear which exchange differences are to be included in or deducted from taxable income (Olivier, 2003:400).

Furthermore, according to Olivier (2003:400), section 24I of the Act is one of the most complex sections in the Act. This is, in part, because its provisions rely on accounting principles rather than expressing the philosophy of the rest of the Act, and in part because the legislature aimed to deal with a variety of gains and losses in a single section (Olivier, 2003:400). Therefore, the application of section 24I of the Act to bitcoin gains and losses may result in increased technical complexity.

Conversely, technical complexity may be decreased through the application of section 24I of the Act because the taxpayer will be able to determine the gain or loss to include or deduct from taxable income with reference to only one section of the Act. South African taxpayers perceive the South African tax system to be overly complex because of the various normal tax rules that may be applicable to a single economic event or transaction (Muli, 2014:40). The South African tax system is further perceived as being too integrated, and perceived as having too many different rules applicable to different individuals (Muli, 2014:40). Where bitcoin is classified as an asset for normal tax purposes, the gain or loss to be included in or deducted from taxable income

must be determined with reference to various provisions of the Act, as discussed in Chapter 3.3.

Notwithstanding concerns raised by Olivier (2003) and De Koker and Williams (2018) about the complexity of section 24I of the Act, it appears that the application of section 24I of the Act to bitcoin gains and losses may have a negligible effect on technical complexity when compared to the various provisions which have to be considered when section 24I of the Act is not applied. In addition to considering the technical complexity of a provision, structural complexity needs to be evaluated.

5.3.2 Structural complexity

Structural complexity is increased when the taxpayer cannot easily predict the tax payable because of an economic transaction (McCaffery, 1990:1271). Various factors which may lead to uncertainty in the normal tax treatment of bitcoin gains and losses have been identified and are discussed below.

5.3.2.1 Establishing whether bitcoin is held as trading stock

It has been illustrated in Chapter 3.3 that the normal tax treatment of bitcoin gains and losses, where bitcoin is held as an asset, will vary depending on whether bitcoin is held as trading stock or as a capital asset. Furthermore, if section 24I of the Act is applicable to bitcoin gains and losses, it will not apply to natural persons who do not hold any bitcoin as trading stock (refer to Chapter 3.2). Therefore, it is necessary to determine whether bitcoin held by a taxpayer constitutes trading stock.

The term 'trading stock' is defined in section 1(1) of the Act and includes (in paragraph (a) of the definition):

- (i) anything produced, manufactured, constructed, assembled, purchased or in any other manner acquired by a taxpayer for the purposes of manufacture, sale or exchange by the taxpayer or on behalf of the taxpayer;
- (ii) anything the proceeds from the disposal of which forms or will form part of the taxpayer's gross income.

The definition of 'trading stock' is very wide (Wicht, 2016:80). The SARS (2018) has indicated that bitcoin acquired through the process of bitcoin mining will be held as

trading stock until it is disposed of. Parsons (2014:10) has submitted that bitcoin purchased with conventional currency “may be trading stock if the intention is to dispose of them at a profit”.

As paragraph (a)(i) of the definition of ‘trading stock’ includes “anything ... acquired by a taxpayer for the purposes of ... exchange”, it appears that bitcoin obtained in order to exchange it for goods and services may fall within the definition of ‘trading stock’, even when it is not obtained with a profit-making purpose. Conversely, Berger (2016:54) and Wicht (2016:87) have held that where an individual obtains bitcoin to purchase goods and services for personal use, bitcoin may qualify as a personal-use asset. Furthermore, Coelho (2017) has submitted that where the taxpayer acquires bitcoin with the intention of using it for the purchase of goods and services, the gains or losses realised may be capital in nature. This corresponds with the view held by Haupt (2018:50) that bitcoin is held as a capital asset if it is held for use as a medium of exchange. Therefore, it is uncertain whether bitcoin acquired for the purchase of goods and services will be regarded as trading stock, which increases structural complexity.

The provisions of section 24I of the Act will apply to all the foreign currency gains and losses incurred by a natural person, if that natural person holds a single unit of foreign currency as trading stock. For this reason, the uncertainty regarding whether bitcoin is trading stock in certain instances has a lesser effect on structural complexity if section 24I of the Act is applicable.

5.3.2.2 Determining whether the proceeds from the disposal of bitcoin are income or capital in nature

Apart from the fact that bitcoin may be classified as trading stock or as a capital asset based on how it was acquired, it may also be important to determine the intention of the taxpayer in acquiring, holding and disposing of bitcoin (Berger, 2016:50-54). This may determine whether amounts received by or accrued to the taxpayer are income in nature (in which case the proceeds from disposal are included in gross income) or capital in nature (in which case a capital gain or loss is determined in terms of the Eighth Schedule) (Berger, 2016:50,54).

An analysis performed by Ram (2018:214) indicated that it may be “the manner of acquisition as opposed to the reason (intention) for acquisition” which determines the normal tax treatment of bitcoin gains and losses. However, according to the SARS (2018), the determination of whether the amounts relating to bitcoin transactions are revenue or capital in nature should be made under existing case law. The tests that have been applied by the judiciary are guidelines only, as there is no single infallible test to determine whether an amount is income or capital in nature (*CIR v Pick ‘n Pay Employee Share Purchase Trust* (1992) 54 SATC 271 [*Pick ‘n Pay Employee Share Purchase Trust* case], at 276). The main tests employed by the judiciary in distinguishing between receipts and accruals of an income and capital nature include the “fruit versus tree analogy” and the “profit-making scheme” tests (Olivier, 2012:172-174). Owing to the nature of bitcoin, the application of these tests to amounts relating to bitcoin transactions may prove problematic.

In terms of the fruit versus tree analogy, income is what capital produces, or is something in the nature of interest or fruit as opposed to the principal or tree (*Visser v CIR* (1937) 8 SATC 271 [*Visser* case], at 276). According to the *Visser* case, where an amount is received upon the disposal of an income-producing asset (that is, the tree), the amount is of a capital nature. However, where an amount received is the fruit of the tree, such amount is not of a capital nature. Unlike shares, bitcoin does not earn dividends. The sale of bitcoin may be considered analogous to the sale of Kruger Rands (Haupt, 2018:50; Parsons, 2014:10). It was held in ITC 1525 (1991) 54 SATC 209, at 210, that the proceeds from the sale of Kruger Rands were income in nature, as the Kruger Rands had no income-producing capacity. The court held that the only economic utility of the Kruger Rands was to be turned into cash and that the taxpayer would accordingly have had to envisage selling them when they were originally acquired (ITC 1525, at 210). It may be argued, on the same basis, that the gains or losses resulting from bitcoin price fluctuations could only be income in nature, as bitcoin is not income-producing.

However, from the judgments in two other cases concerning Kruger Rands, ITC 1355 (1981) 44 SATC 132 and *CIR v Nel* (1997) 59 SATC 349, bitcoin’s lack of income-producing capacity does not preclude the proceeds from the sale of bitcoin from being capital in nature. The intention of the taxpayer remains paramount in

determining whether an amount relating to a bitcoin transaction is income or capital in nature (Berger, 2016:49; Coelho, 2017:9; Parsons, 2014:9; Wicht, 2016:77). Bitcoin fails to satisfy the fruit versus tree test, which may lead to uncertainty regarding the nature of an amount received or accrued in exchange for bitcoin, thereby increasing structural complexity. Another test that may be applied in determining the nature of an amount received or accrued in exchange for bitcoin is the profit-making scheme test.

The intention of the taxpayer will be considered when applying the profit-making scheme test (Olivier, 2012:175). It was held in *SIR v The Trust Bank of Africa Ltd* (1975) 37 SATC 87 (*The Trust Bank of Africa Ltd* case), at 102, that where the purchase, holding and sale of an asset were intended as steps in a scheme to resell the asset at an enhanced price, there is a 'profit-making scheme' – the proceeds of which would constitute an income accrual. This is opposed to a sale which constitutes the realisation of a capital asset (*The Trust Bank of Africa Ltd* case, at 102).

Determining whether a taxpayer intended to make a profit is exceptionally problematic as intention is subjective (Olivier, 2012:177). For instance, while Coelho (2017:9) has submitted that bitcoin mining would constitute a scheme of profit-making, Parsons (2014:10) has held that bitcoin may be mined for conceivable reasons other than to dispose of it at a profit. Uncertainty may arise if the capital or income nature of gains and losses arising from mined units of bitcoin is dependent on the facts of each case. Thus, structural complexity may be increased. A further complication in establishing the intention with which a particular bitcoin was acquired, held or disposed of is the fact that units of bitcoin are identical to each other, as discussed in Chapter 3.3.2.3.

The intention with which an asset was acquired is not necessarily decisive in determining whether there is a scheme of profit-making, as the intention of the taxpayer could change. In determining whether an amount is income or capital in nature, "the intention of the taxpayer, both at the time of acquiring the asset and at the time of its sale, is of great, and sometimes decisive, importance" (*Elandsheuvel Farming (Edms) Bpk v SBI* (1978) 39 SATC 163, at 181). As held in *CIR v Stott* (1928) 3 SATC 253, at 261, simply deciding to sell an asset previously held as capital does not mean that there was necessarily a change in intention. It must be determined whether the taxpayer had crossed the Rubicon and gone over into a business where the asset is

used as trading stock (*Natal Estates Ltd v SIR* (1975) 37 SATC 193, at 220). Parsons (2014:9) has asserted that bitcoin acquired in exchange for goods and services would in all likelihood not be trading stock upon acquisition (and as a result be capital in nature), but that its disposal may become income in nature based on the manner in which it is held and disposed of by the taxpayer. It is uncertain which steps taken by a taxpayer with regard to bitcoin may be considered a change of intention, which increases structural complexity.

Furthermore, a taxpayer may have more than one intention in relation to an asset. It is the dominant intention of a taxpayer that will determine whether an amount is income or capital in nature (*COT v Levy* (1952) 18 SATC 127 [*Levy case*], at 128). It was held in the *Levy case*, at 136, that a dominant intention exists when the other intention did not operate to a substantial extent on the taxpayer's mind. Where the making of a profit was merely incidental to a taxpayer's dominant intention, the amount may be capital in nature (*Pick 'n Pay Employee Share Purchase Trust case*, at 277). However, it was held, in *Overseas Trust Corporation Ltd v CIR* (1926) 2 SATC 71, at 78-79, that where the taxpayer had alternative intentions, one of which being to secure a profit through reselling an asset, the amount is income in nature.

A profit-making intention may, however, be assumed (Coelho, 2017:9) given the volatility of bitcoin prices and its use as a speculative investment (Baek & Elbeck, 2015). It may be argued that any taxpayer could reasonably expect that the value of bitcoin may increase. It was held, in *African Life Investment Corporation (Pty) Ltd v SIR* (1969) 31 SATC 163 (*African Life Investment Corporation case*), at 251, that the proceeds from the sale of shares was income in nature as there was more than "a mere hope or expectation" that the shares would increase in value, given the rising trend of the stock market. Therefore, bitcoin gains may be considered income in nature, based on the *ratio decidendi* of the *African Life Investment Corporation case* (Coelho, 2017:9). Conversely, in the recent case of *CSARS v Capstone 556 (Pty) Ltd* 78 SATC 231, at 238, Van der Merwe AJA remarked that "virtually every capital asset is purchased in the hope and anticipation that it will increase in value and in contemplation of the possibility that it may in future be sold at a profit". Determining whether a gain resulting from bitcoin price fluctuations was merely incidental or a

secondary intention of the taxpayer may prove to be challenging and may increase structural complexity.

Prior to the introduction of section 24I of the Act, determining whether a foreign currency gain or loss was income or capital in nature was often a matter of controversy (Meyerowitz, 1987:121). Determining whether proceeds received or accrued in respect of bitcoin are income or capital in nature may be equally controversial, as illustrated in the preceding paragraphs, and may give rise to uncertainties which increase structural complexity. Section 24I(3) of the Act includes foreign currency gains or losses in taxable income regardless of whether they are income or capital in nature (National Treasury (South Africa), 1993:3). Therefore, the application of section 24I of the Act to bitcoin gains and losses could decrease structural complexity, as it would not be necessary to determine whether an amount in respect of a bitcoin transaction is income or capital in nature. The application of section 24I of the Act to bitcoin gains and losses may also enhance uniformity in the normal tax treatment of bitcoin gains and losses.

5.3.2.3 Different normal tax consequences of unrealised gains and unrealised losses

Structural complexity is increased where similar economic transactions give rise to different tax consequences (McCaffery, 1990:1272). The normal tax treatment of unrealised bitcoin gains may differ from that of unrealised bitcoin losses, if section 24I of the Act is not applicable to bitcoin held as trading stock. An unrealised appreciation in the value of an asset does not constitute an amount 'received by' or 'accrued to' as defined by the judiciary, and for that reason cannot be included in gross income (Stiglingh *et al.*, 2018:36). However, unrealised losses resulting from adverse bitcoin price fluctuations may effectively decrease taxable income where bitcoin is held as trading stock, as discussed in Chapter 3.3.1.3.

Section 24I of the Act provides for a similar normal tax treatment of unrealised gains and unrealised losses, as illustrated in Table 3.1. Therefore, the application of section 24I of the Act may lead to uniformity in the normal tax treatment of unrealised gains and unrealised losses resulting from bitcoin price fluctuations, which may decrease structural complexity.

The enactment of the proposed amendment to the definition of 'financial instrument' in section 1(1) of the Act to include any cryptocurrency could also establish uniformity in the normal tax treatment of unrealised gains and unrealised losses resulting from bitcoin price fluctuations. This is because classifying bitcoin as a financial instrument will prevent taxpayers from decreasing the cost price of bitcoin held as closing stock with decreases in market value due to adverse price fluctuations, as discussed in Chapter 3.3.1.3. In that case, the application of section 24I of the Act to bitcoin gains and losses would not contribute to a more uniform normal tax treatment and would therefore not increase simplicity in this regard. However, the application of section 24I of the Act could still increase simplicity by addressing uncertainties with regard to the tax anomaly which may occur if the various "normal income tax rules" referred to by the SARS (2018) are applied.

5.3.2.4 Tax anomaly arising where the taxpayer holds bitcoin as trading stock

It was noted in Chapter 3.3.1.1 that the proceeds from the disposal of bitcoin held as trading stock may be included in gross income. The initial receipt of bitcoin in exchange for goods transferred or services rendered, or of bitcoin generated through bitcoin mining, may give rise to an immediate accrual or receipt, which may also be included in gross income (Coelho, 2017:8-9; Parsons, 2014:7-8; SARS, 2018). A tax anomaly may therefore arise, as both the initial receipt as well as the subsequent disposal of bitcoin held as trading stock would meet the requirements for inclusion in gross income. This is illustrated by the following example, which assumes that a single market rate for bitcoin is determinable.

A taxpayer, with a year of assessment ending on 28 February 2018, renders services to a customer for one bitcoin on 25 September 2017, when the market rate of one bitcoin is equal to R55 652. The taxpayer incurs deductible expenses of R46 380 in production of this income. The taxpayer has accepted the bitcoin as payment with the intention to exchange the bitcoin for rand in the short term to realise speculative profits. The bitcoin is therefore regarded as trading stock *ab initio*. The taxpayer exchanges the bitcoin for R127 451 on 26 February 2018. Assume for this example that no transaction fees have been charged on the exchange of the bitcoin for rand. Therefore, the taxpayer has a net economic gain of R81 071 (R127 451 – R46 380).

The amount of R55 652 may be included in the taxpayer's gross income for the 2018 year of assessment, as it meets the general definition of gross income in section 1(1) of the Act. The taxpayer may be allowed to claim deductions of R46 380 in terms of section 11(a) of the Act. The proceeds on the disposal of the bitcoin of R127 451 may be included in gross income in terms of the general definition of gross income in section 1(1). As illustrated in the calculation below, the taxpayer will therefore have been subject to income tax on R136 723, whereas his net economic gain was R81 071. The difference of R55 652 represents his gross income from the original transaction, which has effectively been included in gross income twice.

	Rand
Gross income: services rendered	55 652
Gross income: sale of trading stock	127 451
Section 11(a) deduction	(46 380)
Taxable income	136 723

One possible solution to this tax anomaly would be to treat bitcoin acquired in exchange for services or acquired through bitcoin mining as acquired for no consideration. The cost price of trading stock acquired "for no consideration or for a consideration which is not measurable in terms of money", for the purposes of section 22 of the Act, is deemed to be the market value on the date that the trading stock was acquired (in terms of section 22(4) of the Act). In practice, the SARS allows the market value at the date of acquisition of trading stock acquired for no consideration as part of the deduction of opening stock in terms of section 22(2)(b) of the Act (Stiglingh *et al.*, 2018:438). This would rectify the anomaly as follows:

	Rand
Gross income: services rendered	55 652
Gross income: sale of trading stock	127 451
Section 11(a) deduction	(46 380)
Section 22(2)(b) deduction	(55 652)
Taxable income	81 071

However, the fact that consideration in the form of services is specifically excluded from the definition of 'consideration' in paragraph 1 of the Seventh Schedule to the Act, suggests that services are generally considered to be a form of consideration.

Therefore, it appears to be unlikely that bitcoin acquired in exchange for services or generated through the process of bitcoin mining can be deemed to be acquired for no consideration. This tax anomaly would not arise if the bitcoin was held as a capital asset, due to the working of paragraph 20(1)(h)(ii)(dd), as described in Chapter 3.3.2.3.

A tax anomaly may also arise where bitcoin is acquired in exchange for services or acquired through bitcoin mining in the current year of assessment and disposed of in a subsequent year of assessment. Assume that the taxpayer in the example discussed above exchanged the bitcoin for R93 853 on 9 April 2018 (instead of exchanging it on 26 February 2018 as previously discussed). Therefore, the taxpayer has a net economic gain of R47 473 (R93 853 – R46 380).

The bitcoin may in that case constitute trading stock held and not disposed of by the taxpayer at the end of the 2018 year of assessment, and the cost price is consequently included in the determination of taxable income in terms of section 22(1)(a) of the Act. In terms of section 22(3) of the Act, the cost price to be so included is arguably the expenditure incurred of R46 380, which was deducted in terms of section 11(a).

In the 2019 year of assessment, the taxpayer may claim a deduction for opening stock of R46 380 in terms of section 22(2)(a) of the Act. The proceeds on the disposal of the bitcoin of R93 853 will be included in gross income in terms of the general definition of gross income in section 1(1). As illustrated in the calculation below, the taxpayer will therefore have been subject to income tax on R103 125 (R55 652 + R47 473), whereas his net economic gain was R47 473. The difference of R55 652 represents his gross income from the original transaction, which has effectively been subject to normal tax in both the 2018 and 2019 years of assessment.

	2018 year of assessment Rand	2019 year of assessment Rand
Gross income	55 652	93 853
Section 11(a) deduction	(46 380)	-
Section 22(1)(a) closing stock	46 380	
Section 22(2)(a) opening stock		(46 380)
Taxable income	55 652	47 473

The example above also illustrates that the normal tax treatment suggested by SARS (2018) may lead to an anomalous application of section 22(1) of the Act. As illustrated, section 22(1)(a) of the Act includes the value of trading stock held and not sold by the end of the year of assessment in the determination of taxable income. The purpose of this inclusion is to address the mismatch which would occur where a taxpayer deducts the expenditure incurred in acquiring trading stock during a year of assessment, or as opening stock at the commencement of the year of assessment, without including any amount in gross income for the sale of that trading stock (Stiglingh *et al.*, 2018:435). Bitcoin received in exchange for services rendered or generated in terms of bitcoin mining would already be included in gross income upon initial receipt of the bitcoin. Including the cost price of these units of bitcoin in closing stock in terms of section 22(1)(a) of the Act, if they are unsold at the end of the year of assessment, may cause an illogical double inclusion. The application of section 22(4) of the Act (as discussed) to bitcoin acquired in exchange for services or generated through bitcoin mining could support the intended working of section 22(1)(a) of the Act and resolve the tax anomaly. However, such an application may require legislative amendment.

The uncertainty of how the tax anomaly described above may be mitigated increases the structural complexity of the normal tax treatment of gains and losses arising from bitcoin held as trading stock. This tax anomaly may not occur if bitcoin gains and losses are subject to section 24I of the Act. The market value of bitcoin received would still be included in gross income upon initial receipt. However, the subsequent inclusion in taxable income upon disposal may, in terms of section 24I of the Act, be only the amount of bitcoin disposed of multiplied by the difference between the ruling exchange rate on the date the bitcoin was acquired (or the translation date, if the bitcoin was acquired in a previous year of assessment) and the ruling exchange rate when the bitcoin was disposed of (refer to Chapter 3.2). Therefore, the subsequent inclusion in the calculation of taxable income is only the gain or loss resulting from bitcoin price fluctuations after the initial receipt of bitcoin. Structural complexity may therefore be decreased through the application of section 24I of the Act to bitcoin gains and losses.

In the light of the issues discussed above, it appears that the application of section 24I of the Act to bitcoin gains and losses would lead to a decrease in the

structural complexity of the normal tax treatment of these gains and losses. Having discussed structural and technical complexity, the final aspect that needed to be investigated was compliance complexity.

5.3.3 Compliance complexity

The impact of the application of section 24I of the Act to bitcoin gains and losses on the record-keeping and administrative burden of the taxpayer is now evaluated in order to determine whether the application of the section to bitcoin gains and losses could increase or decrease compliance complexity.

5.3.3.1 Alignment to generally accepted accounting treatment

The administrative burden and compliance costs of the taxpayer may be lowered when the tax treatment of a transaction is aligned to the accounting treatment thereof (De Zilva, 2005:68). This is in the case of taxpayers who are required to comply with generally accepted accounting practice when compiling annual financial statements.

It was determined in Chapter 4 that the application of section 24I of the Act to bitcoin gains and losses would be likely to align the normal tax treatment of these gains and losses to the generally accepted accounting treatment thereof. If section 24I of the Act does not apply, the normal tax treatment of bitcoin gains and losses may diverge from the accounting treatment thereof. Thus, compliance complexity may be increased in that case.

5.3.3.2 Annual revaluation of units of bitcoin held

Section 24I of the Act may require a revaluation of all units of bitcoin held at the end of each year of assessment at the ruling exchange rate, in order to take unrealised gains and unrealised losses into account in the determination of taxable income. This requirement to perform a revaluation of the units of bitcoin held at the end of each year of assessment could increase the administrative burden of taxpayers.

The ruling exchange rate may be difficult to determine, as bitcoin is quoted at different rates on different exchanges (Van Rooyen, 2017). It is recommended that the Commissioner prescribe a rate to be used as the ruling exchange rate to convert bitcoin to rand, which is appropriate for the purposes of IFRSs, pursuant to the proviso to the

definition of 'ruling exchange rate' in section 24I(1) of the Act. However, because the SARS (2018) has indicated that bitcoins acquired through the process of bitcoin mining represent an immediate receipt or accrual, the SARS may need to provide guidance on which rate to use to convert bitcoin to rand, irrespective of whether bitcoin gains and losses are subject to section 24I of the Act.

Taxpayers may not be required to perform a revaluation of bitcoin at the end of the year of assessment where bitcoin is treated as a capital assets for normal tax purposes. However, taxpayers may need to revalue bitcoin held as trading stock at the end of the year of assessment for the purposes of section 22(1)(a) of the Act. Where the market value of closing inventory is lower than the cost, the taxpayer must disclose this fact to the SARS in the taxpayer's tax return, together with supporting information of how the lower value was determined (Stiglingh *et al.*, 2018:435). This requirement places an additional administrative burden on taxpayers holding bitcoin as trading stock, but only if the taxpayer has incurred an unrealised loss (as opposed to an unrealised gain). Furthermore, this requirement may lapse if the proposed amendment to the definition of 'financial instrument' in section 1(1) of the Act is enacted (as discussed in Chapter 3.3.1.3). Thus, compliance complexity may be increased in this regard where section 24I of the Act is applicable to bitcoin gains and losses.

5.3.3.3 Normal tax treatment of barter transactions

Bitcoin may be received or disposed of in exchange for goods and services. These transactions constitute barter transactions, if bitcoin is classified as an asset for normal tax purposes (Berger, 2016:56; SARS, 2018).

It was noted in Chapter 3.3 that the market value of goods *received* in exchange for bitcoin may represent an amount to be included in gross income, if bitcoin is held as trading stock, or the proceeds on the disposal of bitcoin, if bitcoin is held as a capital asset. Furthermore, it was noted that the market value of goods *transferred* in exchange for bitcoin may represent an amount of expenditure incurred, if bitcoin is held as trading stock, or the base cost of bitcoin held as a capital asset. Determining the market value of the goods received or transferred in exchange for bitcoin may prove to be complex (Bal, 2014a:179; Berger, 2016:4) and may as a result increase compliance complexity.

5.3.3.4 Normal tax consequences of a change in intention

It was noted in Chapter 5.3.2.2 that the intention of a taxpayer with regard to a unit of bitcoin may change. The varied uses of bitcoin as either an investment or a medium of exchange (Baur, Hong & Lee, 2017:177) increases the likelihood that a change in intention with regard to bitcoin may occur. This change in intention may have normal tax consequences, if bitcoin is subject to the provisions which govern the normal tax treatment of gains and losses arising from trading stock and capital assets. In that case, bitcoin held as trading stock may become a capital asset, and vice versa.

Where the intention of a taxpayer with regard to bitcoin held as trading stock changes in such a way that bitcoin becomes a capital asset, there may be a recoupment at market value in terms of section 22(8)(B) of the Act, read with section 22(8)(b)(iv) of the Act. The amount of the recoupment will be deemed to be the base cost of the bitcoin formerly held as trading stock, in terms of paragraph 12(3) of the Eighth Schedule. Conversely, where the intention of a taxpayer with regard to bitcoin held as a capital asset changes in such a way that bitcoin becomes trading stock, there may be a deemed disposal of bitcoin at market value in terms of paragraphs 12(1) and 12(2)(c) of the Eighth Schedule. In both these cases, the market value of bitcoin on the date the change in intention occurred may impact a taxpayer's normal tax liability. The market value of bitcoin is extremely volatile (Coelho, 2017:10). Therefore, the taxpayer would need to determine the precise date on which a change in intention with regard to bitcoin occurred.

The application of section 24I of the Act to bitcoin gains and losses may decrease compliance complexity in this regard, as a taxpayer would not need to account for a change in intention with regard to bitcoin in the calculation of the taxpayer's taxable income, nor be required to determine the date on which such a change in intention occurred. Another way in which the application of section 24I of the Act to bitcoin gains and losses may decrease compliance complexity, is in relation to determining the cost price of bitcoin held at the end of the year of assessment. This is discussed next.

5.3.3.5 Determining the cost price of bitcoin held at the end of the year of assessment

Units of bitcoin are identical, and it may therefore be difficult for the taxpayer to determine the cost price of bitcoin held at the end of the year of assessment (Coelho, 2017:10) or to determine the cost of a specific bitcoin (Antonikova, 2014:435; Lopez, 2015:123; Mandjee, 2014:39; McCullum, 2015:868; Wiseman, 2016:419,434). Section 22(5) of the Act prohibits the use of last in first out cost formula in determining the cost price of trading stock. This implies that the taxpayer is afforded the use of either the first in first out or weighted average cost formulas in determining the cost price of bitcoin held as trading stock at the end of the year.

The SARS usually allows the use of the weighted average cost method to determine the cost price of trading stock on hand (De Koker & Williams, 2018:par.8.111). Where bitcoin is held as a capital asset, paragraph 32(3)(b) of the Eighth Schedule (as discussed in Chapter 3.3.2.3) will permit the use of the first in first out method, or the specific identification method, to determine the base cost of bitcoin disposed of during the year.

The application of section 24I of the Act to bitcoin gains and losses would lead to the inclusion of both realised and unrealised gains and losses in taxable income. Hence, it would be unnecessary to determine the cost price of bitcoin realised during the year versus the cost price of bitcoin still held at year end, as this would have no effect on the calculation of taxable income. The application of section 24I of the Act may in consequence decrease compliance complexity in this regard, as it would not be necessary for the taxpayer to apply any of the cost methods

5.3.3.6 Base cost adjustments for part-disposals

Finally, compliance complexity may be increased if bitcoin is held as a capital asset, as the taxpayer may need to make adjustments to the base cost of bitcoin after each part-disposal, based on the market value on that date, in terms of paragraph 33 of the Eighth Schedule (as discussed in Chapter 3.3.2.3).

It is concluded, based on the issues raised above, that the application of section 24I of the Act to bitcoin gains and losses could lead to an overall decrease in compliance

complexity for those taxpayers to whom it may apply. Furthermore, as section 24I of the Act does not apply to natural persons who do not hold any units of foreign currency as trading stock (as discussed in 3.2), natural persons holding units of bitcoin as a long term investment would be relieved of any administrative burden. An overall conclusion is drawn below on whether the application of section 24I of the Act to bitcoin gains and losses may enhance or reduce simplicity in the normal tax treatment of bitcoin gains and losses is drawn below.

5.4 Summary and conclusions

The objective of this chapter was to determine whether the application of section 24I of the Act to bitcoin gains and losses would enhance or reduce simplicity in the normal tax treatment thereof. Factors by which to evaluate simplicity in the normal tax treatment of bitcoin gains and losses were established. The simplicity of the different normal tax treatments of bitcoin gains and losses was evaluated by considering technical complexity, structural complexity and compliance complexity.

The provisions of section 24I of the Act may be technically complex, but could decrease structural complexity as they may mitigate many of the uncertainties which arise when bitcoin gains and losses are subject to the various provisions of the Act governing gains and losses arising from trading stock and capital assets. It is also concluded that the application of section 24I of the Act to bitcoin gains and losses could lead to an overall decrease in compliance complexity for those taxpayers to whom it may apply. Consequently, the application of section 24I of the Act to bitcoin gains and losses may enhance the simplicity of the normal tax treatment of these gains and losses. Therefore, a purposive approach to the interpretation of section 24I of the Act might indicate that the section could be applicable to bitcoin gains and losses. A conclusion on whether that is indeed the case, is drawn in the following chapter.

CHAPTER 6
CONCLUSION

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CHAPTER 6 CONCLUSION

6.1 Introduction

Determining the ambit of fiscal legislation, such as section 24I of the Act, requires consideration of its purpose. This study set out to determine whether a purposive approach to the interpretation of section 24I of the Act might indicate that the section could be applicable to bitcoin gains and losses. Accordingly, the study investigated whether the objectives of section 24I of the Act would be met if the section were to be applied to bitcoin gains and losses.

6.2 Summary of findings

The findings summarised below are used to draw a conclusion on whether a purposive approach to the interpretation of section 24I of the Act might indicate that the section could be applicable to bitcoin gains and losses.

It was established in Chapter 1 that the objectives of section 24I of the Act include, inter alia, aligning the normal tax treatment of foreign exchange transactions to current tax principles, generally accepted accounting practice and the principle of simplicity. The current tax principle of neutrality, as included in the Organisation for Economic Cooperation and Development (OECD) *Electronic Commerce Taxation Framework Conditions*, was identified as particularly relevant to the research question.

Chapter 2 explored whether the current tax principle of neutrality may require the application of section 24I of the Act to bitcoin gains and losses. The approach employed by the Court of Justice of the European Union in *Skatteverket v David Hedqvist* ECJ C-265/14 (*David Hedqvist* case) was discussed in order to provide guidance on whether the current tax principle of neutrality may require the application of section 24I of the Act to bitcoin gains and losses in terms of a purposive approach. The approach followed by the Court of Justice of the European Union was summarised as follows:

1. The objectives of the provision must be established.
2. It must be determined whether bitcoin has the same function as the items to which the provision pertains.

3. It must be determined whether applying a provision to bitcoin would be consistent with the objectives of the provision.

The first and third steps of the approach followed by the Court of Justice of the European Union represent the purposive approach to interpretation which has been employed by the South African judiciary in interpreting the Act. Consequently, it remained to be established whether the second step of the approach followed by the Court of Justice of the European Union is appropriate for interpreting section 24I of the Act, as the *David Hedqvist* case was firstly a foreign case, and secondly pertained to value-added tax, while section 24I of the Act governs normal tax consequences.

In the second step of their approach, the Court of Justice of the European Union determined whether bitcoin has the same function as the items to which the provision pertains, in order to ensure fiscal neutrality. It was found that the principle of fiscal neutrality, which pertains to direct tax, is comparable to the principle of neutrality, which pertains to direct and indirect tax. It was found that the *Green Paper on Electronic Commerce for South Africa* supports the taxation principles of the OECD *Electronic Commerce Taxation Framework Conditions*, which includes the principle of neutrality.

It was further found that the *Green Paper on Electronic Commerce for South Africa* suggests that South African legislation be aligned to the *Model Law on Electronic Commerce* developed by the United Nations Commission on International Trade Law. The *Model Law on Electronic Commerce* employs the functional equivalence approach to achieve technological neutrality. It was also found that the Electronic Communications and Transactions Act No. 25 of 2002 incorporates the functional equivalence approach. Therefore, it was found that the functional equivalence approach to interpretation is relevant in the South African legal environment.

It was further found that various rationales exist for employing the functional equivalence approach in interpreting the Act. These include:

- promoting fairness and equity in taxation;
- supporting the optimal allocation of resources in the market; and
- enhancing the sustainability of legislation.

It was found that bitcoin fulfils the three economic functions of foreign currency, as it may function as a medium of exchange, unit of account and store of value. Therefore, bitcoin may be regarded as a functional equivalent of foreign currency for the purposes of interpreting section 24I of the Act.

The third step in the approach followed by the Court of Justice of the European Union involves determining whether applying a provision to bitcoin would be consistent with the objectives of the provision. The objectives of section 24I of the Act include aligning the normal tax treatment of foreign exchange gains and losses not only to current tax principles, but also to generally accepted accounting practice and, specifically, to the principle of simplicity. Hence, it remained to be determined whether the application of section 24I of the Act to bitcoin gains and losses would:

- align the normal tax treatment of bitcoin gains and losses to the generally accepted accounting treatment thereof; and
- enhance or reduce simplicity.

To enable a determination of whether the application of section 24I of the Act to bitcoin gains and losses would meet the objectives above, the alternative normal tax treatments of bitcoin gains and losses were discussed in Chapter 3. The two alternative normal tax treatments of bitcoin gains and losses are to tax bitcoin gains and losses as a foreign currency in terms of section 24I of the Act, or alternatively to regard bitcoin as an asset for normal tax purposes, in which case section 24I of the Act is not applied.

It was found that the application of section 24I of the Act to bitcoin gains and losses could lead to the inclusion in or deduction from income of realised and unrealised bitcoin gains and losses by certain taxpayers (excluding natural persons who hold no units of bitcoin or foreign currency as trading stock). The inclusion of gains and losses in taxable income could be irrespective of whether the bitcoin gain or loss is income or capital in nature.

In terms of section 24I of the Act, the realised bitcoin gain or loss which may be included in or deducted from income is the amount in bitcoin multiplied by the difference between the ruling exchange rate at which the bitcoin was disposed of during the year of assessment and the ruling exchange rate on the date the bitcoin

was acquired (or the ruling exchange rate on the last day of the previous year of assessment, if the bitcoin was acquired in a previous year of assessment). The unrealised bitcoin gain or loss which may be included in or deducted from income is the amount in bitcoin multiplied by the difference between the ruling exchange on the last day of the year of assessment and the ruling exchange on the date the bitcoin was acquired (or the ruling exchange on the last day of the previous year of assessment, if the bitcoin was acquired in a previous year of assessment).

As an alternative to regarding bitcoin as a functional equivalent to foreign currency, it may be regarded as an asset for normal tax purposes. It has been proposed, in the Draft Taxation Laws Amendment Bill 2018, that the definition of 'financial instrument' in section 1(1) of the Act be amended to include any cryptocurrency. This amendment would give effect to the classification of bitcoin as an asset, and would therefore negate the application of section 24I of the Act. It was found that if bitcoin is regarded as an asset for normal tax purposes, the normal tax treatment of bitcoin gains and losses may depend on whether bitcoin is held as trading stock or as a capital asset by the taxpayer. The normal tax treatment in both of these cases was discussed in Chapter 3 and is briefly summarised below.

The amount received in exchange for bitcoin held as trading stock may be included in gross income in terms of the definition of 'gross income' in section 1(1) of the Act. The cost of acquiring bitcoin held as trading stock may be deductible in terms of the general deduction formula in section 11(a), read with section 23(g) of the Act, or in terms of section 22(2) of the Act, if the bitcoin was acquired in a previous year of assessment. This results in the net inclusion of realised bitcoin gains and losses in the taxable income of the taxpayer. An unrealised gain arising from bitcoin held as trading stock may have no normal tax consequences, as there is no amount received by or accrued to the taxpayer. An unrealised loss due to an adverse fluctuation in the price of bitcoin held as trading stock may effectively decrease taxable income through the application of section 22(1)(a) of the Act. However, if the proposed amendment to the definition of 'financial instrument' in section 1(1) of the Act is enacted, this could prevent unrealised bitcoin losses from decreasing taxable income.

The normal tax treatment of bitcoin held as a capital asset may be governed by the Eighth Schedule. A realised bitcoin gain or loss may in that case be calculated as the

proceeds from the disposal of bitcoin less the base cost of bitcoin sold. There may be no normal tax consequences for unrealised capital bitcoin gains and losses, except in the case of a deemed disposal. Where a deemed disposal occurs, a capital gain or loss may be calculated as the market value on the date of the deemed disposal less the base cost of the bitcoin sold. The capital gain or loss may be disregarded if the bitcoin is held as a personal-use asset. That being said, if the proposed amendment to the definition of 'financial instrument' in section 1(1) of the Act is enacted, this amendment could preclude bitcoin from constituting a personal-use asset.

Chapter 4 aimed to determine whether the application of section 24I of the Act to bitcoin gains and losses would lead to an alignment between the normal tax treatment and the generally accepted accounting treatment of bitcoin gains and losses. It was established that no specific guidance exists concerning accounting for bitcoin transactions. Bitcoin did not appear to qualify as a currency for the purposes of the *International Financial Reporting Standards* (IFRSs). The appropriateness of accounting for bitcoin under the following existing IFRSs was considered:

- IAS 21 *The Effects of Changes in Foreign Exchange Rates*;
- IAS 32 *Financial Instruments* and IFRS 9 *Financial Instruments*;
- IAS 16 *Property, Plant and Equipment* and IAS 40 *Investment Property*;
- IAS 38 *Intangible Assets*; and
- IAS 2 *Inventories*.

It was found that there may not be an IFRS dealing with similar or related transactions which may be applied to achieve relevant and reliable accounting information with regard to bitcoin. Consequently, it was determined that the generally accepted accounting treatment for bitcoin could be based on the *Conceptual Framework for Financial Reporting*. It was found that the normative accounting treatment for bitcoin may be to measure bitcoin at fair value, with unrealised and realised bitcoin gains and losses being recorded in profit and loss.

Chapter 5 investigated whether applying section 24I of the Act to bitcoin gains and losses would enhance or reduce simplicity. It was determined that technical complexity, structural complexity and compliance complexity may influence the simplicity of the normal tax treatment of bitcoin gains and losses. Therefore, the two

alternative normal tax treatments of bitcoin gains and losses, as discussed in Chapter 3, were evaluated in terms of technical, structural and compliance complexity.

The application of section 24I of the Act to bitcoin gains and losses appeared to have a negligible effect on technical complexity. This is because, on the one hand, section 24I of the Act is one of the most technically complex sections in the Act; yet, on the other hand, it would make it possible for the normal tax treatment of bitcoin gains and losses to be governed by a single section, with limited reference to other sections of the Act. Section 24I of the Act was also found to compare favourably in length (number of words used) to the various provisions which may apply if bitcoin is regarded as an asset, which may make it simpler for taxpayers to apply section 24I of the Act to bitcoin gains and losses.

With regard to structural complexity, the study determined the following:

- Uncertainty exists as to whether bitcoin acquired to purchase goods and services would constitute trading stock. Structural complexity is increased when the taxpayer cannot predict the tax consequences of a transaction with certainty.
- Section 24I of the Act affords a similar normal tax treatment to gains and losses of an income and capital nature. The application of section 24I of the Act to bitcoin gains and losses would therefore make it unnecessary to determine the income or capital nature of a bitcoin gain or loss, for those taxpayers to whom section 24I may apply. This may decrease structural complexity.
- The application of section 24I of the Act may lead to uniformity in the normal tax treatment of unrealised bitcoin gains and unrealised bitcoin losses, thereby decreasing structural complexity.
- Subjecting bitcoin held as trading stock to the various provisions of the Act governing gains and losses arising from trading stock and capital assets, as opposed to the specific provisions of section 24I of the Act, could lead to a tax anomaly. This anomaly may give rise to uncertainties which may increase structural complexity.

It was found that the application of section 24I of the Act to bitcoin gains and losses may increase compliance complexity, as it will require a revaluation of all units of

bitcoin held at the end of each year of assessment. Conversely, the application of section 24I of the Act may decrease compliance complexity in the normal tax treatment of bitcoin gains and losses in the following ways:

- A greater alignment may occur between the normal tax treatment and the generally accepted accounting treatment of bitcoin gains and losses, which may decrease the administrative burden for taxpayers who are required to comply with generally accepted accounting practice.
- Taxpayers may not need to apply the complex rules pertaining to barter transactions when bitcoin is received or disposed of in exchange for goods and services.
- A change in intention with regard to a particular unit of bitcoin may not give rise to any additional normal tax consequences.
- It would be unnecessary to determine the cost price of bitcoin realised during the year versus the cost price of bitcoin still held at year end, as this would have no effect on the calculation of taxable income.
- The taxpayer will not be required to make adjustments to the base cost of units of bitcoin after each part-disposal.

The findings summarised above are used to draw a conclusion on whether a purposive approach to the interpretation of section 24I of the Act might indicate that the section could be applicable to bitcoin gains and losses. The conclusions which may be drawn from the findings of this study are, however, subject to certain limitations.

6.3 Discussion of problems and limitations

It was noted in Chapter 6.2 that one of the objectives of section 24I of the Act is to align the normal tax treatment of foreign exchange gains and losses with generally accepted accounting practice. The International Accounting Standard Board has not issued any guidance with regard to the generally accepted accounting treatment of bitcoin transactions. The conclusions below are drawn on the assumption that the generally accepted accounting treatment of bitcoin is to measure it at fair value through profit and loss. This assumption is supported by the discussion in Chapter 4.

A further limitation of the conclusions is that the scope of this study did not include bitcoin loans or bitcoin futures. Therefore, the conclusions below relate only to gains

and losses arising from units of bitcoin held, and cannot be generalised to include the gains and losses arising from bitcoin loans and bitcoin futures.

Bitcoin was the focus of the current study. However, there are several altcoins in circulation which are gaining traction. The conclusions drawn in this study may possibly be applied to altcoins that share some of the key features of bitcoin. This could be the case for altcoins that are decentralised, convertible, mined and designed to operate as a means of payment.

6.4 Conclusions

This study aimed to determine whether a purposive approach to the interpretation of section 24I of the Income Tax Act, No. 58 of 1962, might indicate that the section could be applicable to bitcoin gains and losses. The objectives of the study were accordingly to determine whether the principle of neutrality requires the application of section 24I of the Act to bitcoin gains and losses; to summarise the alternative normal tax treatments of bitcoin gains and losses; to compare the generally accepted accounting treatment of bitcoin gains and losses to the normal tax treatment of bitcoin gains and losses in terms of section 24I of the Act; and to reach a conclusion on whether the application of section 24I of the Act would enhance or reduce simplicity.

The findings in Chapter 2 suggested that it may be appropriate to employ the functional equivalence approach when interpreting section 24I of the Act. It was also found that bitcoin may be regarded as a functional equivalent of foreign currency. Therefore, it is concluded that the current tax principle of neutrality may require the application of section 24I of the Act to bitcoin gains and losses. This suggests that the application of section 24I of the Act to bitcoin gains and losses may align the normal tax treatment of bitcoin gains and losses to current tax principles, thereby furthering the objectives of the provision.

It was further found in Chapter 4 that the generally accepted accounting treatment for bitcoin may be to measure bitcoin at fair value through profit and loss. Based on the findings in Chapter 3, this accounting treatment would be aligned to the normal tax treatment of bitcoin gains and losses under the provisions of section 24I of the Act. Thus, it is concluded that the application of section 24I of the Act to bitcoin gains and losses may align the normal tax treatment of bitcoin gains and losses to generally

accepted accounting practice, which would support the objectives of section 24I of the Act.

Finally, the findings in Chapter 5 suggest that the normal tax treatment of bitcoin gains and losses in terms of section 24I of the Act would give rise to fewer structural and compliance complexities than the alternative normal tax treatment of bitcoin gains and losses, should bitcoin be regarded as an asset. For that reason, it may be concluded that the application of section 24I of the Act to bitcoin gains and losses may enhance simplicity in the normal tax treatment of bitcoin gains and losses.

Consequently, the findings of this study suggest that the application of section 24I of the Act to gains and losses arising from units of bitcoin held may lead to the furtherance of the objectives of the provision. As was evident in the *David Hedqvist* case, the technologically neutral interpretation of a provision requires that functional equivalents be subject to the same tax treatment, provided that this is consistent with the objectives of the provision. Therefore, a purposive interpretation to section 24I of the Act might indicate that the section could be applicable to bitcoin gains and losses.

6.5 Summary of contributions

This study is the first to employ a purposive approach in investigating the normal tax treatment of bitcoin gains and losses in the South African context. In doing so, the study demonstrates one way in which a purposive approach may be employed to apply existing legislation to novel technologies in a manner which promotes neutrality and simplicity in taxation.

The findings of this study suggest that the current normal tax treatment of bitcoin gains and losses, as well as the amendments proposed in the Draft Taxation Laws Amendment Bill 2018, may undermine current tax principles, specifically the principles of neutrality and simplicity. The study also revealed that the normal tax treatment proposed by the SARS, which will be given effect if the amendment to the definition of 'financial instrument' in section 1(1) of the Act is enacted, may lead to a tax anomaly. Based on these findings, it is recommended that the SARS and National Treasury reconsider their position on bitcoin and other cryptocurrencies.

6.6 Suggestions for further research

Further research into the normal tax treatment of gains and losses arising from bitcoin loans and bitcoin futures may be undertaken, and might provide additional support for treating bitcoin as a functional equivalent to foreign currency for the purposes of section 24I of the Act.

It remains to be seen whether the amendments proposed in the Draft Taxation Laws Amendment Bill 2018 will be enacted. The impact of the amendments, if enacted, on the normal tax treatment of bitcoin gains and losses will also be an area for further research.

This study did not include an investigation into the enforceability of the taxation of bitcoin transactions. Further research is suggested into how the taxation of bitcoin transactions may be enforced in order to prevent losses by the fiscus. Such research could include an investigation into the actions underway at revenue authorities across the world to enforce the collection of tax pertaining to bitcoin transactions.

Finally, an investigation into whether other practices of the SARS may undermine technological neutrality is recommended. Such a study could lead to recommendations which may contribute to a tax system wherein the potential benefits of electronic commerce can be realised without discrimination against new technologies.

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Case law

South African cases

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Case name and reference to South African Tax Cases Reports	Additional reference
<i>African Life Investment Corporation (Pty) Ltd v SIR</i> (1969) 31 SATC 163	1969 (4) SA 259 (A)
<i>CSARS v Capstone 556 (Pty) Ltd</i> 78 SATC 231	[2016] 2 All SA 21 (SCA)
<i>CIR v Genn & Co (Pty) Ltd</i> (1955) 20 SATC 113	1955 (3) SA 293 (AD)
<i>CIR v Nel</i> (1997) 59 SATC 349	[1997] 4 All SA 310(T)
<i>CIR v Pick 'n Pay Employee Share Purchase Trust</i> (1992) 54 SATC 271	1992 (4) SA 39 (A),
<i>CIR v Stott</i> (1928) 3 SATC 253	1928 AD 252
<i>COT v Levy</i> (1952) 18 SATC 127 (A)	1952 (2) SA 413 (AD)
<i>Elandsheuwel Farming (Edms) Bpk v SBI</i> (1978) 39 SATC 163	1978 (1) SA 101 (AD)
ITC 1355 (1981) 44 SATC 132	
ITC 1525 (1991) 54 SATC 209	
<i>Natal Estates Ltd v SIR</i> (1975) 37 SATC 193	1975 (4) SA 177 (A)
<i>Overseas Trust Corporation Ltd v CIR</i> (1926) 2 SATC 71	1926 AD 444
<i>Pyott Ltd v CIR</i> (1945) 13 SATC 121	1945 AD 128
<i>SIR v The Trust Bank of Africa Ltd</i> (1975) 37 SATC 87	1975 (3) SA 652(A)
<i>South Atlantic Jazz Festival (Pty) Ltd v CSARS</i> (2015) 77 SATC 254	2015 (6) SA 78 (WCC)
<i>Visser v CIR</i> (1937) 8 SATC 271	1937 TPD 77
<i>Lategan WH v CIR</i> (1926) 2 SATC 16	1926 CPD 203

Foreign case – Court of Justice of the European Union

Skatteverket v David Hedqvist ECJ C-265/14

ANNEXURE A: EXTRACTS FROM THE INCOME TAX ACT NO. 58 OF 1962

24I. Gains or losses on foreign exchange transactions.—

(1) For the purposes of this section— ...

“exchange difference” means the foreign exchange gain or foreign exchange loss in respect of an exchange item during any year of assessment determined by multiplying such exchange item by the difference between—

(a) the ruling exchange rate on transaction date in respect of such exchange item during that year of assessment, and—

(i) the ruling exchange rate at which such exchange item is realised during that year of assessment; or

(ii) the ruling exchange rate at which such exchange item is translated at the end of that year of assessment; or

(b) the ruling exchange rate at which such exchange item was translated at the end of the immediately preceding year of assessment or at which it would have been translated had this section been applicable at the end of that immediately preceding year of assessment, and—

(i) the ruling exchange rate at which such exchange item is realised during that year of assessment; or

(ii) the ruling exchange rate at which such exchange item is translated at the end of that year of assessment;

“exchange item” of or in relation to a person means an amount in a foreign currency—

(a) which constitutes any unit of currency acquired and not disposed of by that person;

(b) owing by or to that person in respect of a debt incurred by or payable to such person;

(c) owed by or to that person in respect of a forward exchange contract; or

(d) where that person has the right or contingent obligation to buy or sell that amount in terms of a foreign currency option contract;

“foreign currency” in relation to any exchange item of a person, means any currency which is not local currency;...

“local currency” means in relation to— ...

(b) any resident other than a headquarter company in respect of an exchange item which is not attributable to a permanent establishment outside the Republic, the currency of the Republic;...

“realised” means, in relation to an exchange item, where such exchange item is— ...

(d) an amount which constitutes a unit of currency, when that amount is disposed of;

“ruling exchange rate” means, in relation to an exchange item, where such exchange item is— ...

(d) an amount which constitutes a unit of currency, on—

(i) transaction date, the spot rate on that date;

(ii) the date it is translated, the spot rate on that date; or

(iii) the date it is realised, the spot rate on that date:

Provided that the Commissioner may, having regard to the particular circumstances of the case, prescribe an alternative rate to any of the aforementioned prescribed rates to be applied by a person in such particular circumstances, if such alternative rate is used for the purposes of financial reporting pursuant to IFRS;

“transaction date” means, in relation to— ...

(g) an amount which constitutes a unit of currency, the date on which that amount was acquired;

“translate” means the restatement of an exchange item in the local currency at the end of any year of assessment, by applying the ruling exchange rate to such exchange item.

(2) The provisions of this section shall apply in respect of any—

(a) company;

(b) trust carrying on any trade;

(c) natural person who holds any amount contemplated in paragraph (a) or (b) of the definition of “exchange item” as trading stock; and

(d) natural person or trust in respect of any amount contemplated in paragraph (c) or (d) of the definition of “exchange item”:

Provided that this section does not apply in respect of any exchange item of a person who is not a resident (other than a controlled foreign company), unless that exchange item is attributable to a permanent establishment of that person in the Republic.

(3) In determining the taxable income of any person contemplated in subsection (2), there shall be included in or deducted from the income, as the case may be, of that person—

- (a) any exchange difference in respect of an exchange item of or in relation to that person, subject to subsection (10A); and
- (b) (i) any premium or like consideration received by, or paid by, such person in terms of a foreign currency option contract entered into by such person; or
(ii) any consideration paid by such person in respect of a foreign currency option contract acquired by such person....