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THE REGULATION OF CRYPTOCURRENCIES IN THE CONTEXT OF SOUTH AFRICA'S FINANCIAL SECTOR

By

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DECLARATION

I, Lucrecia Sadhaseevan, hereby declare that:

a) this dissertation constitutes an original piece of work, and I have not plagiarised in any manner or form;

b) every academic source and opinion utilised in this dissertation are acknowledged; and

c) this dissertation shall be made available for photocopying and interlibrary loan.

Signed at **Johannesburg** on this **11th day** of **September 2019.**

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ABSTRACT

Getting a global society to agree something has value and can be used as a currency without government support and without a physical form is one of the most significant accomplishments in monetary history.[1]

This research critically analyses a significant yet, uncertain area of law in South Africa - the regulation of cryptocurrencies. Cryptocurrencies are digital representations of value supported by cryptography and function within a global computerised ledger system called the blockchain. Cryptocurrencies are multifaceted with its use extending beyond an alternative payment method. Cryptocurrencies are not issued nor controlled by a central regulatory authority, hence, they are not considered to be legal tender in South Africa.

Currently, as at September 2019, cryptocurrencies are not directly regulated in South Africa. South African financial regulators, particularly the South African Reserve Bank and the South African National Treasury caution users about the risks associated with cryptocurrencies and vigorously indicate that citizens have no recourse to South African authorities. On the other hand, the South African Revenue Service indicates that citizens must declare their cryptocurrency gains and losses as part of their taxable income. It intends on regulating cryptocurrencies within the existing tax law framework by amending certain provisions to include cryptocurrencies and its use thereof. This research has shown that this position lacks coherency because it does not address the regulatory and legal uncertainty heralded by the emergence of cryptocurrencies. Significantly, cryptocurrency intermediaries possess similarities to traditional financial intermediaries. Thus, the applicability of existing financial legislation to cryptocurrencies and its use thereof is uncertain. This research serves as an initiative to reduce this uncertainty by analysing South Africa's financial legislative framework, with the hope that South African financial regulators perform a similar task. Consequently, this unregulated environment increases the risk for cryptocurrencies to be used as vehicles for financial crime, consumer risks, and risks to the overall financial sector.

As a result, this research proposes that an effective legal and regulatory framework must be implemented for cryptocurrencies and its use thereof in South Africa. In considering the regulatory approaches of international jurisdictions such as the United States of America,

[1] C Burniske and J Tatar, Crypto-assets (2017).

Australia and Japan, this research ultimately proposes that South African financial regulators adopt a functional approach to cryptocurrency regulation. This will entail a unified regulatory approach consisting of a blend of one or more of the following approaches: the development of an industry regulator over the cryptocurrency industry supported by the amendment of existing financial legislation under the aegis of the Twin Peaks model such as the Conduct of Financial Institutions Bill, 2018 and financial services laws, the issuing of bespoke legislation and consumer protection guidelines.

CHAPTER 1: INTRODUCTION

1.1. BACKGROUND

Advancements in financial technology (Fintech)[2] have dramatically transformed the financial sector. New products and services that enable financial transactions between individuals and businesses have emerged, creating an alternate environment of finance related activities. The advent of cryptocurrencies is the epitome of this transformation, having prompted international debate due to the complex legal and regulatory challenges it has introduced to the financial sector. This research will focus, analyse and critique the regulation of cryptocurrencies in a South African context. It will further, aim to determine ways in which cryptocurrencies should be regulated within South Africa - and whether or not South Africa's existing financial legislation can accommodate its acquisition, trading and/or use thereof.

In South Africa, to date, there is no primary or secondary legislation promulgated regulating cryptocurrencies.[3] In 2014, the South African Reserve Bank (SARB) issued a position paper setting out its regulatory position on cryptocurrencies. According to the SARB, cryptocurrencies do not fall within the definition of legal tender in terms of the SARB Act 90 of 1989 (SARB Act).[4] The SARB firmly rejects any oversight, supervision, or regulation of the cryptocurrency landscape, systems, or intermediaries.[5] Further, the SARB indicates that:

> 'Any or all activities related to the acquisition, trading or use of virtual currencies,[6] particularly [cryptocurrencies] are at the end-user's sole and independent risk and have no recourse to the bank.'[7]

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[2] Financial technology is defined by Price Water House Cooper as a dynamic segment at the intersection of the financial services and technology sectors where technology focused start-ups and new market entrants innovate products and services currently provided by the traditional financial services industry. It is financial innovation intertwined with legal technology to change the way finance is conducted, often as a disruptive technology. Disruptive innovation refers to the creation of new markets and value networks that eventually disrupt the existing markets and value networks, displacing established market leaders and alliances. Many financial innovations are thought of as disruptive because they usher in new products, new ways of effecting transactions and intermediation, new institutions and organisational forms that may permanently change the landscape of finance. Available at: I Chiu 'Fintech and Disruptive Business Models in Financial Products, Intermediation and Markets Policy Implications for Financial Regulators' (2016) 21 *Journal of Technology Law and Policy* 55 at 58.

[3] A Nieman 'A few South African cent's worth on Bitcoin' (2015) 18 *PER/PELJ* 5 at 1988.

[4] South African Reserve Bank National Payment System Department *Position Paper 02 on Virtual Currencies* (2014) at 4. The SARB recently indicated its preference to refer to cryptocurrencies as cyber tokens and not currencies. See, J Vermeulen 'Bitcoin and other cryptocurrencies are neither currencies nor securities-SARB' *My Broad Band* 26 June 2018, available at *http://www.mybroadband.co.za*, accessed on 17 July 2018.

[5] South African Reserve Bank National Payment System Department op cit note 4 at 12.

[6] Financial Action Task Force *FATF Report: Virtual Currencies - Key Definitions and Potential AML/CFT Risks* (2014) at 4. The Financial Action Task Force (FATF) defines virtual currencies as digital representations of value

Similarly, the South African National Treasury (SANT) indicates that users of cryptocurrencies have no recourse to South African authorities.[8] It states that:

> 'While there are benefits associated with this new technology, it is difficult to assess those benefits against the risks of something so novel, innovative and technologically sophisticated.'[9]

In 2014, the Davis Tax Committee requested the SANT to consider the impact of cryptocurrencies on tax compliance,[10] which prompted the South African Revenue Service (SARS) to issue a media statement in April 2018 indicating that normal income tax rules apply to cryptocurrencies, and affected taxpayers are expected to declare cryptocurrency gains or losses as part of their taxable income.[11] Therefore, cryptocurrencies are not regarded by SARS as currency for income tax purposes or capital gains tax, instead they are regarded as assets of an intangible nature.[12]

In addition, recent proposals by the SANT to amend the Valued Added Tax (VAT) and Income Tax (IT) legislation indicate its intention of regulating cryptocurrencies within South Africa's existing tax law framework.[13]

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that can be digitally traded and functions as a medium of exchange, a unit of account and/or a store of value but does not have legal tender status. The FATF is an inter-governmental body whose purpose is the development and promotion of policies, both at an international and national level, to combat money laundering and terrorist financing.

[7] South African Reserve Bank National Payment System Department op cit note 4 at 12.

[8] South African National Treasury *User Alert: Monitoring of Virtual Currencies* (2014) at 4. The User Alert is a combined statement between the National Treasury; the SARB; the Financial Services Board; the SARS; and the Financial Intelligence Centre warning members of the public to be aware of the risks associated with the use of virtual currencies for either transactions or investments.

[9] Ibid at 1.

[10] L Steenkamp 'Crypto taxes: two sides of the (bit) coin' (2018) 33 *Insurance and Tax Journal* 2 at 1. See also, P Mehta 'Trading in Bitcoin: Keep the taxman in mind' *IT News Africa* 29 January 2019, available at *https://www.itnewsafrica.com/2018/01/trading-in-bitcoin-keep-the-tax-man-in-mind,/* accessed on 14 July 2018.

[11] South African Revenue Service *Media Release: SAR'S stance on the tax treatment of cryptocurrencies* (2018) at para 1 and M Stiglingh, A Koekemoer, L Van Heerden et al 'Silke: South African Income Tax: Foreign exchange: Cryptocurrency' at 1, available at *https://www. mylexisnexis co.za.ukzn.idm.oclc.org /ndex.aspx?permalink*, accessed on 6 January 2019.

[12] South African Revenue Service op cit note 11 at para 6. It is important to note that no amendments have been made to South Africa's tax regulations to include cryptocurrencies. However, there have been proposals regarding amendments to the tax regulations which will be discussed in Chapter 3 in section 3.3(a). Currently, normal tax principles apply to profits made from cryptocurrencies. As will be seen in this research international jurisdictions have adopted regulatory methods aimed at combatting the use of cryptocurrencies for tax evasion.

[13] Cliffe Dekker Hofmeyr 'Decrypting the law: Proposed VAT Act amendments affecting cryptocurrencies' *Tax and Exchange Control Alert* 27 July 2018 at 1, available at *http://www.cliffedekerhofmeyr.com*, accessed on 31 July 2018.

Recent initiatives by the SARB indicate a shift in its position toward a balanced approach, which involves assessing the benefits of cryptocurrencies against its risks.[14] To perform this assessment, the SARB established an Intergovernmental Fintech Working Group (IFWG) in 2016 and the Crypto Assets Regulatory Working Group (CARWG) in 2018 to engage with the Fintech industry to develop a harmonised approach to Fintech innovations and review its 2014 position on cryptocurrencies.[15] Ultimately, this will inform an appropriate policy framework and regulatory regime.[16]

It is clear from this position that South African financial regulators acknowledge that there is a crucial need for a legal and regulatory framework governing Fintech such as cryptocurrencies. They, however, equally reiterate that for now, the public is on its own as far as cryptocurrencies are concerned, and that citizens using cryptocurrencies must declare cryptocurrency gains or losses as part of their taxable income. Thus, it is clear that a coherent legal and regulatory approach to cryptocurrencies in South Africa is absent. Therefore, this research aims to make a compelling case for an effective legal and regulatory framework governing the use of cryptocurrencies in South Africa.

Generally, cryptocurrencies are virtual currencies[17] that operate without the control of a central regulatory authority that are exchangeable for legal tender and may be used to purchase goods and services in the real economy.[18] The dominant cryptocurrency that has laid the foundation for all cryptocurrencies is Bitcoin.[19]

Following Bitcoin, the largest cryptocurrencies include Ethereum, Ripple, and Litecoin.[20] They are appealing to users for several reasons such as: their equivalent value in real currency and ability to be traded for real currencies,[21] their transactional speed and reduced costs as compared

[14] South African Reserve Bank *Media Statement: Fintech Release* (2018) at 1.
[15] Intergovernmental Fintech Working Group *Final Intergovernmental Fintech Working Group Report* (2018) at 1-2.
[16] Intergovernmental Fintech Working Group, Crypto Assets Regulatory Working Group *Consultation Paper on Policy Proposals for Crypto Assets* (2019) at 5.
[17] This means that they exist wholly in the virtual realm.
[18] South African Reserve Bank National Payment System Department op cit note 4 at 4.
[19] A Gikay 'Regulating Decentralised Cryptocurrencies under Payment Services Law: Lessons from European Union Law' (2018) 9 *Journal of Law, Technology & the Internet* at 4.
[20] Coinmarketcap 'Top 100 Cryptocurrencies by Market Capitilisation' available at: *http://www.coinmarketcap.com*, accessed on 16 July 2018.
[21] Real currencies are also referred to as fiat or national currencies. For preference, this research employs the term real currencies. Real currencies are the coin or paper money of a country that is designated as its legal tender and is

to the conventional banking system.[22] Since cryptocurrencies are not controlled by a central regulatory authority[23] they can be used as vehicles for financial crimes such as money laundering, the financing of terrorism and tax evasion, lead to the loss of fees for banks and the likelihood of a diminishing demand for real currencies.[24]

As a result, cryptocurrencies are on the radar of financial regulators worldwide.[25] At an international level, there is no consistent regulation of cryptocurrencies.[26] Different regulatory approaches have emerged amongst jurisdictions.[27] Some have banned the use of cryptocurrencies,[28] whereas, others have addressed the immediate risks of cryptocurrencies by amending or clarifying the interpretations of existing legislation; regulating cryptocurrency intermediaries that provide an interface with the broader economy such as cryptocurrency exchanges; developing consumer protection mechanisms and issuing new legislation and/or policy guidelines.[29] Against this background, this research will analyse the regulatory approaches adopted by leading technological jurisdictions particularly the United States of America (USA), Australia and Japan. The objective is to gain insight into how the financial regulators of these jurisdictions regulate cryptocurrencies for the purpose of determining suitable proposals for the South African regulation of cryptocurrencies.

Similarly to its international counterparts, South African legal authors have attempted to develop solutions to merge the fast-moving world of technology and other intangible assets to the law.[30] The emergence of cryptocurrencies ignited the interests of several South African legal

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customarily used and accepted as a medium of exchange in the issuing country. Real currency is distinct from e-money, which is a digital representation of real currency used to electronically transfer value denominated in real currency. E-money is a digital transfer mechanism for real currency i.e. it electronically transfers value that has legal tender status. The SARB distinguishes cryptocurrencies from e-money. This is explained in detail in Chapter 3 in section 3.2 (b).

[22] Financial Action Task Force op cit note 6 at 4.

[23] Such as a central bank or other type of financial institution.

[24] J De Mink 'The rise of Bitcoin and other cryptocurrencies' (2017) 580 *De Rebus* at 30.

[25] South African Reserve Bank National Payment System Department op cit note 4 at 3.

[26] K Rooney 'Your guide to cryptocurrency regulations around the world and where they are headed' *CNBC Markets* 27 March 2018, available at *https//www.cnbc.com*, accessed on 31 August 2018.

[27] International Monetary Fund *Discussion Note 16/03 Virtual Currencies and Beyond: Initial Considerations* (2016) at 25.

[28] For example: China, Russia and Thailand. See, Buy Bitcoin worldwide 'Countries where Bitcoin is banned' available at *https://www.buybitcoinworldwide.com*, accessed on 31 July 2018.

[29] International Monetary Fund op cit note 27 at 25-30.

[30] D van der Merwe, A Roos, W Nel et al *Information and Communications Technology Law* 2ed (2016) at 1.

professionals, who maintain the view that the growing adoption of cryptocurrencies on a global scale might indicate that they are here to stay.[31] Therefore, attempting to fit the intangible nature of cryptocurrencies into existing legislation is challenging.[32] As a result, governments cannot ignore it.[33] This research argues that regulatory initiatives should commence by examining the potential applicability of financial legislation relevant to cryptocurrencies in South Africa.[34] Thus, this research serves as an initiative to do so. According to the IFWG, South Africa has a well-established legal framework that governs the financial sector called the Twin Peaks model.[35] The IFWG and other legal professionals are of the view that the impact of cryptocurrencies on financial legislation under the aegis of the Twin peaks model particularly: the SARB Act; the Banks Act 94 of 1990; the Financial Advisory and Intermediary Services Act 37 of 2002 and the Financial Intelligence Centre Act 38 of 2001 must be considered.[36] In addition, the SARB in its policy paper entitled *Vision 2025* indicates that it is necessary to determine whether the same rules applicable to existing participants within the payment system is applicable to new participants that provide similar payment activities and services.[37] Thus, in addition to the legislation under the aegis of the Twin Peaks model, this research will also discuss the applicability of the common law of payment systems in South Africa and the National Payment System Act 78 of 1988 on cryptocurrencies and its use thereof.

In light of this background, the aim of this research is to review the existing legal and regulatory framework potentially governing cryptocurrencies in South Africa, compare this framework with international developments, and will conclude by suggesting a functional regulatory framework for cryptocurrencies in South Africa. This will ultimately involve a unified regulatory approach involving a blend of the following regulatory approaches: the development of an industry regulator supported by the amendment of existing financial legislation particularly the

[31] A Nieman op cit note 3 at 1988. See, S Govender 'Bitcoin: Prettier in a shiny regulated wrapper?' (2017) 17 *Without Prejudice* 3 at 26 and S Roux 'Bitcoin: the business of blockchain' (2018) 17 *Without Prejudice* 2 at 21.
[32] D van der Merwe et al op cit note 30 at 1.
[33] A Nieman op cit note 3 at 1988.
[34] A Nieman op cit note 3 at 1988 and U Ramracheya 'The dawn of our tech-economy: an introduction to bitcoin and cryptocurrency' (2017) 17 *Without Prejudice* 11 at 34.
[35] Intergovernmental Fintech Working Group op cit note 15 at 13. The Twin Peaks model is discussed in detail in Chapter 4.
[36] Intergovernmental Fintech Working Group op cit note 15 at 13.
[37] South African Reserve Bank National Payment System Department *National Payment Systems Framework and Strategy: Vision 2025* (2018) at 6.

Conduct of Financial Institutions Bill, 2018 and financial services laws, the issuing of policy guidelines and consumer protection measures. Other regulatory approaches include the issuing of a Fintech Bill specifically regulating cryptocurrencies and its concomitant industry.

The law is notoriously slow to change, partly because its development is usually in reaction to new challenges or changed circumstances.[38] Thus, how South African financial regulators develop regulatory approaches to cryptocurrencies will be an interesting trajectory to track in the legal sphere.

1.2. STATEMENT OF PURPOSE

The primary purpose of this research is to critically examine the South African regulatory position on cryptocurrencies. Further, to investigate the applicability of existing South African financial legislation to cryptocurrencies and to analyse the position of international jurisdictions to determine possible regulatory approaches for implementation in South Africa. Since each jurisdiction has adopted different approaches to the regulation of cryptocurrencies, this analysis will provide useful insights into the nature and extent of regulation from which lessons may be learnt for the advancement of cryptocurrency regulation in South Africa. Following this examination and analysis, the purpose is to propose an appropriate way forward for South Africa.

Finally, there is a scarcity of South African legal literature on cryptocurrencies. Thus, the tertiary purpose of this research is to add to and develop the legal academic literature on cryptocurrencies within the South African landscape, with the aspiration that it can be used as a credible source for further research and analysis. Moreover, the cryptocurrency landscape is still new and rapidly changing, therefore, it is not possible to fully predict its future direction or identify specific long-term regulatory approaches.[39] Thus, the purpose is to propose interim regulatory approaches for the South African regulation of cryptocurrencies.

[38] D van der Merwe et al op cit note 30 at 152.
[39] International Monetary Fund op cit note 27 at 7.

1.3. RATIONALE FOR THE STUDY

The underlying rationale for this research is to encourage South African financial regulators to develop a specific and coherent legal and regulatory framework for its cryptocurrency landscape. There are several examples which indicate the increased use of cryptocurrencies in South Africa. For example, there are approximately 550, 000 – 650, 000 South African active cryptocurrency users, 60, 000 of whom invested in cryptocurrencies in 2018.[40] In 2017, the growth of the use of Bitcoin in South Africa was unusually high coinciding with political events such as the downgrading of the local currency debt to junk status in November.[41] For example: a trading platform called eToro reported that the number of new South African users speculating on the Bitcoin price on that platform increased by 671% between January and November, surpassing growth in other regions.[42] Moreover, the recent case of a Bitcoin exchange company called BTC Global which defrauded South African investors of 1 billion Rand,[43] is evidence that the use of cryptocurrencies for illicit activities within South Africa is on the horizon. Moreover, there are more than 2000 different types of cryptocurrencies in circulation which is increasing as new schemes, through Initial Coin Offerings (ICOs) are continually launched.[44]

Therefore, the existence of cryptocurrencies in South Africa cannot be ignored. Regulation will ultimately provide the public with assurance of the safety of cryptocurrencies to effect payments and other financial activities and ensure that cryptocurrency users and intermediaries are aware of their rights and obligations during cryptocurrency transactions, thus, preventing exploitation of the technology. Conversely, developments in South Africa will set benchmarks for cryptocurrency regulation in other jurisdictions.

[40] S Beckbessinger & S Dingle 'Research Report: South Africans, Cryptocurrencies and Taxation' at 7, available at *https://www.blockchainacademy.co.za/wp-content/uploads/2018/09/SA-Cryptocurrencies-Research-Report.pdf*, accessed on 31 December 2018.
[41] Ibid at 11.
[42] Ibid.
[43] M Toyana 'South Africa investigates R1bn Bitcoin Ponzi scam' *Money web 25* May 2018 at para 1, available at *http://www.moneyweb.co.za*, accessed on 16 July 2018.
[44] S Beckbessinger & S Dingle op cit note 40 at 6. The concept of ICOs is discussed in Chapter 2 in section 2.7.

1.4. RESEARCH QUESTIONS

1.4.1. What are cryptocurrencies?

1.4.2. How are cryptocurrencies regulated in South Africa?

1.4.3. How are cryptocurrencies regulated in international jurisdictions particularly the USA, Australia and Japan?

1.4.4. Can South Africa's existing financial legislation accommodate the regulation of cryptocurrencies?

1.4.5. Given South Africa's non-regulation of cryptocurrencies, what interim solutions are available to bring cryptocurrencies within a legal and regulatory framework in South Africa?

1.5. RESEARCH METHODOLOGY

This research will employ the qualitative research method comprising solely of desktop research. It will utilise primary resources particularly: national and international legislation and relevant international case law.[45] Further, secondary resources of national and international origin are utilised including, government policy papers; academic journal articles; academic theses and internet articles.

1.6. CHAPTER OUTLINE

Chapter 1 sets out the background information to this research and provides an understanding of the main aims of this research. It further, discusses the purpose and rationale of this research, highlighting the overall significance of this research. In addition, the research questions which this research aims to answer and the method of research undertaken throughout this research are set out in this chapter.

Chapter 2 discusses the concept of cryptocurrencies and the relevant intermediaries supporting the acquisition, trade and use of cryptocurrencies. It also introduces the concept of ICOs.

Chapter 3 analyses the South African position on the regulation of cryptocurrencies.

[45] There is no case law regarding cryptocurrencies in South Africa. Case law on cryptocurrencies at an international level are limited, however, it is necessary that the cases which are relevant are briefly discussed. This will provide the South African judiciary with international precedent to follow, if they are faced with deciding matters relating to cryptocurrencies in the future.

Chapter 4 provides a critical analysis on the applicability of the relevant South African financial legislation to cryptocurrencies.

Chapter 5 sets out the position of international jurisdictions particularly the USA, Australia and Japan on the regulation of cryptocurrencies.

Chapter 6 provides an evaluation of the main findings of this research and concludes by recommending potential interim regulatory approaches to regulate cryptocurrencies in South Africa.

CHAPTER 2: AN INTRODUCTION TO CRYPTOCURRENCIES IN SOUTH AFRICA

2.1. CHAPTER OVERVIEW

This chapter discusses the legal uncertainty surrounding the definition of cryptocurrencies in South Africa. It further discusses the concept of cryptocurrencies which is informed by an understanding on the cryptocurrency transaction process and the common types of cryptocurrencies used in South Africa. In addition, it discusses the intermediaries supporting the cryptocurrency landscape namely: cryptocurrency exchanges (exchanges); wallet providers; miners and merchants. In addition, it introduces the recent emergence of Initial Coin Offerings (ICOs).

2.2. THE DEFINTION OF CRYPTOCURRENCIES IN SOUTH AFRICA

Currently, there is no firm definition of cryptocurrencies in South Africa. The definition of cryptocurrencies varies amongst its financial regulators. The SARB refers to cryptocurrencies as 'decentralised convertible virtual currencies that interact with the real economy',[46] whereas, the SANT refers to cryptocurrencies as:

> 'Units of accounts that is digitally or electronically created and stored. Members of the virtual community agree to accept these units as a representation of value in the same way that currency is accepted. In contrast to traditional currencies, cryptocurrencies operate without the authority of central banks, and are therefore not regulated.'[47]

On the other hand, the SARS, refers to cryptocurrencies as: 'internet based digital currencies existing wholly in the virtual realm'.[48] Until recently, the Crypto Assets Regulatory Working Group (CARWG) proposed cryptocurrencies to be termed crypto-assets which are defined as:

> 'Digital representations or tokens that are accessed, verified, transacted and traded electronically by a community of users. Crypto-assets are issued electronically by decentralised entities and have no legal tender status, and consequently are not considered as electronic money either. It therefore does not have statutory compensation arrangements. Crypto-assets have the ability to be used for payments (exchange of such value) and for investment purposes by crypto-asset users. Crypto assets have the ability to function as a medium of exchange, and/or unit of account and/or store of value within a community of crypto asset users.'[49]

[46] South African Reserve Bank National Payment System Department op cit note 4 at 4.
[47] South African National Treasury op cit note 8 at 1.
[48] South African Revenue Service op cit note 11 at para 5.
[49] Intergovernmental Fintech Working Group op cit note 16 at 9.

Considering these varying definitions of cryptocurrencies, it is evident that there is legal uncertainty surrounding the definition of cryptocurrencies in South Africa. South African financial regulators clearly lack an overall understanding of the cryptocurrency landscape involving its technical concept, the cryptocurrency transaction process, the types of cryptocurrencies in use, the intermediaries supporting its use and the concept of ICOs. It is submitted that a critical overall understanding of cryptocurrencies and its concomitant industry is needed before adopting firm definitions of cryptocurrencies. Consequently, this will assist in regulation that efficiently caters for every element of cryptocurrencies and will avoid regulatory arbitrage.

2.3. THE TECHNICAL CONCEPT OF CRYPTOCURRENCIES

Technically, cryptocurrencies are regarded as decentralised convertible virtual currencies (DVCs) protected by cryptography and function through a global computerised ledger system called the blockchain.[50]

(a) Decentralised:

In contrast to real currencies, cryptocurrencies are not controlled by a central regulatory authority which would otherwise function as a third party by issuing the currency or establishing the rules for its use.[51] Instead, the central regulatory authority is replaced by a framework of internal protocols that govern the operation of the system and allow the verification of transactions to be performed by the system participants themselves.[52]

(b) Convertible:

Cryptocurrencies can be exchanged for real currencies and used for the payment of goods and services in the real economy.[53] The convertibility of cryptocurrencies is dependent upon persons

[50] South African Reserve Bank National Payment System Department op cit note 4 at 2-4.
[51] A Nieman op cit note 3 at 1983. This means that cryptocurrencies are not controlled by a bank, government or other financial institution. Therefore, cryptocurrencies have no direct links to the laws of any bank, government or other financial institution. The concept of decentralisation provides cryptocurrencies with advantages over real currencies. For example, the interest rates usually chargeable on traditional banking accounts have no effect on cryptocurrencies, and the rate of inflation that potentially diminishes the purchasing power of real currencies has no effect on the value of cryptocurrencies - available at J De Mink op cit note 24 at 31.
[52] International Monetary Fund op cit note 27 at 9.
[53] South African Reserve Bank National Payment System Department op cit note 4 at 4.

making offers for cryptocurrencies and others accepting them.[54] Therefore, its convertibility is not guaranteed by law.[55]

(c) Virtual Currencies (VCs):

Cryptocurrencies are regarded as a subset of VCs.[56] VCs are defined as:

> 'Digital representations of value that can be digitally traded and function as: a medium of exchange, a unit of account and a store of value but does not have legal tender status.'[57]

This means that cryptocurrencies possess the ability to facilitate transactions,[58] provide a common measure of the value of the goods and services being exchanged,[59] and can be stored for a period of time yet still remain valuable in exchange.[60] Therefore, cryptocurrencies possess the same economic functions as money.[61] The use of cryptocurrencies, however, are limited as they only fulfill these functions by agreement within the community of the users of cryptocurrencies.[62] Money, on the other hand, fulfil these functions because the state intends for it to fulfill these functions.[63] Therefore, although cryptocurrencies possess the same economic functions as money, they do not comprise the legal concept of money.[64]

(d) Cryptography:

Cryptography is the development of encryption methods[65] used to authorise transactions between parties without depending on a third party.[66] Essentially the use of cryptography ensures that

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[54] Financial Action Task Force op cit note 6 at 5.
[55] Ibid.
[56] Ibid. The FATF divides VCs into two basic types: convertible and non-convertible VCs. Convertible VCs are cryptocurrencies as discussed here in Chapter 2 and the focus of this research. Non-convertible VCs are specific to a specific virtual domain or world such as Amazon.com and are subject to the rules of that specific virtual domain world. Non-convertible VCs cannot be exchanged for real currencies.
[57] Financial Action Task Force op cit note 6 at 5. The concept of legal tender is explained in Chapter 3 in section 3.2 (a).
[58] By virtue of cryptocurrencies being regarded as a medium of exchange.
[59] By virtue of cryptocurrencies being regarded as a unit of account. The unit of account of Bitcoin is measured in BTC.
[60] By virtue of cryptocurrencies being regarded as a store of value.
[61] International Monetary Fund op cit note 27 at 16.
[62] Financial Action Task Force op cit note 6 at 4.
[63] International Monetary Fund op cit note 27 at 16.
[64] Intergovernmental Fintech Working Group op cit note 16 at 31-32.
[65] In computing, encryption is the method by which data is converted from a readable form to an encoded version that can only be decoded by another entity if they have access to a decryption key. Available at: Techtarget 'Definition of Encryption' available at *http://www.searchsecurtiy.techtarget.com/definition/encryption*, accessed on 4 January 2019.
[66] M Tsukerman 'The Block is Hot: A Survey of the State of Bitcoin Regulation and Suggestions for the Future' (2015) 30 *Berkeley Technology Law Journal* 385 at 1136.

transactions are secure and the identities of the parties remain anonymous.[67] Cryptocurrencies are difficult to counterfeit because of this security feature.[68]

(e) The Blockchain:

The underlying technology behind cryptocurrencies is the blockchain which is defined as: a shared record keeping and processing system or public ledger account that records every cryptocurrency transaction that has been executed.[69] The objective of the blockchain is to enable transactions to occur within a system of decentralised trust, where there is a shift from trusting people to trusting mathematics.[70]

2.4. THE CRYPTOCURRENCY TRANSACTION PROCESS

The system of decentralised trust can be best understood within the context of a transaction as it propagates through the cryptocurrency network.[71] This demonstrates how transactions can occur without the need for a trusted financial institution to control the transaction process. Generally, a cryptocurrency transaction occurs as follows:

(a) Obtaining cryptocurrencies

To interact on the cryptocurrency network users first need to download the relevant cryptocurrency software.[72] Once connected to the network, users may obtain cryptocurrencies by either exchanging real currencies for cryptocurrencies and vice versa on an exchange; accepting cryptocurrencies through the sale of goods and services; purchasing cryptocurrencies from a Cryptocurrency Automated Teller Machine (CATM/s) and/or mining for cryptocurrencies.[73]

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[67] N Plassarass 'Regulating digital currencies: Bringing Bitcoin within the reach of the IMF' (2013) 14 *Chicago Journal of International Law* 1 at 385.
[68] J De Mink op cit note 24 at 31.
[69] T Quaker & G Wagenaar 'Banking and Finance in Africa: Fintech-overview and payments' (2017) 17 *Without Prejudice* 10 at 17.
[70] M Atzori 'Blockchain technology and decentralised governance: Is the state still necessary?' (2017) 6 *Journal of Governance and Regulation* 1 at 46.
[71] J Douguet 'The nature of the form: Legal and Regulatory issues surrounding the Bitcoin Digital Currency System' (2013) 73 *Louisiana Law Review* 4 at 1126.
[72] E Murphy, M Murphy, M Seitzinger 'Congregational Research Service Report: Bitcoin, questions, answers and analysis of legal issues' at 2, available at *https://digital.libarary.unt.edu,* accessed on 29 November 2019.
[73] Intergovernmental Fintech Working Group op cit note 16 at 10.

(b) Storing cryptocurrencies

Once a user has obtained cryptocurrencies, they must store them in a virtual wallet[74] which securely stores, sends and receives cryptocurrencies through the management of public and private cryptographic keys.[75] The public key is regarded as an address listed on the blockchain which acts as the destination at which a party receives cryptocurrencies.[76] This public key address does not contain information about parties ensuring their identities remain anonymous.[77] The private key is used to authorise a transfer of cryptocurrencies to the other party's public key address ensuring the security of the transaction,[78] as a party's account can only be accessed, and funds can only be extracted by a party with the associated private key.[79]

There are 2 common types of virtual wallets: a local wallet which can be downloaded on a user's smart device, or an online wallet which acts as an online account managed by a wallet provider.[80] Once a wallet is established cryptocurrencies can be traded or used to purchase goods and services, or other cryptocurrencies.[81]

(c) Cryptocurrency payment transactions

(i) The payer digitally signs a payment instruction using their private key to request a payment, and the recipient verifies the authenticity of the payment instruction by using the payer's public key.[82]

(ii) Thereafter, a process called mining begins involving the computer being put to work to solve complex mathematical problems to verify cryptocurrency transactions.[83]

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[74] N Kaplanov 'Nerdy Money: Bitcoin, the Private Digital Currency, and the Case against its Regulation' (2012) 25 *Loyola Consumer Law Review* 111 at 124.

[75] G Hileman & M Rauchs 'Global Cryptocurrency Benchmarking Study' at 50, available at *https://www.jbs.cam.ac.uk/fileadmin/user_upload/researc/centres/alternative-finance/downloads/2017-global-cryptocurrency-benchmarking-study.pdf,* accessed on 19 October 2018. See: explanation on cryptography in 2.2 (d) above.

[76] N Plassarass op cit note 67 at 1136.

[77] N Plassarass op cit note 67 at 1137. Although cryptocurrency users enjoy a much higher level of privacy than users of traditional digital-transfer services, staying completely anonymous can be difficult.

[78] N Plassarass op cit note 67 at 1136.

[79] N Plassarass op cit note 67 at 385.

[80] Y Zhao 'Cryptocurrency brings new battles into the currency market' at 97, available at *https://pdfs.semantic scholar.org/,* accessed on 19 October 2019. Wallet providers are discussed in detail in section 2.6 (c).

[81] Ibid.

[82] Norton Rose Fulbright 'Deciphering cryptocurrencies: A global legal and regulatory guide' at 14, available at *https://www.nortonrosefulbright.com/en/knowledge/resources-and-tools/fintech-law-and-regulation/deciphering-cryptocurrencies,* accessed on 5 April 2018.

(iii) After verification, a chain of transactions in the form of a block is created and added onto the network to form the blockchain.[84] Transactions become a public record on the blockchain and the transfer of cryptocurrency from the payer to the payee is confirmed.[85] The transaction becomes irreversible and the network prevents a user from illicitly re-spending a cryptocurrency.[86]

(iv) If a miner's computer is the first computer to solve the mathematical problem, he is awarded with cryptocurrencies.[87] Thereafter, the miner introduces cryptocurrencies into the public domain by either using them to purchase goods and services from a merchant who accepts cryptocurrency as payment, or by selling them to cryptocurrency exchanges.[88]

2.5. THE TYPES OF CRYPTOCURRENCIES

There are three generations of cryptocurrencies namely: first, second and third generation cryptocurrencies.[89] Financial regulators must understand the types of cryptocurrencies prevalent in the cryptocurrency market as their differences and similarities are crucial in designing regulation for cryptocurrencies.[90]

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[83] C Reyes 'Moving beyond bitcoin to an endogenous theory of decentralised ledger technology regulation: An initial proposal' (2016) 61 *Villanova Law Review* 191 at 198.
[84] K Mitchell 'Bitcoin from the beginning' (2014) 14 *Without Prejudice* 2 at 62.
[85] Norton Rose Fulbright op cit note 82 at 14.
[86] Ibid.
[87] Norton Rose Fulbright op cit note 82 at 14.
[88] Independent Community Bankers of America *Virtual Currency Risks and Regulation* (2014) at 9.
[89] K Spurjeon, S Sahu, A Dutta 'Survey on cryptocurrency technology' (2018) 8 *International Journal of Advanced Management, Technology and Engineering Sciences* 3 at 643. This research only focuses on first generation and second generation cryptocurrencies. The reason being that third generation cryptocurrencies are not in large scale use as compared to first-generation and second generation cryptocurrencies. There is no specific example of third generation cryptocurrencies, however, they enable the interaction with other blockchains or other cryptocurrencies. The main objective of third generation cryptocurrencies is the need for a governance system, reduced scalability, and interoperability. An example of a third generation cryptocurrency is Cardano.
[90] H Jabontinsky 'The regulation of cryptocurrencies between a currency and a financial product' 2018 *SSRN Electronic Journal* at 12.

(a) First Generation cryptocurrencies

First generation cryptocurrencies are the first application of the blockchain technology designed for the decentralisation of currency and payment transactions.[91] Bitcoin and its alternative coins (Alt-coins) are first generation cryptocurrencies.[92]

(i) Bitcoin

Bitcoin was launched in 2009 in a whitepaper entitled *Bitcoin: A Peer-to-Peer electronic cash system*, by an anonymous group of programmers called Satoshi Nakamato (Nakamato).[93] Nakamato defines Bitcoin as:

> 'A purely peer-to-peer version of electronic cash which allows online payments to occur directly from one party to another, without relying on a trusted financial institution.'[94]

According to the Mybroadband Survey 2018, Bitcoin is the most popular cryptocurrency used in South Africa today.[95]

(ii) Alt-coins

Bitcoin has been modified several times for the purpose of developing Alt-coins.[96] Alt-coins use the same functional blocks as Bitcoin, therefore, they are not significantly different from Bitcoin.[97] There are, however, notable versions of alt-coins which introduced significant innovations to the Bitcoin model such as Litecoin, being one of the first and most successful Alt-coins.[98] It is commonly referred to as the "silver" to Bitcoin's "gold" and borrows the main concepts from Bitcoin, however, alters key parameters.[99] For example, it employs a different mining algorithm[100] increasing the conformation time of a transaction.[101]

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[91] M Swan 'Blockchain: Blueprint for a New Economy' at 21, available at *https://scholar.google.co.za/scholar?hl=en&as_sdt=0%2C5&q=M+Swan+Blockchain%3A+Blueprint+for+A+New+Economy&btnG*, accessed on 6 April 2018.
[92] K Spurjeon, S Sahu, A Dutta op cit note 89 at 643.
[93] A Nieman op cit note 3 at 1986.
[94] S Nakamato 'Bitcoin: A Peer-to-Peer Electronic Cash System' at 1, available at *https://www.bitcoin.org/bitcoin pdf*, accessed on 1 March 2018.
[95] Staff writer 'How much money South Africans made and lost in bitcoin' *My BroadBand* 9 May 2018 at para 1, available at *https://mybroadband.co.za*, accessed on 8 September 2018.
[96] A Pirjan, D Petrosanu, M Huth 'Research issues regarding the bitcoin and alternative coins digital currencies' 2015 *Journal of Information Systems and Operations Management* at 4.
[97] Ibid at 5.
[98] Ibid at 7.
[99] G Hileman & M Rauchs op cit note 75 at 17.
[100] Ibid.

As new Alt-coin variations continue to emerge, it presents financial regulators with a challenge in establishing firm definitions of cryptocurrencies.[102] In South Africa, cryptocurrency exchanges such as Ice Cubed and Altcointrader facilitate the acquisition and trading of Alt-coins.[103]

(b) Second Generation cryptocurrencies

Second generation cryptocurrencies such as Ethereum demonstrate a significant difference to first generation cryptocurrencies because they enable non-monetary transactions.[104]

(i) Ethereum

Ethereum was launched in 2015 by Vitalik Buterin in a white paper entitled: *Ethereum White Paper: A next Generation Smart Contract and Decentralised Application Platform.*[105] Ethereum uses the blockchain concept for more than money to enable applications using the blockchain to generate other cryptocurrencies and tokens, to represent financial instruments, the ownership of property (referred to as "smart property") and the development of smart contracts which encode arbitrary state transition functions allowing users to create any of the above-mentioned systems.[106] Ethereum has its own built in currency called Ether which is purchased for allowing individuals, businesses and governments to run their own applications on the Ethereum blockchain.[107]

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[101] S Nagpal 'Cryptocurrency: The revolutionary future money' at 7, available at *https://ssrn.com/abstract=3090813* , accessed on 6 April 2018.

[102] S Hughes & S Middelbrook 'Advancing a Framework for Regulating Cryptocurrency Payments Intermediaries' (2015) 32 *Yale Journal on Regulation* 2 at 505.

[103] Cryptocurrency exchanges are discussed in section 2.6 (a).

[104] G Hileman & M Rauchs op cit note 75 at 16.

[105] V Buterin 'Ethereum White Paper: A next Generation Smart Contract and Decentralised Application Platform' at 1, available at *blockchainlab.com/pdf/Ethereum_white paper a_next_generation_smart_contract_and_decentralised _application_platform-vitalik-buterin.pdf*, accessed on 26 May 2019.

[106] Ibid. See, S Govender 'Smart Contracts vs Traditional Contracts: Same but Different' *Webber Wentzel* 13 March 2019, available at *https//www. webberwentzel.com/News/Pages/smart-contracts-vs-traditional-contracts-same-but-different.aspx*, accessed on 10 July 2019.

[107] B Marr 'What is the difference between Bitcoin and Ethereum' *Forbes* 5 February 2018 at para 19, available at *https://www.forbes.com/sites/bernardmarr/2018/02/05/what-is-the-difference-between-bitcoin-and-ethereum/#3771800707c70,* accessed on 5 May 2019.

2.6. CRYPTOCURRENCY INTERMEDIARIES

Cryptocurrency intermediaries are created by the cryptocurrency market and not a central authority such as the government.[108] The relevance of these intermediaries is to serve the cryptocurrency community and add value to financial markets.[109] These intermediaries include: exchanges; CATMs; wallet providers; miners and merchants.[110] Although cryptocurrencies are designed to enable complete decentralisation, the existence of these intermediaries introduce significant economic forces which push toward *de facto* centralisation (the potential to be regulated).[111] Some authors are of the view that these intermediaries can be subject to traditional models of financial intermediary regulation because they provide similar services to traditional financial service providers and pose similar credit and liquidity risks to consumers, market participants and national economies.[112]

(a) Exchanges

Exchanges serve as the main bridge between cryptocurrencies and the broader economy.[113] They, however, do not regard themselves as financial service providers, nor regard any of the information they provide as financial advice.[114] An analysis of the services provided by exchanges, however, reveal similarities to some traditional financial service providers. This analysis revealed that exchanges:

(i) Facilitate the conversion of cryptocurrencies to real currencies and vice versa.[115] This resembles the services provided by traditional foreign exchange services, which is similar to a traditional foreign exchange market where the price of cryptocurrencies floats against other currencies and is valued by the principle of supply and demand.[116]

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[108] O Marian 'A conceptual framework for the regulation of cryptocurrencies' (2016) 82 *University of Chicago Law Review* 53 at 58.
[109] Ibid.
[110] Intergovernmental Fintech Working Group op cit note 16 at 10 and 17.
[111] R Bohme, N Christin, B Edelman et al 'Bitcoin: Economics, Technology, and Governance' (2015) 29 *Journal of Economic Perspectives* 2 at 219 - 220.
[112] O Marian op cit note 108 at 58 and B Marr op cit note 107 at 498.
[113] International Monetary Fund op cit note 27 at 36.
[114] See, Luno 'Terms of Use' available at *https://www.luno.com.southafrica*, accessed on 31 August 2018 and Ice 3x 'Terms and Conditions' available at *https://ice3x.co.za*, accessed on 31 August 2018.
[115] E Murphy, M Murphy, M Seitzinger op cit note 72 at 1137.
[116] N Plassarass op cit note 67 at 386.

(ii) Provide a trading platform for users to buy and sell cryptocurrencies at the price at which they are willing to trade.[117] This resembles the services provided by traditional securities exchange services.[118]

(iii) Allow users to deposit and withdraw money from cryptocurrency accounts.[119] This resembles the services provided by a commercial bank.[120]

(iv) Offer integrated wallet functionality to facilitate cryptocurrency payment transactions or payments processing for merchants who do not wish to accept cryptocurrencies directly.[121] This resembles the services provided by a commercial bank.[122]

In South Africa, popular exchanges include Luno, Ice Cubed and Altcointrader which share the following features:

(i) Payment is accepted in the form of cash or electronic funds transfer (EFT).[123]

(ii) The relationship between an exchange and persons who register for or open an account with an exchange is contractual in nature.[124] This is evidenced by their terms of service which indicate that persons who register for or open an account with the exchange, the terms of service constitute a legally binding agreement between the user and the exchange.[125]

(iii) Exchanges self-regulate themselves by implementing customer due diligence and anti-money laundering procedures mainly to combat the use of cryptocurrencies for illicit activities.[126] It is currently at the discretion of the exchange to implement such measures.[127]

[117] R Marshall 'Bitcoin: Where Two Worlds Collide' (2015) 27 *Bond Law Review* 1 at 96.
[118] This is explained in detail in Chapter 4 in section 4.2 (e) (iii).
[119] See, Luno 'Terms of Use' available at *https://www.luno.com.southafrica*, accessed on 31 August 2018 and Ice 3x 'Terms and Conditions' available at *https://ice3x.co.za*, accessed on 31 August 2018.
[120] This is explained in detail in Chapter 4 in section 4.2 (d).
[121] Independent Community Bankers of America op cit note 88 at 11.
[122] This is explained in detail in Chapter 3 in section 4.2 (d).
[123] See, Luno 'Terms of Use' available at *https://www.luno.com.southafrica*, accessed on 31 August 2018 and Ice 3x 'Terms and Conditions' available at *https://ice3x.co.za*, accessed on 31 August 2018.
[124] Ibid.
[125] Ibid.
[126] Ibid.
[127] Intergovernmental Fintech Working Group op cit note 16 at 15.

Exchanges represent the most vulnerable intermediaries in the cryptocurrency system for conducting financial crime and other illicit activities.[128] This is evidenced by the failure of some of the most popular international exchanges such as Silk Road and Mt. Gox.[129] Therefore, exchanges are the most logical points for financial regulators to adopt regulation.[130] The general trend in the international community is to apply anti-money laundering and customer due diligence measures to assist financial regulators in combatting the use of cryptocurrencies for financial crime and other illicit activities.[131]

(b) CATM/s

CATMs have also been developed as a means of buying and selling cryptocurrencies where users insert cash or cards to exchange monetary value for cryptocurrency and extract cash as the proceeds of sale.[132] Purchased cryptocurrencies are immediately delivered to the user's virtual wallet.[133] Compared to conventional ATMs, CATMs are not used for the purpose of making payment for goods or services.[134] The sales and purchases of cryptocurrencies through CATMs are settled immediately.[135] In 2018, South Africa installed its first multi-purpose CATM in Johannesburg at Northworld Spar.[136] South African cryptocurrency users are able to purchase cryptocurrencies at the CATM and exchange cash for cryptocurrencies without access to their bank account, however, they are unable to withdraw cryptocurrency or cash from it.[137]

(c) Wallet Providers

Wallet providers are entities that provide cryptocurrency wallets and facilitate participation in the cryptocurrency system by allowing users, exchanges and merchants to easily conduct cryptocurrency transactions.[138] Wallet providers maintain the customer's cryptocurrency balance

[128] M Tsukerman op cit note 66 at 1153.
[129] M Tsukerman op cit note 66 at 1148-1150.
[130] M Tsukerman op cit note 66 at 1153.
[131] As will be shown in Chapter 5 of this research.
[132] Australian Securities and Investment Commission *Senate inquiry into digital currency: Submission by the Australian Securities and Investments Commission* (2014) at 13.
[133] Ibid.
[134] Ibid.
[135] Ibid.
[136] T Rangongo 'Watch: SA's first ATM for Bitcoin and other cryptocurrencies in action' *Business Insider South Africa* 21 May 2018 at para 1, available at *https://www.businessinsider.co.za/sas-first-cryptocurrency-atm-officially-launches-today-here-is-how-it-works-2018-5*, accessed on 4 June 2019.
[137] Ibid.
[138] Ibid.

and provide storage and transaction security.[139] Some authors describe wallet providers as operating in a similar fashion to commercial banks because they provide safekeeping services of cryptocurrencies similar to commercial banks operating a customer's bank account.[140] The operation of a virtual wallet is similar to the operation of a bank account, where the public key regarded as the destination address of the wallet resembles a bank account number and the private key used to execute a transaction resembles a PIN to a bank account.[141]

(d) Merchants

Merchants are retailers, businesses and companies that accept payment in cryptocurrency.[142] In South Africa, there are several online and offline merchants that accept cryptocurrencies particularly Bitcoin as a payment method.[143] Online merchants include: South Africa's largest online retailer Takealot.[144] Offline merchants include retailers of food and household appliances such as Checkout, and Pick n' Pay which demonstrated their openness to accept Bitcoin as a payment method by piloting a trial project in 2017. [145] The trial project tested the effectiveness of Bitcoin as an alternative payment method, however, Pick n' Pay is only likely to implement a solution once regulation for cryptocurrencies is established.[146] In addition, Thomson Wilks is one of the first law firms in South Africa to accept Bitcoin as a payment method from its clients.[147]

Merchants can accept cryptocurrencies by either accepting cryptocurrency through a wallet, or engage the services provided by a payment gateway which processes payments for cryptocurrency accepting merchants and provide shopping cart integration and point of sale

[139] Ibid.
[140] E Murphy, M Murphy, M Seitzinger op cit note 72 at 1137 and R King 'What is a Cryptocurrency Wallet and How does it Work?' *BitDegree* 9 July 2019, available at *https:www.bitdegree.org/tutorials/cryptocurrency-wallet*, accessed on 14 July 2019.
[141] Ibid.
[142] E Moreau '13 Major Retailers and Businesses that Accept Bitcoin' *Lifewire* 2 July 2019, available at https:www.lifewire.com/big-sites-that-accept-bitcoin-payments-3485965, accessed on 14 July 2019.
[143] Ibid.
[144] A Nieman op cit note 3 at 1996.
[145] W Ayugi '10 places where you can spend your bitcoins in South Africa' *Bitcoin Africa IO* 23 May 2017, available at *https:// Bitcoin Africa.io,* accessed on 9 September 2018.
[146] D Mcleaod 'Pick n Pay in in-store trial of bitcoin payments' *Tech Central* 16 September 2017 at para 6, available at *https://techcentral.co.za*, accessed on 09 September 2018.
[147] K Douglas 'Why a South African law firm is accepting bitcoin as a payment option' *How we made it in Africa* 5 December 2014 at para 1, available at *https:// www.thomsonwilks.co.za/acts-articles,* accessed on 09 September 2018.

solution services.[148] In South Africa, a payment gateway called Payfast enabled cryptocurrency users to convert Bitcoin payments into real currency[149] and allowed merchants to accept Bitcoin from buyers locally and internationally.[150] In 2014, a South African based mobile payment company, Walletec, partnered with an international Bitcoin payment processor, Bitpay to allow South African merchants who entail the services of Walletec to accept payment in Bitcoin.[151]

(e) Miners

Mining is the process in which cryptocurrencies are unearthed.[152] Cryptocurrencies, however, are not created or generated.[153] Mitchell is of the view that terms such as created and generated are problematic for regulation because they imply that cryptocurrencies are controlled by human intervention.[154] The main purposes of mining is to introduce cryptocurrencies into the system, where miners use the cryptocurrencies they unearth to purchase goods and services, or they sell cryptocurrencies to exchanges.[155] Miners also enable the decentralisation, security and synchronisation of the cryptocurrency network.[156] Miners operate across all jurisdictions, hence, no individual has control over the cryptocurrency network. [157] Therefore, it is submitted that the regulation over miners is challenging.[158] The mining activity, in South Africa is prevalent for the following reasons: [159]

(i) The Mybroadband 2017 cryptocurrency survey revealed that 60% of South Africans mine cryptocurrency despite its price volatility.[160]

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[148]A Madeira 'How to accept Bitcoin or Cryptocurrency as a merchant? *Cryptocompare* 12 February 2015 at para 1, available at *https:www.cryptocompare.com/exchanges/guides,* accessed on 23 December 2018.

[149] A Nieman op cit note 3 at 1996 and J Mkane 'Bitcoin and online payments in South Africa' *My BroadBand* 29 January 2018 at para 5-6, available at *https//mybroadband.co.za*, accessed on 1 September 2018.

[150] PayFast 'Accept Bitcoin payments with PayFast' at para 1 available at *https://www.payfast.co.za/bitcoin,* accessed on 01 September 2018. However, during July 2019 PayFast announced that it ended its association with Bitcoin. For a discussion on the reasons behind PayFast ending its association with Bitcoin, see, PayFast 'Ending support for Bitcoin' available at *https://www.payfast.co.za/bitcoin*, accessed on 01 September 2018.

[151] Staff reporter 'Walletec integrates Bitpay for bitcoin PoS integration of SA merchants' *VentureBurn* 9 October 2014 at para 1, available at *https:www.ventureburn.com/2014/10/walletec-integrates-bitpay-bitcoin-pos-integration-sa-merchants,* accessed on 23 December 2018.

[152] K Mitchell op cit note 84 at 61.

[153] Ibid.

[154] K Mitchell op cit note 84 at 62.

[155] Independent Community Bankers of America op cit note 88 at 9.

[156] International Monetary Fund op cit note 27 at 9.

[157] A Nieman op cit note 3 at 1987.

[158] This is discussed in detail in Chapter 4 section 4.2 (d) (i).

[159] Ibid.

[160] Staff Writer 'How much money South Africans made from crypto-mining' *My BroadBand* 10 May 2018 at para 8, available at *http://mybroadband.co.za*, accessed on 07 September 2018.

(ii) Cape Town is considered one of the top 50 nodes in the Bitcoin network.[161] This is indicative that most of the mining activity in South Africa occurs in Cape Town.

(iii) There are several cryptocurrency mining suppliers operating in South Africa such as BitMart and Bitgear which sell cryptocurrency mining equipment and facilitate cloud mining services.[162]

(iv) The South African Internet Service Providers (ISPs) have explored hosting mining services.[163] On the members' mailing list of the Internet Service Provider's Association, ISPs have discussed costing models for hosting Bitcoin.[164]

2.7. THE EMERGENCE OF ICOs

ICOs are a new type of financing that offers increased returns for investors and flexible access to funding for its founders, while avoiding the costs of venture capital regulations and intermediary financial obligations.[165] The ICO process is conducted online without the involvement of investment banks or professional venture capitalists and function through the operation of smart contracts which govern the collection and distribution of funds during the lifespan of the ICO.[166] ICOs are defined as: start-up Financial Technology (Fintech) companies initiated to raise capital to fund projects in the underlying business of that start-up Fintech company.[167] Funds are collected from contributors in the form of cryptocurrencies, in exchange for tokens which are distributed once a target amount is achieved in the project.[168]

A token is defined as: a cryptographically secured coupon which embodies a bundle of rights and obligations.[169] The main tokens generated from ICOs are utility tokens which are used to access the company's product or service.[170] Generally, when an investor invests in a token, he/or she is

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[161] Ibid.
[162] Bitmart 'Order now and earn Bitcoin while you wait for your miner' available at *https://www.bitmart.co.za*, accessed on 08 September 2018 and *https://bitgear.co.za*, accessed on 08 September 2018.
[163] Ibid note 3 at 1995.
[164] Ibid.
[165] P Hacker & C Thomale 'Crypto-Securities Regulation: ICOs, Token Sales and cryptocurrencies under EU financial law' at 5, available at *https://www.researchgate.net/publication/329472011_Crypto-Securities_Regulation_ICOs_Token_Sales_and_Cryptocurrencies_under EU_Financial Law*, accessed on 22 April 2019.
[166] Ibid.
[167] A Martinez & N Remolina 'The law and finance of initial coin offerings' Ibero-American Institute for Law and Finance 2018 *SSRN Electronic Journal* at 4.
[168] Ibid.
[169] Intergovernmental Fintech Working Group op cit note 15 at 15.
[170] Ibid.

provided with a right to the future utility of the token, the value of which is derived from the perceived future adoption of the token.[171] Research has shown that financial regulators misconceive the tokens issued in an ICO for cryptocurrencies, however, there is a significant difference between the tokens issued in an ICO and cryptocurrencies.[172] It is submitted that understanding these differences are crucial in determining a firm definition of cryptocurrencies. The tokens are similar to cryptocurrencies, in that they can be transferred across networks and traded on cryptocurrency exchanges, however, they differ in that their value is derived from a representation of something which is usually company equity or access to a service.[173] Their value is not derived from their use as a currency or store of value.[174]

ICOs are not regulated in South Africa and there are no legal requirements that founders must comply with.[175] A market standard not mandated by any legislation or regulatory authority, however, has been developed where coin offerors typically announce the ICO in various cryptocurrency publications such as Cointelegraph, and publish a document called a white paper setting out the overview of the start-up Fintech company's business and the mechanism behind the token's operation.[176] The white paper is sometimes followed by a yellow paper describing in detail the programming behind the business and the token.[177]

There is no central repository of ICOs in South Africa nor are there any obligations on ICOs to report to South African financial regulators, therefore, the amount of active ICOs in South Africa is difficult to determine.[178] There are a few significant ICOs in South Africa such as Newton Partners who operated two ICOs that created a financial services utility token called Dala for crowdfunding purposes.[179] Other start-up Fintech companies include ProsperiProp that operated

[171] Ibid.
[172] This is evidenced by the Crypto Assets Regulatory Working Group definition of crypto-assets where it categorises cryptocurrencies as assets which are issued by decentralised entities, however, it is tokens issued by an ICO which possesses these features and not cryptocurrencies and European Parliament *Cryptocurrencies and blockchain: Legal context and implications for financial crime, money laundering and tax evasion* (2018) at 23.
[173] M Jacoby 'A new investment scheme is doing the rounds-alternative investments' (2018) 2018 *Personal Finance Newsletter* 451 at 5-7.
[174] K Kopke 'How do you classify cryptocurrency as an investment?' (2018) 18 *Without Prejudice* 2 at 9.
[175] Intergovernmental Fintech Working Group op cit note 15 at 15.
[176] K Mitchell 'Blockchain IPOs: capital raising in a crypto-world' (2019) 19 *Without Prejudice* 1 at 8.
[177] Ibid.
[178] Intergovernmental Fintech Working Group op cit note 15 at 8.
[179] Ibid.

an ICO for the purpose of providing international investors with a platform to invest in international property.[180]

As a result of the non-regulation of ICOs in South Africa accompanied by the risks presented by cryptocurrencies, investors are at a greater risk of losing their investment if the project is unsuccessful, especially investors who are not accustomed to venture capital investing.[181]

2.8. CONCLUSION

This research has shown that there is legal uncertainty surrounding the definition of cryptocurrencies in South Africa. To reduce this legal uncertainty and develop a firm definition of cryptocurrencies in South Africa, this chapter sought to understand the technical definition of cryptocurrencies; the cryptocurrency transaction process; the types of cryptocurrencies in use; the intermediaries supporting its use and the emergence of ICOs. It is concluded that cryptocurrencies are:

- intangible and virtual assets of value protected by cryptography and function within a peer-to-peer, computerised and mathematical, globalised and record keeping network called the blockchain;
- decentralised meaning that they are not created, generated nor issued by a central regulatory authority, hence, they are not legal tender. Instead, they are unearthed by system participants of the network called miners;
- not money;
- supported by non-regulated entities such as exchanges; CATMs; wallet providers; miners and merchants, who act as intermediaries during cryptocurrency transactions; and
- not the same as tokens issued by ICOs.

Cryptocurrencies take two forms namely:

(i) First generation cryptocurrencies such as Bitcoin and Litecoin. These are used specifically to make payments and currency transactions such as investments and trading.

[180] Ibid.
[181] M Soni 'Regulation of the ICO: Sitting in the waiting room' *Bowmans* 3 July 2018, available at *https://www.bowmanslaw.com/legal-updates*, accessed on 27 August 2018.

(ii) Second generation cryptocurrencies such as Ethereum. These cannot be used to make daily payments of goods and services, however, they can still act as a store of value for investment purposes. They are mainly used as an application or programme to create other cryptocurrencies or tokens, and can perform financial transactions other than payment transactions.

In considering the concept of cryptocurrencies, the next chapter will set out the regulatory position of South African financial regulators on cryptocurrencies.

CHAPTER 3: THE REGULATORY POSITION OF SOUTH AFRICAN FINANCIAL REGULATORS ON CRYPTOCURRENCIES

3.1. CHAPTER OVERVIEW

This chapter discusses the legal and regulatory position on cryptocurrencies adopted by South African financial regulators namely: The South African Reserve Bank (SARB), the South African National Treasury (SANT) and the South African Revenue Service (SARS). It further discusses key initiatives adopted by South African financial regulators to understand the regulatory implications of cryptocurrencies.

3.2. THE SARB

Currently, there is no direct regulatory and legal framework governing cryptocurrencies in South Africa.[182] The SARB, however, has the authority to publish position papers for the purpose of stating its position on issues affecting the South African payment system.[183] These documents contain policy approaches and procedures which are applicable at a certain time, however, they are not legally binding.[184] They are followed, however, because of their inherent persuasiveness by virtue of them being issued by the SARB.[185] The SARB clarified its position on cryptocurrencies in a position paper issued in 2014 where it considered the following issues:

- whether or not cryptocurrencies are regarded as legal tender in South Africa;
- whether or not cryptocurrencies are regarded as electronic money (E-money) in South Africa;
- the potential risks associated with cryptocurrencies; and
- its regulatory position on cryptocurrencies.

[182] South African Reserve Bank National Payment System Department op cit note 4 at 6 and South African National Treasury op cit note 8 at 4.
[183] A Nieman op cit note 3 at 1989.
[184] Ibid.
[185] Ibid.

(a) Legal tender

The SARB does not consider cryptocurrencies as legal tender.[186] It refers to section 17 of the SARB Act which defines a legal tender of payment of money as:

> 'A tender by the Bank itself, of a note of the Bank or of an outstanding note of another bank for which the Bank has assumed liability in terms of section 15 (3) (c) of the Currency and Banking Act or in terms of any agreement entered with another bank before or after the commencement of this act; and a tender by the Bank itself, of an undefaced and unmutilated coin which is lawfully in circulation in South Africa, and of current mass.' [187]

This means that legal tender in South Africa means bank notes and coins issued by the bank itself, which can be legally offered in payment of an obligation that a creditor is obliged to accept. According to the SARB, cryptocurrencies are not legal tender because they are not issued as coins and banknotes by a bank, nor are creditors obliged to accept cryptocurrencies as forms of payment.[188] Thus, cryptocurrencies should not be used as payment for the discharge of any obligation in a manner that suggests they are a perfect substitute for legal tender.[189]

(b) E-money

The SARB does not regard cryptocurrencies as e-money.[190] E-money is defined as:

> 'Electronic stored monetary value issued on receipt of funds and represented by a claim on the issuer. E-money is generally accepted as a means of payment by persons other than the issuer and is redeemable for physical cash or a deposit into a bank account on demand. Further, the issuance of e-money is regarded as the business of banking as defined in the Banks Act.'[191]

In this regard, while e-money is redeemable for physical cash or a deposit into a bank account on demand, cryptocurrencies are tradeable for cash.[192] Therefore, there is a clear distinction between e-money and cryptocurrencies.[193]

[186] South African Reserve Bank National Payment System Department op cit note 4 at 4.
[187] Ibid.
[188] South African Reserve Bank National Payment System Department op cit note 4 at 4-5.
[189] Ibid.
[190] South African Reserve Bank National Payment System Department op cit note 4 at 5.
[191] Ibid.
[192] Ibid.
[193] Ibid.

(c) Risks

According to the SARB, at this stage cryptocurrencies are neither broad nor evasive to present any significant risk to South Africa's financial stability, price stability or the National Payment System.[194] However, due to the legal uncertainty and unregulated environment in which they exist there are several potential risks which end-users must be aware of when acquiring, trading or using cryptocurrencies.[195] Other risks include risks to the stability of the payment system, for example, where cryptocurrency payment service providers fail to meet their contractual obligations because of the price volatility associated with cryptocurrencies.[196] Consequently, financial stability is affected when there are risks to the payment system.[197]

Further, the anonymous nature of cryptocurrencies enables users to conceal their identity allowing users to use cryptocurrencies as a tool for financial crimes such as money laundering and the financing of terrorism.[198] The low degree of transparency of cryptocurrencies prevents financial institutions from applying Anti-Money Laundering and Counter Financing Terrorism regulations to the cryptocurrency system, thereby, eliminating the additional layer financial institutions provide to guard the payment system from financial crimes.[199] This illustrates that non-face-to-face transactions entail greater risks, therefore, SARB emphasises that the principle of due diligence must be enhanced.[200]

Consumer risks include: the loss or theft of cryptocurrencies; fraud or the unauthorised use of a user's cryptocurrency ownership credentials; transaction processing errors which cannot be reversed due to the irreversibility of cryptocurrency transactions, and the failure of exchanges and wallet providers resulting in inaccessibility of users accounts.[201]

Further, exchanges and wallet providers are not obliged to disclose cryptocurrency risks to consumers.[202] Therefore, if users incur any loss, they have no recourse against exchanges and wallet providers.[203]

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[194] South African Reserve Bank National Payment System Department op cit note 4 at 12.
[195] South African Reserve Bank National Payment System Department op cit note 4 at 6.
[196] South African Reserve Bank National Payment System Department op cit note 4 at 6-7.
[197] South African Reserve Bank National Payment System Department op cit note 4 at 12.
[198] South African Reserve Bank National Payment System Department op cit note 4 at 7-9.
[199] Ibid.
[200] Ibid.
[201] South African Reserve Bank National Payment System Department op cit note 4 at 10.
[202] Ibid.

In addition, the anonymous nature of cryptocurrencies enables cryptocurrency investors to exceed their foreign capital allowance without being detected by an authorised foreign exchange dealer.[204] Finsurv is also prevented from detecting cross border cryptocurrency transactions and the proceeds of these transactions.[205] Moreover, since cross border cryptocurrency transactions are not supported by South African Exchange control regulations, they cannot be authorised by the SARB.[206] Therefore, exchange control regulations are difficult to implement over users who circumvent exchange control regulations using cryptocurrencies.

(d) Regulatory position

The SARB clearly points out that the lack of a proper regulatory framework substantially exacerbates the above mentioned risks.[207] Further, should cryptocurrencies fail, or cryptocurrency intermediaries cease to exist, there is no specific regulatory framework to compensate users for any loss suffered.[208] Therefore, SARB warns users that they might lose their money.[209] The SARB explains that:

> 'The bank does not oversee; supervise; or regulate the [cryptocurrency] landscape; systems; or intermediaries for effectiveness; integrity; or robustness. Consequently, any or all activities related to the acquisition; trading or use of [cryptocurrencies] are performed at the end-user's sole and independent risk and have no recourse to the bank.'[210]

The SARB supports the principle that regulation should follow innovation, thus, it will continue to monitor developments in the cryptocurrency landscape.[211] It, however, emphasises that should the cryptocurrency landscape warrant regulatory intervention, it reserves the right to change its position.[212]

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[203] Ibid.
[204] South African Reserve Bank National Payment System Department op cit note 4 at 11.
[205] Ibid.
[206] Ibid.
[207] South African Reserve Bank National Payment System Department op cit note 4 at 6.
[208] Ibid.
[209] Ibid.
[210] South African Reserve Bank National Payment System Department op cit note 4 at 12.
[211] South African Reserve Bank National Payment System Department op cit note 4 at 13.
[212] Ibid.

3.3. THE SANT

Similarly, the SANT warns users about the risks associated with cryptocurrencies.[213] It strongly advises users to conduct thorough research about investment offers or means of payment involving cryptocurrencies when committing to such transactions.[214] The SANT also points out that dealing in cryptocurrencies is performed at the user's own risk and there is no recourse to South African authorities.[215] It further emphasises that the unregulated status of cryptocurrencies allows merchants to refuse them as a payment method without being in breach of the law.[216] Therefore, cryptocurrencies cannot be classified as legal tender.[217] Further, cryptocurrencies cannot be regarded as a payment method because they are not issued on receipt of funds and their use depends on the other participant's willingness to accept them.[218] Finally, while cryptocurrencies can be bought and sold on various platforms, they are not defined as securities in terms of the Financial Markets Act 19 of 2012.[219] The regulatory standards that apply to the trading of securities, therefore, do not apply to cryptocurrencies.[220]

3.4. RECENT DEVELOPMENTS

South African authorities have been silent on the regulation of cryptocurrencies since the positions adopted in 2014. Until recently, however, key developments have emerged demonstrating their willingness to bring cryptocurrencies within a regulatory framework. These developments will be considered below.

(a) The intention of the SARS and SANT to regulate cryptocurrencies within South Africa's existing tax law framework

The Davis Tax Committee in its Final Report on Base Erosion and Profit Shifting (BEPS) explained that:

> 'The anonymous nature of e-commerce brings with it new challenges to tax compliance. E-commerce creates the following difficulties in: the identification and location of taxpayers, the identification and verification of taxable transactions and the ability to establish a link between

[213] South African National Treasury op cit note 8 at 1.
[214] Ibid.
[215] South African National Treasury op cit note 8 at 2.
[216] Ibid.
[217] Ibid.
[218] Ibid.
[219] Ibid.
[220] Ibid.

> taxpayers and their taxable transactions, thus, creating opportunities for tax avoidance. This is especially so with the development of various electronic payment methods such as Bitcoin.'[221]

It further recommended that the SARS perform a detailed investigation into the nature of cryptocurrency transactions and the options available to monitor them to ensure appropriate legislation and compliance.[222] On 6 April 2018, in response to these concerns, the SARS provided direction relating to the tax treatment of cryptocurrencies. Accordingly, for VAT purposes, those who are involved in the supply of cryptocurrencies are not required to register as a vendor[223] and for income tax purposes normal income tax rules apply to cryptocurrencies.[224] Therefore:

(i) Affected tax payers must declare all related taxable income in the tax year in which it was received or accrued, failing which interest and penalties will be incurred.[225]

(ii) Cryptocurrencies are not regarded as currency for income tax purposes or Capital Gains Tax (CGT) because the word "currency" is not defined in the Income Tax Act 58 of 1962 (ITA). Therefore, cryptocurrencies are not official South African tender, nor are they widely used in South Africa as a payment method and medium of exchange. Thus, cryptocurrencies are regarded as assets of an intangible nature.[226]

(iii) Although cryptocurrencies do not constitute cash, they can be valued to ascertain an amount received or accrued falling within the definition of gross income in the ITA.[227]

(iv) The amount received or accrued can either be taxed on revenue account under "gross income," or as capital in nature in the Eight Schedule to the ITA.[228]

(v) Taxpayers are entitled to claim expenses associated with cryptocurrency accruals or receipts, provided such expenditure is incurred in the production of the taxpayer's income and for the purposes of trade.[229]

(vi) Base cost adjustments can also be made if falling within the CGT paradigm.[230]

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[221] Davis Tax Committee *Final Report on Base Erosion and Profit Shifting: Action 1: Digital Economy* (2016) at 19.
[222] Davis Tax Committee *Report on Tax Administration for the Minister of Finance* (2017) at 24.
[223] South African Revenue Service op cit note 11 at para 13.
[224] South African Revenue Service op cit note 11 at para 1.
[225] South African Revenue Service op cit note 11 at para 2.
[226] South African Revenue Service op cit note 11 at para 6.
[227] South African Revenue Service op cit note 11 at para 7.
[228] South African Revenue Service op cit note 11 at para 7-8.
[229] South African Revenue Service op cit note 11 at para 10.
[230] South African Revenue Service op cit note 11 at para 11.

Further, cryptocurrency gains or losses can be categorised with reference to three types of scenarios giving rise to 3 distinct tax consequences:

(i) The acquisition of cryptocurrencies through mining gives the miner ownership of new coins, which gives rise to an immediate accrual or receipt on successful mining of cryptocurrencies.[231] These new coins become part of the public ledger until they are sold or exchanged for cash.[232] While these new coins are held in the public ledger, they are regarded as trading stock, which can subsequently be realised through a normal cash or barter transaction.[233]

(ii) *A normal cash transaction* which occurs when investors exchange local currency for cryptocurrency (or vice versa) through private transactions or by using cryptocurrency exchanges.[234]

(iii) *A barter transaction* which occurs when goods or services are exchanged for cryptocurrencies triggering normal barter transaction rules.[235]

SARS also provides users with a form of advisory mechanism on the tax treatment of cryptocurrency transactions. Depending on the nature of the transaction, users may seek guidance from SARS through the Binding Private Rulings.[236] This involves the issuing of an application to the commissioner to clarify the interpretation and applicability of the relevant tax laws to cryptocurrency transactions.[237]

In the Draft Taxation Law Amendment Bill, the SANT proposed that the existing provisions in South African tax law be clarified on its applicability to cryptocurrencies.[238] According to the SANT, cryptocurrencies should be financial instruments defined in section 1 of the ITA[239] and ring-fenced under section 20 A of the ITA.[240] Further, activities involving the issue; acquisition;

[231] South African Revenue Service op cit note 11 at para 12.
[232] Ibid.
[233] Ibid.
[234] Ibid.
[235] Ibid.
[236] South African Revenue Service op cit note at 11 para 3.
[237] See, South African Revenue Service 'Binding Private Rulings' available at *https://www.sars.gov.za*, accessed on 10 September 2018.
[238] South African Revenue Service op cit note 11 at para 1.
[239] South African National Treasury *Draft Explanatory Memorandum on the Taxation Laws Amendment Bill* (2018) at 42.
[240] Ibid at 51.

collection; buying; selling or transfer of ownership of cryptocurrencies should be financial services defined in section 2 of the VAT Act.[241]

(b) Initiatives by South African financial regulators to understand the development of cryptocurrencies

In 2016 the IFWG was established comprising members of the SANT; the SARB; the Financial Sector Conduct Authority and the Financial Intelligence Centre.[242] The aim of the IFWG is to understand financial technology developments to develop policy and regulatory implications for the financial sector and the economy.[243]

In early 2018, the IFWG held an inaugural workshop where cryptocurrencies was one of the main concerns.[244] The aim was to gain insight from the financial industry on cryptocurrency activities such as existing and emerging use cases, the role of cryptocurrency exchanges and specific activities such as ICOs.[245] The IFWG explained that:

> 'The cryptocurrency industry is a sandbox where firms need to be given an opportunity to experiment new technologies and applications without the burden and cost that regulation may impose. Further, many delegates of the workshop suggested that the existing financial regulatory framework was sufficient to meet the needs of the cryptocurrency industry.'[246]

In addition, a joint working group called the Crypto Assets Regulatory Working Group (CARWG) was established under the auspices of the IFWG to review the position on cryptocurrencies.[247] The purpose of the CARWG is to determine the appropriateness and effectiveness of the existing South African regulatory architecture on cryptocurrencies.[248] Significantly, the CARWG proposes a limited regulatory framework for the South African cryptocurrency industry by obliging cryptocurrency intermediaries to register with the Financial Advisory and Intermediary Services Act 37 of 2002.[249]

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[241] Ibid at 59.
[242] Intergovernmental Fintech Working Group op cit note 15 at 5.
[243] Ibid.
[244] Ibid.
[245] Ibid.
[246] Intergovernmental Fintech Working Group op cit note 15 at 10-13.
[247] Intergovernmental Fintech Working Group op cit note 16 at 5.
[248] Ibid.
[249] Intergovernmental Fintech Working Group op cit note 16 at 22. These proposals are discussed in detail in Chapter 6.

3.5. CONCLUSION

Research has shown that South African authorities do not recognise cryptocurrencies as e-money, payment methods nor securities as defined in the FMA. Research has also shown that the use of cryptocurrencies present potential consumer risks, risks to the payment system and financial stability of the economy. Therefore, there is a need for cryptocurrency regulation in South Africa. Further, due to the anonymous nature of cryptocurrencies, they are susceptible to be used as vehicles for financial crimes. As a result, South African financial regulators warn users to exercise caution when using cryptocurrencies. Research has further shown that both the SARB and the SANT do not have jurisdiction over cryptocurrencies. This is because cryptocurrencies are not generally accepted payment methods in South Africa, therefore, not legal tender. The SARB, however, emphasises that regulation should follow innovation and it will continue to monitor developments in the cryptocurrency landscape. It further reserves the right to change its position should the cryptocurrency landscape warrant regulatory intervention. Therefore, the SARB and the SANT have adopted a cautious approach to cryptocurrency regulation. On the other hand, cryptocurrencies are indirectly regulated by the SARS. In a recent media release, the SARS declared that the gains and losses incurred from the use of cryptocurrencies will have income tax consequences. Therefore, in this respect the SARS exercises limited jurisdiction over cryptocurrencies.

Although, cryptocurrencies are not directly regulated in South Africa, recent initiatives such as the Draft Taxation Law Amendment Bill, and the establishment of the IFWG designed to test the effectiveness of cryptocurrencies in the financial sector for the purpose of proposing suitable regulatory approaches reveal that South African financial regulators intend on bringing cryptocurrencies within a limited regulatory framework in the near future.

Thus, due to the non-regulation of cryptocurrencies in South Africa in conjunction with the IFWG's aspiration to bring cryptocurrencies within a regulatory framework, the next chapter will determine whether existing financial legislation can accommodate the regulation of cryptocurrencies in South Africa, thus, requiring amendment.

CHAPTER 4: THE FINANCIAL REGULATION OF CRYPTOCURRENCIES IN SOUTH AFRICA

4.1. CHAPTER OVERVIEW

The South African financial sector has undergone a fundamental shift from a single regulatory regime to a dual regulatory regime called the Twin Peaks model.[250] The Financial Sector Regulation Act, 2017 (FSR Act) which was signed into law in 2017 governs the Twin Peaks model.[251] The Twin Peaks model separates the oversight of prudential regulation from market conduct regulation between the Prudential Authority (PA) and the Financial Sector Conduct Authority (FSCA).[252] Prudential regulation aims to maintain the solvency and liquidity of financial institutions, whereas, market conduct regulation aims to regulate the manner in which financial institutions conduct their business and implement consumer protection measures.[253]

During April 2018, the Intergovernmental Fintech Working Group (IFWG) questioned whether South Africa's existing financial legislation was suitable to regulate the financial technology (Fintech) landscape, particularly cryptocurrencies.[254] The general view was that the legislative framework under the Twin Peaks model and other legislation such as the National Payment System Act 78 of 1998 (NPSA) may potentially be used, questioning whether new legislation was required to regulate cryptocurrencies and its concomitant industry.[255]

Govender[256] suggests that the Twin Peaks model may potentially be used as a regulatory tool by analysing the manner in which the regulation of cryptocurrencies and its concomitant industry meet the objectives of the FSR Act.[257]

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[250] South African National Treasury *Policy Document: A safer financial sector to serve South Africa better* (2011) at 28. See also, A Viljoen, V Lalloo, S Bunge 'Financial Sector Regulation Act: Implementing Twin peaks and the impact on the industry' *Ernest and Young* 30 March 2018 at 2, *available at http:www.ey.com/ZA/en*, accessed on 11 September 2018.

[251] S Govender 'Disrupting the Disrupted: The dawn of fintech regulation in in the twin peaks new world order' *Webber Wentzel* 11 April 2018 at para 4, *available at http:www.webberwentzel.com/wwb/content/en/ww,* accessed on 18 October 2018.

[252] Financial Regulatory Reform Steering Committee *Implementing a Twin Peaks model of Financial Regulation in South Africa* (2013) at 3.

[253] Ibid.

[254] Intergovernmental Fintech Working Group op cit note 15 at 42.

[255] Ibid.

[256] Seshree Govender is an associate in the Financial Regulatory Practice at Webber Wentzel. She has published various articles which relate to the regulation of cryptocurrencies from a financial sector perspective.

[257] South African National Treasury op cit note 250 at 28.

Govender further suggests that by understanding the regulatory roles of the PA and the FSCA, it can be determined whether or not cryptocurrencies fit within the legislation under the jurisdiction of the PA and/or the FSCA.[258]

This chapter will briefly discuss whether the FSR Act, taking into consideration its objectives, can potentially regulate cryptocurrencies without the need for further specific legislation. It will further set out the applicability of the relevant prudential legislation and market conduct legislation to the use of cryptocurrencies and the intermediaries supporting its use.[259] In addition, it will set out the applicability of the common law of payment systems in South Africa and the NPSA on cryptocurrencies and its use thereof.

4.2. THE TWIN PEAKS MODEL

(a) The interplay of cryptocurrencies with the objectives of the FSR Act

The objective of the FSR Act is to maintain financial stability; ensure the safety and soundness of the financial system and financial customers; the prevention of financial crime; ensure financial inclusion and instill confidence in and transform the financial sector in South Africa.[260] Cryptocurrencies are technological innovations that revolutionise financial services, as they are perceived to be a form of money directly impacting various economic activities such as payments, investments and capital raising.[261]

Further, cryptocurrencies perform similar financial sector activities without the control of a central regulatory authority and without similar safety mechanisms leaving the cryptocurrency landscape exposed to financial and consumer risks such as money laundering; the financing of terrorism; consumer and investor protection concerns and tax evasion.[262] In addition, there is growing interest, investment and participation in cryptocurrencies.[263] Therefore, bringing cryptocurrencies within a financial legislative framework will achieve the objectives of the FSR Act.

[258] Ibid.
[259] Various common law principles will be employed where necessary.
[260] Long title of the FSR Act.
[261] Intergovernmental Fintech Working Group op cit note 16 at 5.
[262] Intergovernmental Fintech Working Group op cit note 16 at 6.
[263] Ibid.

(b) The applicability of prudential regulation to cryptocurrencies

The PA has jurisdiction over the Banks Act 71 of 2008 (Banks Act) and other prudential legislation.[264] The PA operates within the South African Reserve Bank (SARB) and is accountable to the SARB.[265] The SARB is responsible for regulating and supervising payment, clearing and settlement systems within South Africa, and is governed by the NPSA.[266] Although the NPSA does not fall under the aegis of the Twin Peaks model, it is important to determine its applicability to cryptocurrencies as they possess similar characteristics to payment methods and payment systems. This will also determine whether the SARB can regulate the cryptocurrency landscape.

Thus, for cryptocurrencies to fall within the regulatory framework of the PA and ultimately within the mandate of the SARB, cryptocurrencies must be considered as payment methods or payment systems within South Africa's payment systems legislative framework.[267] On the other hand, cryptocurrency intermediaries must be regarded as conducting the business of banking within the relevant banking legislation.

(c) Payment systems law

Payment systems are critical to the effective functioning of a country's financial system.[268] A fundamental requirement for a stable and secure payment system is that it should operate in a well-defined legal environment.[269] There is consensus amongst members in the payment industry that the legislative framework governing payments must be flexible and adaptable to accommodate the emergence of new payment methods and technologies, whilst ensuring the safety and efficiency of the payment system.[270] The key innovation of cryptocurrencies is its underlying technology - the blockchain enabling cryptocurrencies to function as efficient payment methods and systems from an economic perspective.[271]

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[264] Schedule 3 of the FSR Act. Other prudential legislation includes: The Mutual Banks Act 124 of 1993 and the Co-operative Banks Act 40 of 2007.
[265] Financial Regulatory Steering Committee op cit note 252 at 6-8.
[266] Financial Regulatory Steering Committee op cit note 252 at 57.
[267] Intergovernmental Fintech Working Group op cit note 15 at 8.
[268] R Sharrock *The Law of Banking and Payment in South Africa* (2016) at 78.
[269] Ibid.
[270] J Maphosa 'Banking and Finance in Africa: Payment system regulations' (2017) 17 *Without Prejudice* 10 at 32.
[271] R Ali, R Clews, J Southgate 'Innovations in payment technologies and the emergence of digital currencies' *Bank of England* 16 September 2014 at 264, *available at www.bankofengland.co.uk/quarterly-bulletin/2014/q3,* accessed on 25 October 2018.

From a legal perspective, however, it is submitted that there is uncertainty as to whether cryptocurrencies function as efficient payment methods and systems in South Africa.

(i) Cryptocurrencies as payment methods

Payment methods are issued by banks to their customers to effect transactions including, among others, financial market transactions and the daily purchase of goods and services.[272] The main payment methods available in South Africa are cash and non-cash payment methods.[273]

Cash payments include banknotes and coins which are accepted as a means of payment because the public trusts that they will be able to purchase goods and services to the face value of the coins and/or banknotes.[274] It is submitted that cryptocurrencies cannot be considered as cash because they are not considered as banknotes or coins which are issued by the SARB. Section 14 of the SARB Act 90 of 1989 (SARB Act) empowers the bank to issue bank notes and coins and no reference is made to cryptocurrencies.[275] Further, cash is defined in the Financial Intelligence Centre Act 38 of 2001 (FICA) as:

> 'Any coin and paper money of South Africa or of another country that is designated as legal tender and circulates as, and is customarily used and accepted as, a medium of exchange in the country of issue; and (b) travellers' cheques.'[276]

No reference is made to cryptocurrencies in this section. Further, in contrast to cash payments, cryptocurrencies have not yet attained the acceptance of the general public to be used to purchase goods and services.[277] Non-cash payment methods include: cheques; debit and credit cards; e-money; and Electronic Funds Transfers (EFT/s).[278] Kaplanov[279] hypothesises that cryptocurrencies may potentially fall within the category of non-cash payment methods as EFTs

[272] South African Reserve Bank National Payment System Department *Payment, clearing, and settlement systems in South Africa* (2012) at 382.
[273] Ibid.
[274] Ibid.
[275] Section 14 (1) provides that the Bank shall have the sole right to issue or cause to be issued bank notes and coins in the Republic: Provided that all coins which at the commencement of the South African Reserve Bank Amendment Act, 1989, were lawfully in circulation and legal tender in the Republic, shall as such remain in circulation until they are withdrawn from circulation in accordance with the provisions of section 19, or are no longer of the current mass prescribed in Schedule 2 in respect of the denomination in question.
[276] Section 1 of FICA.
[277] South African Revenue Service op cit note 11 at para 6.
[278] South African Reserve Bank National Payment System Department op cit note 272 at 382.
[279] Kaplanov is an Associate in the Litigation Department of Weil, Gotshal and Manges LLP in the New York branch and a member of the Securities Litigation Practice.

because payment takes place through electronic means.[280] Kaplanov analyses the EFT Act which defines EFTs as:

> 'Any transfer of funds, other than a transaction originated by a cheque; draft; or similar paper instrument, which is initiated through an electronic terminal; telephonic instrument; or computer; or magnetic tape, so as to order; instruct; or authorise a financial institution to debit or credit an account.'[281]

Kaplanov concludes that although cryptocurrencies are executing EFTs in a pure sense, the software does not order, instruct; or authorise a financial institution to perform any instructions.[282] Therefore, cryptocurrency activities do not fall within the regulatory definition of EFTs, hence, cryptocurrencies are not considered as EFTs in the United States of America.[283]

In South Africa, specific legislation governing EFTs does not exist.[284] Schulze, however, defines EFTs as:

> 'Methods of payment through which a third party (the payer's bank) is given an instruction by the payer to effect payment through an electronic medium (a computer system) to the beneficiary's bank account.'[285]

Schulze further indicates that EFTs constitute a novation of the original debt.[286] The beneficiary accepts that the money will in terms of the transaction underlying the EFT be paid to him by the payer's bank.[287] Therefore, EFT payments are an absolute and not a conditional payment method.[288] It is submitted that, although payments using cryptocurrencies are effected through an electronic medium between a payer and payee, the transactions between the payer and payee occur directly between the parties on a peer-to-peer basis without the need for the payer to instruct the bank to execute the payment.

As compared to EFTs where payment is settled and cleared through a bank, cryptocurrency transactions are cleared and settled through the blockchain without the need for a third party to clear and settle transactions. Therefore, to categorise cryptocurrencies within the context of EFTs

[280] N Kaplanov op cit note 74 at 137.
[281] Ibid.
[282] Ibid.
[283] Ibid.
[284] R Sharrock op cit note 268 at 295.
[285] R Sharrock op cit note 268 at 273.
[286] Ibid.
[287] Ibid.
[288] Ibid.

is a misnomer as the primary purpose of cryptocurrencies is to decentralise payments between parties. Further, cryptocurrency payments are not absolute but conditional payment methods.

The SANT clearly indicates that the use of cryptocurrencies depends on the other participant's willingness to accept them, and any merchant may refuse them as payment methods without being in breach of the law. [289] The SANT, further emphasises that cryptocurrencies cannot be regarded as payment methods as they are not issued on receipt of funds.[290] For these reasons, cryptocurrencies cannot be considered as EFTs within South African payment systems law.

(ii) Cryptocurrencies as payment systems - the applicability of the NPSA

Payment systems are defined as:

> 'Operational networks governed by laws and standards that link bank accounts, providing the functionality for monetary exchange using bank deposits. It also includes the infrastructure (comprised of institutions; instruments; rules; procedures; standards; and technical means) established to effect the transfer of monetary value between parties discharging mutual obligations.'[291]

Although, participants in cryptocurrency transactions follow protocols and rules, cryptocurrencies themselves are not payment systems because they constitute units of value storage or account.[292] Khoza and Visser, however, are of the view that a cursory reading of the NPSA suggests that the regulatory framework of the NPSA could easily accommodate the use of the blockchain, where the use of the blockchain to effect and record cryptocurrency transactions could fit within the definition of payment, clearing and settlement systems.[293]

Payment systems are defined in the NPSA as: systems that enable payments to be effected, or facilitates the circulation of money and includes any instruments and procedures that relate to the

[289] South African National Treasury op cit note 8 at 2.
[290] Ibid.
[291] S Hughes & S Middelbrook op cit note 102 at 517.
[292] Ibid. See, Chapter 2 section 2.2 (c) which explains the concepts of a cryptocurrency being regarded as a unit of account and a store of value.
[293] F Khoza & Fisser D 'Blockchain Revolution and Financial Regulation in South Africa' *Tech4Law* 5 September 2016 at para 4, *available at http://www.tech4law.co.za/news-in-brief/59-law/2233*, accessed on 19 September 2018. This section will employ a thorough rather than a cursory reading of the NPSA to determine whether the NPSA is fit for the purposes of regulating the blockchain. It will determine whether the blockchain fits within the definitions of payment; clearing and settlement system as defined in the NPSA. Further, the overall purpose and objectives of the NPSA will be considered.

system.[294] This includes ATMs; internet banking facilities; branch networks; EFT mechanisms; debit and credit cards.[295]

Clearing systems are not defined in the NPSA, however, the term clearing is defined as the exchange of payment instructions.[296] The entities participating in the clearing system include banks and non-banks[297]and clearing houses.[298] Clearing houses are central locations or processing mechanisms through which financial institutions agree to exchange payment instructions or financial obligations.[299] The institutions settle for items exchanged at a designated time based on the rules and procedures of the clearing house.[300] Section 6 (1) of the NPSA provides that:

> 'No person may clear payment instructions unless that person is a:
>
> (a) Reserve Bank settlement system participant; or
> (b) Bank; mutual bank; or a designated clearing system participant.'[301]

Settlement systems are defined as systems for the discharge of payment or settlement obligations or the discharge of payment and settlement obligations between participants within that system.[302] Settlement is effected in money or by means of entries passed through the Reserve Bank settlement system (referred to as SAMOS) or a designated settlement system (referred to as Continuous Linked Settlement System (CLS)).[303] SAMOS is the settlement system established and operated by or under the control of the Bank.[304]

Section 3 (4) of the NPSA provides that:

> 'No person may participate in SAMOS unless that person is a:
>
> (a) Reserve Bank; a bank; a mutual bank or a branch of a foreign institution; or such a person is a member of a recognised payment system body;

[294] Section 1 of the NPSA.
[295] South African Reserve Bank National Payment System Department *Financial Stability Review* (2008) at 39.
[296] Ibid note 294.
[297] They are allowed to clear in their own name, however, continue to be the exclusive domain of the settlement system participant banks.
[298] R Sharrock op cit note 272 at 42.
[299] Ibid.
[300] Ibid.
[301] Section 6(1) of the NPSA.
[302] Supra note 294.
[303] R Sharrock op cit note 268 at 81.
[304] R Sharrock op cit note 268 at 80.

(b) designated settlement system operator. Section 4 A provides: The Reserve Bank may designate a settlement system if such designation is in the interest of the integrity; effectiveness; efficiency or security of the payment system;
(c) meets the criteria for participation in SAMOS as established by the Reserve Bank in consultation with the payment system management body.'[305]

The CLS is responsible for the settlement of foreign exchange transactions between the South African rand and that of other foreign currencies.[306] It is further responsible for reducing settlement risk associated with foreign-exchange transactions.[307]

(iii) The applicability of the NPSA to the Blockchain

Similarly to the National Payment System (NPS), the blockchain is a system that enables cryptocurrency payments to be effected.[308] The instruments and procedures that relate to the system include: cryptocurrency intermediaries such as exchanges; merchants; miners; wallet providers; cryptocurrency ATMs and payment gateways such as PayFast.[309] This research has established that these instruments and procedures are prevalent in South Africa. For example: exchanges such as Luno and Ice3x are responsible for facilitating the exchange of cryptocurrencies between parties and both online and offline merchants accept cryptocurrencies particularly Bitcoin as a payment method in South Africa, for example: Takealot, South Africa's largest online retailer accepts Bitcoin payments. Therefore, the blockchain fits within the definition of payment systems in the NPSA.

On the other hand, clearing and settlement is performed in one step.[310] There is no separation of sending the financial transaction information and final interchange of money, as compared to traditional payment systems.[311]

Transactions are cleared and settled through a complex mathematical process by miners.[312] Miners do not exist in a central location, instead they are globally distributed within a peer-to-

[305] Section 3(4) of the NPSA.
[306] Ibid.
[307] South African Reserve Bank National Payment System Department *The National Payment System in South Africa 1995-2005* (2015) at 17.
[308] See, chapter 2 section 2.2 (e).
[309] See, chapter 2 at section 2.6.
[310] A Wadsworth 'Decrypting the role of distributed ledger technology in payments process' (2018) 81 *Reserve Bank of New Zealand Bulletin* 5 at 6.
[311] Ibid.
[312] Ibid. See also chapter 2 at section 2.6 (e) which explains the concept of miners.

peer network,[313] whereas, in the conventional system transactions are cleared through centralised authorities such as banks; non-banks; and clearing houses, and settled through SAMOS. Foreign transactions are cleared though CLS, whereas both foreign transactions and national transactions take place within one system.

Further, for the blockchain to be regarded as a clearing and settlement system within the NPSA it must meet the requirements in sections 6 (1) and 3 (4) of the NPSA. These sections only cater for natural and juristic persons to meet the requirements of a clearing or settlement system participant to participate in the NPS. These sections do not cater for financial technologies such as the blockchain operating as a clearing and settlement system. Considering this, a literal interpretation of the words clearing system and settlement system against the definitions of clearing and settlement system in the NPSA allows for the blockchain to fit within these definitions, however, a purposive interpretation does not allow for the blockchain to be included within the NPSA.

Moreover, the NPSA only accommodates for systems operative within the jurisdiction of South Africa, considering the blockchain's globalised nature and its purpose of removing the control of a central authority, regulation of the blockchain defeats the purpose of its existence. Finally, the blockchain technology is multifaceted with its use extending beyond payment systems, hence, regulating the blockchain within the confines of a legislative framework which specifically regulates payment systems disregards the uniqueness of the blockchain as more than a payment system.[314]

For these reasons, the NPSA is not fit for the purposes of regulating the blockchain, thus, the blockchain cannot be considered as a payment, clearing and settlement system in terms of the NPSA.

[313] See, chapter 2 at section 2.6 (e) which explains the concept of miners.
[314] This was shown in Chapter 2 which discussed the types of cryptocurrencies in use namely: first and second generation cryptocurrencies where second generation cryptocurrencies enables other financial transactions to occur other than payment transactions.

(d) Cryptocurrency intermediaries- the applicability of the SARB Act and the Banks Act

In its 2014 position paper on virtual currencies, the SARB indicates that:

> 'Cryptocurrencies remove central and commercial banks from the payment process. The roles played by these entities are now performed and controlled by [intermediaries] of the cryptocurrencies as a collective i.e. money creation (a central bank function); safekeeping of deposits (a commercial bank business activity; and cross border fund movements (irrespective of possible exchange controls).'[315]

This statement made by the SARB implies that the roles performed by cryptocurrency intermediaries are similar to the role of banks. The SARB, however, fails to clarify whether cryptocurrency intermediaries perform the role of banks in the legal sense i.e. whether these intermediaries are performing the role of central banks within the context of SARB Act and conducting commercial bank business activities through the taking of deposits from the public within the Banks Act. This section will consider these issues by reviewing the SARB Act and the Banks Act.

This research has established that the intermediaries performing roles similar to banks are: (a) miners responsible for "money creation" and (b) cryptocurrency exchanges (exchanges) responsible for the safekeeping of deposits.[316] This section analyses whether the services provided by these intermediaries fit within the SARB Act and Banks Act.

(i) The SARB Act

Central banks are autonomous institutions that have exclusive jurisdiction over affairs within their competence and operate at the apex of a country's monetary and banking structure.[317] The Reserve Bank is the central bank of South Africa governed by the SARB Act.[318] It acts as the regulator of banks and banking businesses.[319] Section 3 of the SARB Act provides that:

> 'The primary objective of the Reserve Bank is to protect the value of the currency of the Republic in the interest of balanced and sustainable economic growth in the Republic.'[320]

[315] South African Revenue Service National Payment System Department op cit note 4 at 3.
[316] See, chapter 2 at section 2.6 (e). As was discussed miners do not create cryptocurrencies, instead they unearth them. "Money creation" is referred to hypothetically.
[317] R Sharrock op cit note 268 at 2.
[318] Ibid.
[319] Ibid.
[320] Section 3 of the SARB Act.

In contrast to central banks, miners neither have exclusive jurisdiction over nor operate at the apex of the cryptocurrency network nor the cryptocurrency industry. The mandate of the SARB is to protect the value of the South African Rand, whereas, miners are not responsible for protecting the value of cryptocurrencies, instead, the value of cryptocurrencies are determined by the principle of supply and demand i.e. the value ascribed to them by the cryptocurrency market.[321]

(ii) The Banks Act

The Banks Act regulates the South African banking sector.[322] Accordingly, an entity must conduct the business of a bank in South Africa to be regulated within the Banks Act.[323] The accepting of deposits from the general public is a regular feature of the business of banking, therefore,[324] an entity must meet the requirements of the term "deposit" within the Banks Act.[325] Deposit is defined as:

> '…an amount of money paid by one person to another person subject to an agreement in terms of which:
>
> (a) An equal amount or any part thereof will be conditionally or unconditionally be repaid, either by the person to whom the money has been so paid or by any other person, with or without a premium, on demand or at a specified or unspecified dates or in circumstances agreed to by or on behalf of the person making the payment and the person receiving it…'[326]

Perlman,[327] however, argues that shifting business models may give rise to varied answers to the question of whether an entity is a bank, creating a lacuna between banking law and banking practice.[328] Therefore, statutory definitions of a bank the business of banking may not necessarily provide comprehensive answers to new business models as to whether an institution is a bank. [329] Therefore, common law principles of the business of banking must be analysed.[330]

[321] N Kaplanov op cit note 74 at 386.
[322] R Sharrock op cit note 268 at 67.
[323] R Sharrock op cit note 268 at 13.
[324] Ibid.
[325] Ibid.
[326] Section 1 of the Banks Act.
[327] Leon Perlman is an academic member of the University of South Africa.
[328] L Perlman *Legal and regulatory aspects of Mobile Financial Services* (Phd thesis, University of South Africa, 2012) at 124.
[329] Ibid at 125.
[330] Ibid.

The meaning of a deposit was formulated in the cases of *Foley v Hill* (Foley),[331] and *Louw v Coetzee* (Louw).[332] The courts held that a deposit is seen as a contract of bank debt owed to the account holder after consideration is paid to the bank by the depositor, whereby the bank must return a sum demanded by the depositor, or according to specified terms agreed upon.[333] The relationship between the bank and the depositor is said to be that of debtor and creditor.[334]

The account becomes an abstract representation of debt (of repayment) where the bank has a legal obligation to the depositor for return of the money on demand with reasonable notice.[335] The transaction motive for the deposit of funds is for the depositor and the bank where each seeks to gain benefits from the placement of funds.[336] A deposit of funds gives the depository the right to use the depositor's money until it is called for by the depositor or another authorised person and becomes the property of the bank.[337] The bank has a personal obligation to repay the amount and when a bank is liquidated the customer only has a concurrent claim against the bank.[338]

In contrast, the deposits held with exchanges are solely for the purpose of purchasing and/or trading cryptocurrencies.[339] There is no undertaking by the exchanges to repay any money that has already been paid by the cryptocurrency purchaser and/or trader. The exchange merely acts as a purchasing and/ or trading platform.[340] Thus, there is no personal obligation of repayment on the part of the exchange, consequently, there is no debtor and creditor relationship between the exchange and the purchaser and/or trader. The deposited funds do not become the property of the exchange, hence, it does not have a right to use the purchaser's/trader's deposited funds for its own benefit.

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[331] 1848 (2) HLC 28.
[332] (2003) 3 SA 329 (SCA).
[333] L Perlman op cit note 328 at 132.
[334] Ibid.
[335] L Perlman op cit note 328 at 133.
[336] Ibid.
[337] L Perlman op cit note 328 at 134 and supra note 332 at 37. See also: Trustees of the Insolvent Estate of Graham Ernest John Whitehead v Leon Jean Alexandra Dumas and Absabank (323/120) [2013] ZASCA 19 at para 13-16.
[338] Supra note 331 at 334 HI. There is no indication in the Financial Institutions Act (Protection of Funds) Act 28 of 2001 that the common law position has changed.
[339] See, Luno 'Terms of Use' available at *https://www.luno.com.southafrica*, accessed on 31 August 2018 and Ice 3x 'Terms and Conditions' available at *https://ice3x.co.za*, accessed on 31 August 2018.
[340] Ibid.

For these reasons, it appears that the deposits held by exchanges do not fall within the statutory definition of deposit, neither do they fit within the common law principles of a deposit. Therefore, exchanges do not conduct the business of banking through the taking of deposits within the Banks Act, hence, they are not considered as banks within the Banks Act. This view is also supported by Khoza and Visser who indicate that:

> 'Using [cryptocurrencies] to effect transactions could not be regarded as the business of a bank. If one engages in a type of large scale [cryptocurrency] storage, provided that storage is personal in the sense that the currency was not amassed via accepting a type of deposit of that currency, it does not appear that the activity would amount to any sort of banking activity requiring a license.'[341]

Therefore, South Africa's current banking law framework would further not be applicable to the storage of cryptocurrencies by exchanges or wallet providers because cryptocurrencies are not recognised in law as legal tender that is capable of being accepted as a form of deposit.

The business of banking is also defined beyond direct deposit taking. The case of *United Dominions Trust Ltd v Kirkwood*[342] established a criterion for determining the nature of the business of banking. The common characteristics found in the banking system today are the collection and honoring of cheques for customers and the keeping of current accounts.[343] Further, the institution's reputation as a banker is important. An institution which positions itself out as a banker through its actions or the services it provides may provide the impetus for the acquisition of the reputation, for example: if it has acquired the status of a banker by the government and banking community.[344] In contrast, exchanges do not provide a platform for the collection and honoring of cheques.[345] They do not operate current accounts for customers, the wallets which serve as cryptocurrency accounts are merely used to send, receive and store cryptocurrencies, and for the depositing of funds to purchase cryptocurrencies.[346] In addition, exchanges have not acquired the status of bankers by the government or banking community.

[341] F Khoza & Fisser D opcit note 293 at para 5.
[342] 1966 (2) QB 431.
[343] Ibid at 424.
[344] Ibid at 428.
[345] See, Luno 'Terms of Use' available at *https://www.luno.com.southafrica*, accessed on 31 August 2018 and Ice 3x 'Terms and Conditions' available at *https://ice3x.co.za*, accessed on 31 August 2018.
[346] Ibid.

From this analysis, it is concluded that cryptocurrencies and the intermediaries supporting its use do not possess the potential to be governed by the PA and ultimately within the mandate of the SARB. This is because cryptocurrencies are not payment methods or payment systems within South Africa's payments law framework. Further, although cryptocurrency intermediaries perform similar functions to banks particularly miners who have revealed similar functions to central banks and exchanges who have revealed similar functions to commercial banks, they cannot be regarded as banks from a legal perspective because:

(i) Miners do not operate at the apex of the cryptocurrency network or industry and do not protect the value of cryptocurrencies as the central bank is responsible for protecting the value of the South African Rand.

(ii) Exchanges do not accept deposits from the public as defined within the Banks Act and common law of banking.

Therefore, the following section will analyse the potential applicability of the market conduct regulation to cryptocurrencies and whether cryptocurrencies may potentially be governed by the FSCA.

(e) The applicability of market conduct regulation to cryptocurrencies

The FSCA has jurisdiction over the Financial Advisory and Intermediary Services Act 37 of 2002 (FAIS), the Financial Markets Act 19 of 2012 (FMA) and the Financial Institutions Act 28 of 2001 (FIA).[347] The FSCA's scope is determined by the activities carried out by financial institutions and it regulates and supervises financial institutions that provide financial products and/or financial services; or financial institutions operating as market infrastructures such as security exchanges.[348]

Thus, for cryptocurrencies to fall within the regulatory ambit of the FSCA, cryptocurrencies must be considered financial products within the legislative framework of the FSCA[349] Cryptocurrency intermediaries, on the other hand, must be considered financial institutions providing financial services or operating as financial market infrastructures.

[347] Ibid.
[348] Ibid.
[349] Intergovernmental Fintech Working Group op cit note 15 at 8.

(i) FAIS

The object of FAIS is to regulate the rendering of financial services in South Africa.[350] Financial services are defined in FAIS as: 'the services provided by a financial service provider, including any category of such services.'[351]

A financial service provider is defined as:

> 'Any person, other than a representative, who as a regular feature of the business of such person:
>
> (a) Furnishes advice; or
> (b) Furnishes advice and renders any intermediary service; or
> (c) Renders an intermediary service.'[352]

As was shown in Chapter 2, cryptocurrency intermediaries provide services such as the safekeeping of cryptocurrencies and facilitating transactions for clients without updating the public ledger.[353] Such transactions take place "off the block chain."[354] Off the block chain transactions may not appear in the public ledger or, if they do, they appear as transactions involving the intermediaries instead of the sender and receiver of cryptocurrencies.[355] Cryptocurrency intermediaries function similarly to traditional financial system intermediaries.[356] Therefore, it is important to determine whether cryptocurrency intermediaries such as exchanges; wallet providers; miners and merchants provide intermediary services within the FAIS Act. This would mean that they would require a licence to operate as registered financial service providers. Intermediary services are defined as:

> 'Any other act other than the furnishing of advice, performed by a person for or on behalf of a client or product supplier:
>
> (a) The result of which is that a client may enter into, offers to enter into or enters into a transaction in respect of a financial product with a product supplier; or
> (b) with a view to:
>
> i. buying, selling or otherwise dealing in (whether on a discretionary or non-discretionary basis), managing; administering; keeping in safe custody, maintaining or servicing a financial product purchased by a client from a product supplier or in which the client has invested;

[350] R Sharrock op cit note 268 at 93.
[351] Section 1 of FAIS.
[352] Ibid.
[353] S Hughes & S Middelbrook op cit note 102 at 497.
[354] Ibid.
[355] S Hughes & S Middelbrook op cit note 102 at 497-498.
[356] Ibid.

ii. collecting or accounting for premiums or other moneys payable by the client to a product supplier in respect of a financial product; or
iii. receiving, submitting or processing claims of a client against a product supplier.'[357]

Itzikowits, Meiring and Gunning[358] formulate the following two-stage enquiry to determine whether the provision of cryptocurrency intermediary services amounts to financial services within FAIS:

1. whether a financial product is involved, if the answer is in the affirmative, then;
2. whether advice/and or intermediary services are rendered in respect of that financial product;

If there is no financial product, that is the end of the enquiry.[359]

FAIS provides a broad list of financial products such as securities and shares.[360] A literal interpretation of the definition of financial product reveals that FAIS contains no reference to cryptocurrencies.[361] Further, the Registrar of Financial Service Providers has not declared cryptocurrencies to be financial products in terms of FAIS.[362] In addition, the IFWG indicates that by virtue of the fact that cryptocurrencies are not defined as financial products within the current legislative framework they fall outside the regulatory ambit of the FSCA.[363] Therefore, cryptocurrencies cannot be considered as financial products in terms of FAIS.

Moreover, FAIS does not contain a definite definition of financial products. According to *www. economywatch. com*, financial products refer to instruments which are used for the purpose of investments, insurance and mortgages. These are issued by amongst others, banks, financial institutions and stock brokerages. It is submitted that cryptocurrencies cannot be regarded as financial products as cryptocurrencies are not issued by central authorities, whereas financial products are. Consequently, this would imply that cryptocurrency intermediaries cannot be

[357] Supra note 351.
[358] Itzikowitz and Meiring are executive attorneys at ENSafrica in the Banking and Finance Department. Gunning is a director at ENSafrica in the banking and finance department.
[359] A Itzikowits, I Meiring, E Gunning 'Blockchain and Cryptocurrency Regulation: South Africa' *ENSafrica* 19 September 2018 at 433-434,
available at http://www.ensafrica.com/uploads/images/news/GLIBLCH1SouthAfrica.pdf, accessed on 09 August 2018.
[360] Supra note 351.
[361] A Itzikowits, I Meiring, E Gunning op cit note 359.
[362] Ibid.
[363] Ibid and Intergovernmental Fintech Working Group op cit note 15 at 8.

considered as financial service providers in terms of FAIS, hence, they are not obliged to be licensed as financial service providers.

This research, however, argues that there may be instances where cryptocurrency intermediaries will be obliged to register with FAIS as financial service providers. The emergence of cryptocurrencies lead businesses to provide certain facilities associated with cryptocurrencies, where cryptocurrencies form the underlying asset of that specific facility.[364] These facilities include: derivative contracts which are utilised where parties are seeking to reduce their exposure to the price volatility of cryptocurrencies, structure securities and participatory interests in collective investment schemes.[365] In these instances, these facilities associated with cryptocurrencies may potentially be regulated as financial products. This submission is supported by Govender who indicates that:

> '[Cryptocurrencies] in their digital asset legal structure would only need to be used in financial products that either derive value from or are backed by an asset. Such financial product types include some types of structure securities as defined in the FMA, derivative contracts and participatory interests in collective investment schemes. The value of the financial product would be linked or limited to the value of the underlying cryptocurrency asset. Once packaged in a regulated financial product, the unregulated nature of [cryptocurrencies] will become framed by the highly regulated nature of the relevant financial product.'[366]

Govender further indicates that to bring facilities associated with cryptocurrencies within the regulatory purview of financial products will invariably change the manner in which cryptocurrencies are accessed, held and traded and the way in which the inherent value in the cryptocurrency digital asset is realised.[367]

It is further submitted that this can be done by virtue of the power of the FSCA to expand its own scope by deeming instruments or products to be financial products. Section 2(2) of the FSR Act provides that:

> 'The regulations may designate as a financial product any facility or arrangement that is not regulated in terms of a specific financial sector law if-
>
> (a) doing so will further the object of the [FSR Act] and
> (b) the facility or arrangement is one through which, or through the acquisition of which, a person conducts one or more of the following activities:
> i. Lending;

[364] S Govender 'Prettier in a shiny regulated wrapper' 17 *Without Prejudice* 3 at 24.
[365] Ibid at 25.
[366] Ibid.
[367] Ibid.

ii. Making a financial investment…'[368]

Section 2 (3) defines making a financial investment as follows:

'A person makes a financial investment when the person/investor –

(a) gives a contribution, in money or money's worth, to another person and any of the following apply:
   i. The other person uses the contribution to generate a financial return for the investor;
   ii. The investor intends that the other person will use the contribution to generate a financial return for the investor, even if no return, a loss, is in fact generated; and
   iii. The other person intends that the contribution be used to generate a financial return for the investor, even if no return, or a loss, is in fact generated;

(b) has no day-to-day control over the use of the contribution.'[369]

This section could be read to include the use of cryptocurrencies to make investments since cryptocurrencies are considered as "money's worth". Consequently, institutions that provide cryptocurrency services will be regarded as providing financial services. Section 3(3) provides that: if doing so will further the object of the [the FSR Act] the regulations may designate as a financial service:

'Any service that is not regulated in terms of a specific financial sector law if the service that is provided in South Africa relates to:

i. a financial product; a foreign financial product; a financial instrument; or a foreign financial instrument;
ii. An arrangement that is in substance an arrangement for lending; making a financial investment..…and
iii. a service provided by a market infrastructure.'[370]

This can further be implemented by the substance over form principle. The substance over form principle dictates that the regulation of financial services in South Africa focuses on the substance of the financial product and/or service provided to clients, rather than the medium or infrastructure used for that purpose.[371] Therefore, the provision of cryptocurrencies through these financial product facilities and which operates through the blockchain platform may require a licence from the Financial Sector Conduct Authority.[372] FAIS regulates any financial product or

[368] Section 2 (2) of the FSR Act.
[369] Section 2 (3) of the FSR Act.
[370] Section 3 (3) of the FSR Act.
[371] D Geral, B Tibane, K Kern 'Fintech in South Africa: Overview' *Bowmans* 1 May 2018 at 6, *available at http://www.bowmans.com/wp-content/uploads/2018/05*, accessed on 09 August 2018.
[372] Ibid.

service regardless of the platform used to provide the product or service.[373] It is submitted that the FSCA could or is expected to include facilities associated with cryptocurrencies within the definition of financial products.[374]

(ii) FMA

Financial markets are institutional arrangements, mechanisms and conventions that bring together buyers and sellers of financial instruments and set the prices of those instruments in the process.[375] Each economy must have an operative financial market where trading activity is monitored, maintained and enhanced through appropriate financial legislation.[376] The South African financial market is governed by the FMA.[377] The FMA governs the trading in securities and provides for the licencing and regulation of exchanges, central securities depositories, clearing houses and trade repositories and the prohibition of various market abuses.[378]

Some authors have described the cryptocurrency economy as an alternative financial market[379] due to the existence of cryptocurrency exchanges[380] operating similarly to traditional security exchanges.[381] Cryptocurrency exchanges match buyers and sellers of cryptocurrencies at the price at which they are willing to trade,[382] similar to traditional security exchanges which brings together buyers and sellers of securities by matching similar orders across the market.[383] Thus, it is important to determine whether cryptocurrency exchanges may potentially be regulated as traditional security exchanges in terms of the FMA and consequently financial market infrastructures, thus, requiring a licence in terms of the FMA to conduct the business of a cryptocurrency exchange.

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[373] Ibid.
[374] Ibid.
[375] H Pakies *The market abuse control legislative regime of South Africa; Nigeria; and the United Kingdom-an approach to regulation and monitoring in relation to certain aspects of financial markets of South Africa* (unpublished LLM thesis, University of Western Cape, 2015) at 4-5.
[376] Ibid.
[377] Ibid.
[378] Long title of the FMA.
[379] I Chiu 'Fintech and disruptive business models in financial products' (2016) 21 *Journal of technology law and policy* 55 at 105.
[380] This section will not use the abbreviation of exchanges for cryptocurrency exchanges as employed throughout this chapter and this research, ultimately for the purpose of avoiding confusion between a security exchange and cryptocurrency exchange.
[381] R Bohme et al op cit note 111 at 220.
[382] Ibid.
[383] South African National Treasury *Reviewing the regulation of financial markets in South Africa*: *Policy document explaining the Financial Markets Bill, 2011* at 13-14. See also, P Fico 'Virtual Currencies and blockchains: potential impacts on financial market infrastructures and on corporate ownership' 2016 *SSRN Electronic Journal* at 5-6.

The prerequisite to be regulated within the confines of the FMA is that an exchange must provide services in respect of securities.[384] In this regard, cryptocurrencies must be considered as securities for cryptocurrency exchanges to be regulated as security exchanges in terms of the FMA.

The FMA provides a broad list of securities, for example: listed and unlisted shares, debentures, units or any other form of participation in a collective investment scheme.[385] On a literal interpretation, the definition of securities contains no reference to cryptocurrencies.[386] Further, the Registrar of Securities Services has not prescribed cryptocurrencies to be instruments similar to any of the securities listed in the FMA.[387] Further, the type of securities listed in the FMA has one common characteristic: there is an issuer against whom the holder of the securities will have a claim.[388] A cryptocurrency lacks this feature, as it is not issued by any central authority or person; rather its existence is dependent on the process of mining.[389]

Further, while it could be argued that cryptocurrencies possess similar features to securities particularly that they are treated as investments (i.e. a capital outlay or an expenditure to acquire property or assets to produce revenue), there are several other products possessing this feature, thus, it would be too impractical to categorise all such products as securities as contemplated in the FMA, such as annuities, retirement funds, education savings or any other facility through which a financial investment can be made.[390]

Therefore, cryptocurrencies are not regarded as securities in terms of the FMA. Consequently, cryptocurrency exchanges cannot be considered as security exchanges in terms of the FMA, hence, they are not obliged to be licenced as security exchanges. Therefore, cryptocurrencies cannot be not considered as financial market infrastructures. However, in circumstances where

[384] Section 1 of the FMA.
[385] Ibid.
[386] A Itzikowits, I Meiring, E Gunning op cit note 359 at 433.
[387] Ibid.
[388] Ibid.
[389] Ibid.
[390] Ibid and Financial Industry Regulatory Authority 'Types of Investments' available at https:www.finra.org/investors/types-investments, accessed on 21 July 2019. See also, section 4.2 (e) (i) at 61 which discusses Section 2 (3) of the FSR Act when a person/investor will be making a financial investment. Section 2 (3) does not specifically mention that it is only securities which have an investment feature but rather any facility through which an investment can be made.

cryptocurrencies are used as an underlying asset in a cryptocurrency related financial product such as structure securities, the FMA would potentially be applicable.

(iii) FIA

The purpose of the FIA is to impose duties on financial institutions that provide for the investment, safe custody and administration of funds and trust property.[391] Trust property is defined as:

> 'Any corporeal or incorporeal, moveable or immoveable asset invested, held, kept in safe custody, controlled, or administered or alienated by any person, partnership; company; or trust for, or on behalf of another person, partnership, company or trust, and such other person, partnership; company or trust is hereinafter referred to as the principal.'[392]

Itzikowits, Meiring and Gunning argue that this definition is sufficiently wide enough to encompass a cryptocurrency as an incorporeal asset.[393] These authors make this point only in respect of asset managers acting as financial institutions who hold cryptocurrencies, however, it is submitted that it could be interpreted to include exchanges, wallet providers and Initial Coin Offerings (ICOs) who hold cryptocurrencies for investment purposes. Therefore, if these intermediaries as a financial institution hold cryptocurrencies on behalf of its clients, this may amount to holding trust property for purposes of the FIA.[394] Therefore, the FIA can potentially regulate cryptocurrency intermediaries.

Section 2 and 3 of the FIA impose several duties on financial institutions that deal with trust property. Some of these duties include the duty to observe the utmost good faith and exercise the care and diligence required of a trustee in the exercise of his or her duties with regard to trust property, the duty not to make use of the funds or trust property in a manner calculated to gain any improper advantage for any person to the prejudice of the principal concerned and the duty to keep its assets separate from trust property.[395]

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[391] Long title of the FI Act.
[392] Section 1 of the FI Act.
[393] A Itzikowits, I Meiring, E Gunning op cit note 359 at 435.
[394] Ibid. Itzikowits; Meiring; and Gunning make this point only in respect of asset managers acting as financial institutions and who hold cryptocurrencies. This research argues that it could be interpreted to include crypto exchanges, wallet providers and ICO's who hold cryptocurrencies for investment purposes. ICO's were explained in Chapter 2 at section 2.7.
[395] Section 2 and 3 of the FI Act.

(iv) FICA

The purpose of FICA is to establish a Financial Intelligence Centre (FIC) and a money laundering and advisory council to combat financial crime such as: money laundering activities and the financing of terrorist and related activities. Further, to impose duties on institutions and other persons who might be used for money laundering and the financing of terrorist and related activities.[396] The operation of cryptocurrencies from a distributed ledger renders it difficult for the Financial Intelligence Centre to gather any financial data on institutions or other persons who are engaging in money laundering and the financing of terrorist and related activities. Therefore, adequate regulation in the cryptocurrency space is challenging.[397] FICA, however, imposes various duties on accountable institutions which include: the duty to identify and verify clients, to keep records and to report suspicious or unusual transactions to the FIC.[398]

Accountable institutions are listed in schedule 1 of FICA and include various financial institutions such as banks and money remitters.[399] No reference is made to cryptocurrency intermediaries as accountable institutions. It is submitted, however, that cryptocurrency intermediaries particularly, cryptocurrency exchanges and wallet providers be listed as accountable institutions under FICA, especially where such cryptocurrencies are involved in unlawful activities or the proceeds of unlawful activities.[400]

In this regard, a legal obligation will rest upon cryptocurrency exchanges to perform customer due diligence procedures such as identification and verification of their clients; the keeping of records relating to cryptocurrency transactions; and the reporting of suspicious or unusual cryptocurrency transactions to the FIC.

This submission is supported by the delegates of the IFWG and the CARWG supports this view and further indicate that these intermediaries should be regulated on an activity and principle basis.[401] The duty to report unusual transactions, however, not only applies to

[396] Long title of FICA.
[397] M Moyo *Determining the risks posed to South African banks by cryptocurrencies* (unpublished LLM thesis, University of Pretoria, 2018) at 13.
[398] Section 29 of FICA.
[399] Schedule 1 of FICA.
[400] A Itzikowits, I Meiring, E Gunning op cit note 359 at 434.
[401] Intergovernmental Fintech Working Group op cit note 15 at 42.

accountable institutions but to all persons who carry on business in South Africa.[402] Section 29 of FICA provides that:

> 'Any person (including an accountable institution) who carries on a business, or is in charge of, or manages a business, or is employed by a business, who knows or suspects that:
>
> (a) The business has received or is about to receive the proceeds of unlawful activities or property connected to an offence relating to the financing of terrorism;
> (b) A transaction or series of transactions to which the business is a party, facilitated or is likely to facilitate the transfer of the proceeds of unlawful activity or property relating to the financing of terrorist activities; has no apparent business or lawful business; may be relevant to the investigation of tax evasion or related generally to the financing of terrorism;
> (c) The business has been used, or is about to be used for money-laundering purposes, or the financing of terrorism;
>
> Must report the transaction to the Centre within a prescribed period.'[403]

From this analysis it is concluded that cryptocurrencies may potentially fall under the governance of the FSCA. This is because financial services legislation such as FAIS can potentially regulate cryptocurrency related products. The FIA has the potential to impose duties on businesses that hold cryptocurrencies in safe custody and FICA has the potential to impose anti-money laundering and counter terrorist financing (AML/CTF) duties on cryptocurrency intermediaries that act as financial institutions and businesses.

4.3. CONCLUSION

Research has shown that South Africa's financial legislation can accommodate the regulation of cryptocurrencies to a limited extent. Financial legislation in the payments and banking sector do not reveal the potential to accommodate the regulation of cryptocurrencies because cryptocurrencies are not payment methods or systems within South Africa's payment systems law, neither is the blockchain a payment, clearing or settlement system within the NPSA. Further, cryptocurrency intermediaries such as exchanges and miners are not considered as banks within South Africa's banking law.

On the other hand, financial legislation in the financial services sector such as FAIS, FIA, and FICA has the potential to accommodate the regulation of cryptocurrencies. This can be done by utilising existing financial regulatory tools particularly the substance over form principle to regulate the activities conducted using cryptocurrencies. FAIS has the potential because there has

[402] Supra note 396.
[403] Section 29 of FICA.

been a proliferation of businesses issuing cryptocurrency related products with cryptocurrencies forming the underlying asset of that particular product, thus, appearing to be types of financial products. These types of financial products comprise cryptocurrency derivative contracts, cryptocurrency structure securities and cryptocurrency participatory interests in collective investment schemes. Thus, businesses who issue these types of financial products will be deemed financial service providers requiring a licence under FAIS.

The FIA has the potential in circumstances where financial institutions such as cryptocurrency exchanges, wallet providers and ICOs hold cryptocurrencies in safe custody amounting to holding trust property as defined in FIA, thus, requiring adherence to the reporting obligations under sections 2 and 3.

The FICA has the potential to impose AML/CFT obligations on cryptocurrency intermediaries acting as financial institutions and businesses who provide cryptocurrency services where cryptocurrencies are used for financial crimes such as money laundering and the financing of terrorism. Therefore, it is concluded that although cryptocurrencies themselves cannot be regulated, cryptocurrency related products and services may fall under financial services legislation under the jurisdiction of the FSCA.

Thus, in these circumstances, South African financial regulators may need to consider amendments to existing financial services legislation where necessary. The next chapter will explore how international jurisdictions have implemented this regulatory approach, amongst others.

CHAPTER 5: THE INTERNATIONAL REGULATION OF CRYPTOCURRENCIES: A COMPARITIVE ANALYSIS

5.1. CHAPTER OVERVIEW

This chapter analyses the international position regarding the regulation of cryptocurrencies. It specifically considers the approaches adopted by the financial regulators of three leading technological jurisdictions namely: The United States of America (USA) being the pioneer of cryptocurrency regulation, Australia and Japan. It will further discuss the similarities and/or differences between the approaches adopted by these countries and South Africa. The rationale underlying this comparative analysis is to determine how the regulatory approaches adopted by these international jurisdictions can assist in developing a specific and coherent regulatory framework in South Africa for cryptocurrencies. These countries were chosen because they are described as some of the leading and proactive countries in adopting regulatory approaches to cryptocurrencies.[404]

Currently, at an international level there is no consistent regulatory response to cryptocurrencies.[405] Some countries such as China and Iran have barred financial institutions within their borders from participating in cryptocurrency transactions while others such as Brazil, Argentina and France allow the cryptocurrency industry to exist but have not issued specific industry laws.[406] On the other hand, the USA, Australia and Japan permit cryptocurrency markets to operate but they subject cryptocurrency intermediaries to strict rules.[407]As will be seen in this Chapter, the financial regulators of these jurisdictions have targeted consumer protection, the prevention of financial crime using anti-money laundering and counter terrorist financing measures (AML/CFT) and tax evasion as some of the main accelerators for developing regulation for cryptocurrencies and its concomitant industry.[408]

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[404] S Khatwani 'Legal status of Bitcoin and other cryptocurrencies in top 10 countries' *Coin Sutra* 28 September 2018, available at *https://coinsutra.com/regulatory-stand-of-different-countries-on-bitcoin-cryptocurrencies*, accessed on 8 June 2019.
[405] The Law Library of Congress, Global Research Center 'Regulation of Cryptocurrency in Selected Jurisdictions' *available at https://www.loc.gov/law/help/cryptocurrency/regulation -of-cryptocurrency.pdf*, accessed on 8 June 2019.
[406] Ibid.
[407] Ibid.
[408] Ibid.

5.2. THE USA

In the USA cryptocurrency regulation exists at a federal and state level. At the federal level there is no special regulatory authority governing cryptocurrencies. Regulatory responses vary amongst the Financial Crimes Enforcement Network (FinCEN), Securities and Exchange Commission (SEC), the Commodities Futures Trading Commission (CFTC) and the Internal Revenue Service (IRS). At the state level cryptocurrency regulation also varies.[409] Significantly, the Uniform Law Commission (ULC) has also developed bespoke legislation specifically regulating cryptocurrency market participants in the USA.

(a) FinCEN[410]

In 2013, FinCEN issued guiding principles confirming the applicability of the Bank Secrecy Act, 1970 (BSA) to users and exchanges of cryptocurrency activities who might be engaged in money transmission.[411] In 2014 FinCEN clarified the applicability of the BSA to miners by issuing an administrative ruling.[412] Subsequently, this would require compliance with the money service businesses (MSB) rule imposing requirements on an entity to register, file reports and maintain records of money transmission.[413] Users simply obtain cryptocurrencies to purchase real or virtual goods or services, therefore, they do not engage in money transmission and are not obliged to adhere to the money service businesses rule.[414]

Exchanges on the other hand, are obliged to adhere to the money service business rule because they engage in money transmission by accepting and transmitting cryptocurrencies or buying or selling cryptocurrencies in exchange for real currencies or other cryptocurrencies.[415]

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[409] This research is limited to cryptocurrency regulation at the federal level in the US.

[410] FinCEN is a bureau of the USA Department of the Treasury. The purpose of FinCEN is to safeguard the US financial system from illicit use and combat money laundering. The Bank Secrecy Act authorises FinCEN to issue regulations requiring banks and other financial institutions to exercise precaution against financial crime, including the establishment of anti-money laundering and the countering of terrorism programmes.

[411] Department of the Treasury Financial Crimes Enforcement Network *Application of FinCEN's Regulations to persons administering, exchanging or using Virtual Currencies* FIN-2013-G001 (2013) at 1. FinCEN defines money transmission services as: the acceptance of currency, funds or other value that substitutes for currency to another location or person by any means.

[412] Department of the Treasury Financial Crimes Enforcement Network *Application of FinCEN's Regulations to Virtual Currency Mining Operations* FIN-2014-R001 (2014) at 1. See also, chapter 2 section 2.6 (e) which discusses the concept of miners.

[413] S Middlebrook & S Hughes 'Regulating cryptocurrencies in the United States: Current Issues and Future Directions (2014) 40 *Wiliam Mitchell Law Review* 813 at 828.

[414] Department of the Treasury Financial Crimes Enforcement Network op cit note 411 at 2.

[415] Department of the Treasury Financial Crimes Enforcement Network op cit note 411 at 3.

In determining the applicability of the BSA to mining cryptocurrencies, FinCEN indicated that:

> 'The label applied to a particular process of obtaining a cryptocurrency is not material to the legal characterisation under the BSA of the process or of the person engaging in the process to send that cryptocurrency or its equivalent value to any other person or place. What is material to the conclusion that a person is not an MSB is not the mechanism by which the person obtains the cryptocurrency, but what the person uses the cryptocurrency for, and for who's benefit.'[416]

Therefore, a user who mines cryptocurrencies for their own purpose and not for the benefit of another is not an MSB in terms of the BSA because these activities involve neither the acceptance nor transmission of cryptocurrencies, and do not constitute the transmission of funds within the meaning of the BSA.[417]

(b) SEC

The securities and commodities regulations focus on two different legal issues involving cryptocurrencies. First, whether or not investments purchased with cryptocurrencies are investment contracts falling within the definition of securities. Secondly, whether or not investing in cryptocurrencies constitutes the activity of securities offerings, thus, imposing securities laws obligations on cryptocurrency investors.

(i) Investments purchased with cryptocurrencies

The SEC recognised Bitcoin as a legitimate form of money in the case of *SEC v Shavers*.[418] The defendant Trendon Shavers (Shavers) was the founder of Bitcoin Savings and Trust who defrauded investors by using their investments for his own personal use.[419] The SEC held that it had jurisdiction over the matter because the Bitcoin investments were investment contracts falling within the definition of securities.[420] The court used the Howey Test which provides that for investment contracts to be regarded as securities it must involve an investment of money in a common enterprise with the expectation of profits from the efforts of a promoter or third party.[421]

[416] Department of the Treasury Financial Crimes Enforcement Network op cit note 412 at 2.
[417] Department of the Treasury Financial Crimes Enforcement Network op cit note 412 at 3.
[418] *Securities and Exchange Commission v Trendon T. Shavers and Bitcoin Savings and Trust Case No. 4: 13-CV-416 United States District Court* at 2.
[419] Ibid at 1.
[420] Ibid at 4.
[421] Ibid at 3.

Accordingly, Bitcoin investments constituted an investment of money because:

> 'Bitcoin can be used as money to purchase goods or services and pay for expenses. Bitcoin, however, is limited to those places that accept it as currency. Bitcoin can also be exchanged for conventional currencies. Therefore, Bitcoin is a currency or form of money, therefore, an investment of money.'[422]

The court further held that because investors were dependent on Shavers expertise in the Bitcoin market there was a common enterprise between them.[423] Shavers also promised a substantial return on their investments which instilled an expectation in them that profit will be received daily from his efforts. [424]

(ii) Investing in cryptocurrencies

The SEC focuses on ICOs and indicates that if the token underlying the ICO activity constitutes the offering of securities, it must be accompanied by the relevant disclosures, processes, and other investor protections required by securities laws.[425] According to the SEC:

> 'A change in the structure of a securities offering does not change the fundamental point that when a security is being offered, our securities laws must be followed. Said in another way, replacing a traditional corporate interest recorded in a central ledger with an enterprise interest recorded through a blockchain entry on a distributed ledger may change the form of the transaction, but it does not change the substance…tokens and offerings that incorporate features and marketing efforts that emphasise the potential for profits based entrepreneurial or managerial efforts of others continue to contain the hallmarks of a security under USA law. Further, when promoters are launching cryptocurrencies or products tied to cryptocurrencies and who are able to demonstrate that the cryptocurrency or product is a security must comply with securities laws.'[426]

(c) CFTC[427]

In 2015, the CFTC declared cryptocurrencies to be commodities under the Commodity Exchange Act, 1936 (CEA).[428] According to Section 1a (9) of the CEA, a commodity is defined as all goods and services for tangible products, and all services, rights and interests for intangible products specifically contracts for future delivery which are presently or

[422] Ibid.
[423] Ibid.
[424] Ibid.
[425] US Securities and Exchange Commission *Statement on Cryptocurrencies and Initial Coin Offerings* (2017) at para 10.
[426] Ibid.
[427] The CFTC has authority to regulate commodities such as futures; options; and derivative contracts, and their markets.
[428] Commodity Futures Trading Commission *A CFTC Primer on Virtual Currencies* (2017) at 11.

in the future dealt in.[429]According to the CFTC, Bitcoin and other cryptocurrencies are encompassed in the definition of commodities.[430] The CFTC's jurisdiction is implicated when a cryptocurrency is used in a derivatives contract, or if there is fraud or manipulation involving a cryptocurrency traded in interstate commerce.[431] According to the CTFTC:

> 'There is no inconsistency between the SEC's analysis and the CFTC's determination that [cryptocurrencies] are commodities and that [crypto] tokens may be commodities or derivative contracts depending on the particular facts and circumstances. The CFTC looks beyond form and considers the actual substance and purpose of an activity when applying the federal commodity laws and CFTC regulations.'[432]

(d) IRS

The IRS acknowledges that while cryptocurrencies can operate like real currency in some circumstances and can be used to sell or purchase goods and services, it confirms that cryptocurrencies do not have legal tender status in any USA jurisdiction.[433] According to the IRS, the sale or exchange of cryptocurrency or the use of cryptocurrency to pay for goods or services has tax consequences resulting in tax liability.[434] The IRS treats cryptocurrencies as property for federal tax purposes, therefore, gross income tax and capital gain tax principles apply to cryptocurrency transactions. [435]

According to the IRS, receiving cryptocurrency in exchange for products and services or exchanging cryptocurrency in a transaction involving the receipt of products and services falls under the definition of gross income.[436] Since cryptocurrencies have been classified as property by the IRS, transactions involving the exchange of cryptocurrency are considered as bartering arrangements, however, only the seller incurs income during the bartering arrangement as he/she is receiving cryptocurrency in exchange for selling goods or services and must recognise the sale of the good or service as revenue. [437] A taxpayer who successfully mines cryptocurrencies realises gross income upon receipt of cryptocurrencies.[438] If the taxpayer mines cryptocurrencies

[429] Ibid.
[430] Ibid.
[431] Ibid.
[432] Ibid at 14.
[433] Internal Revenue Service *Notice 2014-21* (2014) at 1.
[434] Ibid.
[435] Ibid.
[436] D Liedel 'The Taxation of Bitcoin: How the IRS views cryptocurrencies' (2018) 66 *Drake Law Review* 107 at 117-118.
[437] Ibid at 118-119.
[438] Internal Revenue *Service Notice 2014-21* (2014) op cit note 433 at 4.

as a trade or business as a self-employee or independent contractor the net earnings from the mining activity constitutes self-employment income subject to self-employment tax.[439]

The IRS also indicates that upon the exchange of cryptocurrency for other property the taxpayer will have a capital gain or loss.[440] If the cryptocurrency is being held as a capital asset for investment purposes the taxpayer realises a capital gain or loss on the sale or exchange of the cryptocurrency.[441] If the cryptocurrency is not being held as a capital asset not for investment purposes, but for sale to customers in a trade or business then the taxpayer realises an ordinary gain or loss on the sale or exchange of the cryptocurrency.[442]

(e) ULC

In July 2017, the ULC adopted the Uniform Regulation of Virtual Currency Businesses Act, 2017 (VCB Act) to provide a statutory framework for the regulation of cryptocurrency businesses that store or transfer cryptocurrency in virtual wallets or exchange cryptocurrency for other cryptocurrencies or legal tender and vice versa.[443] The VCB Act does not regulate miners or persons creating; investing; buying; selling or trading cryptocurrency on their own behalf or for personal purposes.[444] Instead, the VCB Act introduces a three-tier licencing system upon those businesses whose volume of cryptocurrency business is between five thousand dollars and thirty-five thousand dollars or exceeds thirty-five thousand dollars annually, and any other person who conducts activities aggregately valued on an annual basis valued at five thousand dollars or less is exempt from the scope of the VCB Act.[445]

The USA can be commended for its proactive and positive attitude toward the regulation of cryptocurrencies and its concomitant industry. South Africa must learn from the USA's approach of clarifying the applicability of existing banking laws to cryptocurrency activities, and persons and businesses involved in the use of cryptocurrencies. Further, it must issue guidelines relating to the applicability of the substance over form principle as the SEC and CFTC have done.

[439] Ibid.
[440] Ibid at 3.
[441] Ibid.
[442] Ibid.
[443] Uniform Regulation of Virtual Currency Businesses Act, 2017 at 1.
[444] Ibid at 29.
[445] Ibid at 30.

Although the USA adopted these regulatory approaches, it appears that in doing so, the position of its financial regulators have overlapped with each other. This can be seen from FinCEN's licencing and reporting obligations imposed on cryptocurrency exchanges and the ULC's adoption of new legislation imposing similar obligations. On the one hand, FinCEN regulates the activity of mining. However, on the other hand the ULC does not. Thus, there appears to be a lack of co-ordination amongst USA regulators, which South Africa must avoid. This will prevent confusion amongst cryptocurrency users and businesses regarding their legal standing. It is advisable that a piece meal regulatory approach should be avoided.

5.3. AUSTRALIA

In Australia, regulatory approaches to cryptocurrencies have been considered by the Reserve Bank of Australia (RBA); the Australian Securities and Investments Commission (ASIC); the Australian Transaction Reports and Analysis Centre (AUSTRAC) and the Australian Taxation Office (ATO). In addition, the Australian Digital Currency Commerce Association (ADCA) was developed as a self-regulatory body for the Australian cryptocurrency industry.

(a) RBA[446]

In 2013, the RBA issued an information note which clarified the use of cryptocurrency as a payment system and alternative to the national currency.[447] The RBA adopts the view that the risks cryptocurrencies present to the payment system, financial system and the economy are limited because cryptocurrencies remain a niche product in Australia, therefore, they are not regulated by the RBA.[448] However, the RBA will continue to monitor the implications of cryptocurrencies and blockchain technology for the payments industry.[449]

(b) ASIC[450]

In a report entitled: *Senate inquiry into Digital Currency,* ASIC clarified that cryptocurrencies themselves do not fall within the current legal definition of a financial product because the obligations under ASIC legislation apply to the issuers of financial products subjected to product

[446] The RBA is the principle regulator of the Australian payments system. The RBA ensures efficiency and competition in the payments system and controls systematic risk.
[447] Payments Policy Department *Information Note: Bitcoin: Rehashing ideas of stone and gold* (2013) at 2.
[448] Ibid.
[449] Reserve Bank of Australia *Remarks on Cryptocurrency and Distributed Ledger Technology* (2018) at 59.
[450] ASIC is Australia's financial services and market conduct regulator and is responsible for investor and consumer protection in financial services and is responsible for the licensing of financial services businesses.

disclosure obligations because cryptocurrencies do not have an identifiable issuer. There is no central regulatory authority responsible for their creation and cryptocurrency intermediaries are not subjected to obligations owed to cryptocurrency holders.[451] Therefore, an Australian market licence and financial services licence is not required to operate a cryptocurrency exchange; trade in cryptocurrency; hold a cryptocurrency on behalf of another person; provide cryptocurrency advice or arrange for others to purchase and sell cryptocurrency under the ASIC Act, 2001 (ASIC Act).[452]

ASIC, however, indicates that facilities associated with cryptocurrencies such as contracts for the sale and purchase of cryptocurrencies which are not settled immediately, would be considered as financial products.[453] For example, contracts where the seller pays the buyer the difference between the current value of the cryptocurrency and its value when the payment is due.[454] These types of contracts are referred to as derivative contracts, which is a type of financial product.[455] If contracts for the sale and purchase of cryptocurrency are structured as derivatives, the financial services and financial markets regime would be applicable.[456] Therefore, a trading platform through which these contracts are entered into may be a financial market, and market operators and/or contracting parties may be issuers of the derivatives with obligations under the Corporations Act, 2001 (Corporations Act).[457]

ASIC, however, concludes that declaring cryptocurrencies to be financial products under the Corporations Act and ASIC Act would be problematic.[458] Since cryptocurrencies operate within a decentralised framework, normal obligations on product issuers are not applicable.[459] These may need to be tailored to clarify that cryptocurrencies do not have an identifiable issuer.[460] Moreover, the compliance costs of acquiring an Australian market licence may be burdensome for cryptocurrency trading platforms and encourage them to move offshore.[461]

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[451] Australian Securities and Investment Commission op cit note 132 at 8-11.
[452] Australian Securities and Investment Commission op cit note 132 at 3.
[453] Australian Securities and Investment Commission op cit note 132 at 13.
[454] Australian Securities and Investment Commission op cit note 132 at 14.
[455] Ibid.
[456] Ibid.
[457] Ibid.
[458] Australian Securities and Investment Commission op cit note 132 at 24.
[459] Ibid.
[460] Ibid.
[461] Australian Securities and Investment Commission op cit note 132 at 23.

ASIC further indicates that the general consumer protection provisions of Australian law apply to cryptocurrencies which require that service providers must not make false representations or engage in unethical conduct.[462] In 2017, ASIC issued a guidance note for entities developing ICOs.[463] According to ASIC, businesses operating ICOs must refrain from making misleading or deceptive statements about the products they offer and where a token offered through an ICO is a financial product, financial sector laws may be applicable.[464] For example, an ICO could be: a managed investment scheme where the value of the cryptocurrencies acquired is affected by the pooling of funds from contributors or an offer of shares where the rights attached to the token are similar to those attached to a share, such as voting rights or rights to participate in the profit.[465]

(c) AUSTRAC[466]

AUSTRAC implemented the regulation of cryptocurrency exchanges through the amendment of Australia's Anti-Money Laundering and Counter-Terrorism Financing Act, 2006.[467] Section 6 was amended to include cryptocurrency exchanges as designated services and reporting entities are obliged to register and enroll with AUSTRAC, failing which two years imprisonment and/or an administrative fine will be imposed.[468] These exchanges are obliged to report illicit activities resulting from the use of cryptocurrencies to AUSTRAC and keep records relating to consumer identification and transactions.[469]

(d) ATO

The ATO takes the view that cryptocurrency transactions operate in the same way as a barter arrangement resulting in similar tax consequences.[470] According to the ATO, cryptocurrencies are neither money nor foreign currency, and the supply of cryptocurrencies is not a financial

[462] The Senate: Economics Reference Committee *Digital Currency: game changer or bit player* (2015) at 39.
[463] Australian Securities and Investment Commission *ASIC update: Initial coin offerings and cryptocurrency* (2018) at 3.
[464] Ibid.
[465] Ibid.
[466] AUSTRAC is Australia's financial intelligence agency with the regulatory responsibility for anti-money laundering and counter-terrorism financing.
[467] M Deakin, S Liu 'New anti-money laundering and counter terrorism financing laws' *Legal Talk- Insights* 30 January 2018 at 3, available at *https://www.pwc.com.au/legal/assets/legaltalk/new-anti-money-laundering-and-counter-terrorism-financing-laws-300118.pdf*, accessed 7 July 2018.
[468] Ibid and Section 6 of the Anti-Money Laundering and Counter-Terrorism Financing Act, 2006.
[469] Ibid.
[470] The Senate: Economics Reference Committee op cit note 462 at 5.

supply for goods and services tax purposes.[471] Cryptocurrencies, however, are property for Capital Gains Tax (CGT) and those using cryptocurrency for investment or business purposes may be subject to CGT consequences when disposing cryptocurrencies.[472] Cryptocurrencies used for personal use and where the cost of the cryptocurrency was less than 10, 000 Australian dollars will not incur CGT consequences.[473] In circumstances where Bitcoin is used for the sale or exchange in the ordinary course of business, or by a taxpayer carrying on the business of mining and selling, it is regarded as trading stock and normal income tax rules apply.[474] Further, Fringe Benefit Tax is applicable on remuneration paid in cryptocurrency.[475]

(e) ADCA

ADCA was founded in 2014 and is the industry body that promotes efficiency and integrity in Australian cryptocurrency markets.[476] ADCA imposes obligations on members to comply with its industry code of conduct which establishes best practice standards for cryptocurrency businesses in Australia such as AML/CFT and Know Your Customer requirements, consumer protection, privacy and disclosure obligations to ensure that members understand their obligations under Australian law.[477] ADCA further imposes enforcement mechanisms such as suspension of a non-compliant member and removing a member's certification from their public branding.[478] Non-compliance will result in payment of compensation for losses caused to customers and termination of membership.[479] The regime also includes dispute resolution mechanisms between members and customers.[480]Australia can be commended for its proactive and positive attitude toward cryptocurrency regulation. This can be seen from the issuing of policy guidelines clarifying the applicability of financial services legislation to cryptocurrencies and its use, the issuing of consumer warnings and guidelines in respect of ICOs.

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[471] Ibid.
[472] Australian Taxation Office *Tax Determination: Income Tax: Is bitcoin a 'CGT asset' for the purposes of subsection 108- 5(1) of the Income Tax Assessment Act of 1997?* (2018) at 6.
[473] Ibid at 5.
[474] Australian Taxation Office *Tax Determination: Income Tax: is bitcoin trading stock for the purposes of subsection 70 -10 (1) of the Income Tax Assessment Act 1997?* (2018) at 4.
[475] Australian Taxation Office *Tax Determination: Fringe benefits tax: is the provision of bitcoin from an employer to an employee in respect of their employment a property fringe benefit for the purposes of subsection 136 (1) of the Fringe Benefits Tax Assessment Act 1986?* (2018) at 1.
[476] The Australian Digital Currency Association *Submission to the Financial System Inquiry Digital Currencies and Bitcoin: A proposed self-regulatory model for Australia* (2014) at 1.
[477] Ibid at 7-8.
[478] Ibid at 9.
[479] Ibid.
[480] Ibid.

Significantly, Australia developed ADCA, a self-regulatory organisation supporting the growth of the cryptocurrency landscape. These initiatives demonstrate Australia's dedication to embracing technological innovation and adapting the law to it. South African financial regulators can learn from Australia by adopting one or more of these regulatory approaches to cryptocurrency regulation in South Africa.

5.4. JAPAN

The development of the regulatory response in Japan to cryptocurrencies commenced after the world's largest cryptocurrency exchange, Mt.Gox went bankrupt. This was because approximately 750,000 worth of Bitcoins were stolen through a security breach.[481] This alerted Japanese financial regulators to the urgency of protecting consumers against the potential risks of unregulated currencies.[482] The Japanese Financial Services Agency (JFSA), the Bank of Japan (BOJ) and the National Tax Agency (NTA) of Japan adopted active approaches to the regulation of cryptocurrencies in Japan. Similar to Australia, Japan further responded by developing a self-regulatory body called the Japan Virtual Currency Association (JVCA).

(a) BOJ

In 2016, the BOJ developed a Fintech Study Group (FSG) to determine the impact of Fintech on the financial sector.[483] Significantly, the FSG clarified that cryptocurrencies does not have general acceptability within Japan and are not legally regarded as money.[484] Therefore, deliveries of cryptocurrencies are not considered as the fulfillment of monetary obligations.[485]

(b) JFSA

The JFSA responded by amending the Payment Services Act 59 of June 24, 2009 (PSA).[486] This amendment legally defines cryptocurrency as a form of payment, however, does not define

[481] M González 'Blockchain in Japan' available at *https:www.eu/sites/default/files/publications/docs/blockchaininjapan-martagonzalez.pdf at* 27, accessed on 30 November 2018.
[482] M Ishikawa 'Designing Virtual Currency regulation in Japan: Lessons from the Mt Gox case' (2017) 3 *Journal of Financial Regulation* 1 at 125.
[483] Bank of Japan Payment and Settlement Systems Department and Institute for Monetary and Economic Studies *Summary of Discussion of the Fintech Study Group* (2018) at 1.
[484] Ibid at 7.
[485] Ibid.
[486] Y Suzuki, R Oue, *et al* 'Japan Global Banking and Financial Policy Review: Fintech Legislation in Japan' at 28-29 available at *https://www.aplaw.jp/IFLR_The_Global_Banking_and_Financial_Policy_Review_2016.pdf*, accessed on 11 December 2018 and Ibid note 481.

cryptocurrency as legal tender.[487] It acknowledges that cryptocurrencies can be used to pay for goods and services and defines cryptocurrency by categorising it into two types:

(i) Type 1 cryptocurrency: Bitcoin; Litecoin and other cryptocurrencies which can be used as a payment method and is defined as:

> 'Proprietary value that is: available for a means of payment against unspecified persons in exchange for purchasing or borrowing goods or receiving services and can be exchanged with real currency against unspecified persons; is limited to proprietary value that is recorded on an electronic device or other materials in an electronic manner; excludes Japanese currencies; foreign currencies; or currency denominated assets, and is transferrable through a computer network.'[488]

(ii) Type 2 cryptocurrency: Ethereum and other cryptocurrencies which cannot be used as a payment method but can be exchanged with Bitcoin and is defined as:

> 'Proprietary value that is mutually exchangeable with Type 1 cryptocurrency against unspecified persons, and that is transferrable through a computer network.'[489]

Secondly, the amendment requires cryptocurrency exchanges in Japan to register with the JFSA and provides that foreign cryptocurrency exchanges must register with the JFSA if they intend to carry on the business of a cryptocurrency exchange in Japan.[490] The PSA imposes various obligations on cryptocurrency exchanges such as AML/CFT obligations, consumer protection obligations such as the segregation of its assets from customers' assets and disclosure of the risks involved with cryptocurrencies.[491]

(c) JVCA

The JVCA is the self-regulatory body for cryptocurrency exchanges in Japan.[492] The JVCA comprises of 16 cryptocurrency exchanges registered with the FSA.[493] The aim of the JVCA is to foster trust and consumer protection in the cryptocurrency industry and provide guidance to

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[487] Ibid.
[488] K Kawai & T Nagase 'Virtual Currency Regulation Review: Japan' *The Law Reviews* November 2018, available at *https://www.thelawreviews.co.uk/edition/the-virtual-currency-regulation-review-editin-1/1176654/japan* at 174, accessed on 11 December 2018.
[489] Ibid.
[490] K Ohashi, M Koinuma, Y Sakamato 'New Law and regulations on Virtual Currencies in Japan' *Financial Regulatory and Compliance/ Global Anti-Corruption Alert* January 2017 at 3, available at *https://www.gtlaw.com/-/.../031724gt-alertnew-law-regualtions-on-virtual currencies-in-japan-clean.pdf*, accessed on 11 December 2018. A foreign cryptocurrency exchange business means a cryptocurrency exchange service provider that is registered with a foreign government in the foreign country under a law that provides an equivalent registration system to the system under the Japan Payment Services Act.
[491] K Kawai & T Nagase op cit note 488 at 172-173.
[492] M González op cit note 481 at 42.
[493] Ibid.

members to comply with existing regulations, including self-regulation rules.[494] The rules developed by the JVCA are accredited by the JFSA before requiring compliance by its members.[495]

(d) NTA

The NTA released guidance on the tax consequences of cryptocurrency trading for taxpayers.[496] The NTA imposes penalty taxes on taxpayers who do not pay tax on their cryptocurrency transactions, however, taxpayers holding cryptocurrency without trading them are not obliged to pay tax.[497] Taxpayers earning 200, 000 yen or more from cryptocurrency trading must pay tax and the gains from these transactions are treated as miscellaneous income.[498] Gains from using cryptocurrencies as business assets to settle receivables or payables are treated as business income.[499] The NTA taxes purchases made with cryptocurrencies taking into consideration the gains generated from cryptocurrencies if their price increased since acquisition.[500] This includes the exchange of one cryptocurrency with another cryptocurrency.[501] In addition, the activity of mining is taxable in Japan.[502]

The bankruptcy of Mt Gox demonstrates the probability that instability in the economy as a result of failing to acknowledge cryptocurrencies while in its infancy stages is likely to occur. Therefore, South African financial regulators should avoid harboring a wait and see or monitory approach to cryptocurrency regulation.

This will prevent financial loss to consumers and the regulatory burden of "picking up the pieces". Japan, however, is commended for acknowledging the payment elements of cryptocurrencies by amending its PSA to declare cryptocurrencies as acceptable payment methods. Although cryptocurrencies cannot be regarded as legal tender, their use as a payment method is not obsolete and is globally accepted by the minority of citizens. Financial regulators

[494] Ibid.
[495] M González op cit note 481 at 43.
[496] G Thornton 'Taxation of gains from cryptocurrency trading for individual taxpayers' *Japan Tax Bulletin* September 2018 at 1, available at *https://www.grantthornton.jp/globalassets/pdf/newsletter/bulletin/bulletin_201809.pdf*, accessed on 11 December 2018.
[497] Ibid.
[498] M González op cit note 481 at 42.
[499] Ibid.
[500] M González op cit note 481 at 30.
[501] Ibid.
[502] Ibid.

who do not recognise cryptocurrencies as acceptable payment methods may potentially incur the risk of not benefiting from the profits gained by the use of cryptocurrencies in the economy. Thus, South African financial regulators should consider recognising cryptocurrencies as acceptable payment methods. Japan is further commended for acknowledging the types of cryptocurrencies in use namely: first and second generation cryptocurrencies. This assists in developing a firm definition of cryptocurrencies. Therefore, South African financial regulators should consider including the categories of cryptocurrencies when developing a legal definition of cryptocurrencies.

5.5. CONCLUSION

Research has shown that similar regulatory approaches have been adopted by the financial regulators of the USA, Australia and Japan. A common approach revealed amongst these financial regulators was the clarification of existing financial legislation to cryptocurrencies and its use. This has been implemented by issuing policy guidelines and amending existing financial legislation where necessary. The use of the substance over form principle provided these financial regulators with the ability to focus on regulating the activities involving the use of cryptocurrencies which avoids the cryptocurrency industry to operate in an unregulated environment. This indicates a preference towards a functional regulatory approach. This was particularly revealed amongst jurisdictions such as the USA where both the SEC and CFTC adopted similar approaches which was founded on a key principle - the replacement of a traditional corporate interest recorded in a central ledger with an enterprise interest recorded through a blockchain entry on a distributed ledger may change the form of the transaction, but it does not change the substance.[503] Australia adopted a similar approach by clarifying that although cryptocurrencies themselves may not be regulated, facilities associated with cryptocurrencies such as cryptocurrency derivate contracts may be regulated in the same way as conventional financial products. Other similarities such as licencing, AML/CFT, consumer protection and tax obligations imposed on cryptocurrency intermediaries, including the development of self-regulatory bodies to regulate the cryptocurrency landscape were also revealed to be common approaches. This indicates that cryptocurrency regulation on an international scale consists of a blended regulatory approach, responding to the immediate risks

[503] US Securities and Exchange Commission op cit note 425 at 10.

of cryptocurrencies while simultaneously leveraging its benefits. This further indicates that the financial regulators of the USA, Australia and Japan are committed to developing the law to co-exist and respond effectively to technological innovation.

Thus, South African financial regulators should learn from these jurisdictions by adopting one or more of their regulatory approaches to accommodate the South African cryptocurrency landscape. The complex technological nature of cryptocurrencies should not be an impediment to protecting South African financial consumers and the overall financial stability of the South African economy.

CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS

6.1. CHAPTER OVERVIEW

The main objective of this research was to study, analyse and critique the regulation of cryptocurrencies in a South African context. The previous chapters intended to identify any regulatory gaps or legal grey areas in the South African regulation of cryptocurrencies. Following an analysis of these findings, this chapter will suggest possible cryptocurrency regulatory approaches for consideration by South African financial regulators. Further, at this point in time amidst the cryptocurrency regulatory conundrum, it is suggested that interim regulatory approaches are required to prevent stagnation in a rapidly growing market, whilst at the same time entrenching a culture of consumer protection.[504] Wide-scale or long-term regulatory developments may be difficult, risky and a time-consuming process.[505] Therefore, this chapter targets interim regulatory approaches which may potentially be implemented by South African financial regulators to bring cryptocurrencies within their regulatory ambit.

6.2. MAIN FINDINGS

It was found that cryptocurrencies fall under the umbrella of Financial technology (Fintech). Essentially Fintech is the merger of financial services and legal technology which transforms the way finance related activities are conducted. It was found that cryptocurrencies are one of the main innovations within the Fintech landscape having prompted global legal debate regarding the need for regulation.

Significantly, Chapter 2 concluded that the concept of cryptocurrencies lacks definitional clarity resulting in legal uncertainty. South African financial regulators have adopted various definitions of cryptocurrencies and have not yet formulated a firm legal definition thereof. Thus, to assist in proposing a firm legal definition of cryptocurrencies in South Africa, Chapter 2 explored the concept of cryptocurrencies by analysing its core technological elements; the cryptocurrency transaction process; the types of cryptocurrencies in use; the intermediaries supporting its use and the recent emergence of Initial Coin Offerings (ICOs).

[504] S Govender op cit note 251 at para 9.
[505] Ibid.

It was revealed that technically, cryptocurrencies are decentralised convertible virtual currencies which are protected by cryptography and operate through the functioning of a global computerised ledger system called the blockchain. In summation it was found that the core technological elements of cryptocurrencies are:

(i) *Decentralisation* as it enables cryptocurrencies to operate without the control of a central regulatory authority by replacing it with a framework of internal protocols that govern the operation of the system and allow the verification of transactions to be performed by participants of the network themselves through a process called mining.

(ii) *Convertibility* enabling cryptocurrencies to be exchanged back and forth for real currencies and may be used for the payment of goods and services in the real economy.

(iii) *A subset of virtual currencies* meaning that cryptocurrencies are digital in nature and function as a medium of exchange, a unit of account and a store of value. This means that cryptocurrencies can digitally facilitate transactions between parties, provide a common measure of the value of the goods and services being exchanged and can be stored for a period of time, yet still remain valuable in exchange.

(iv) *Cryptography* ensuring that transactions between parties are anonymous and secure.

(v) *A shared record keeping and processing system or public ledger account, called the blockchain*, which records every cryptocurrency transaction that takes place.

The blockchain was shown to be the main technological innovation of cryptocurrencies. This was particularly demonstrated by the types of cryptocurrencies in existence where each cryptocurrency was shown to be founded on the core element the - blockchain, however, each designed for different purposes. First generation cryptocurrencies such as Bitcoin are designed specifically for the decentralisation of payments and currency uses, whereas, second generation cryptocurrencies such as Ethereum are designed specifically for enabling other types of financial transactions other than payment transactions to occur without the control of a trusted financial institution, through the implementation of smart contracts.

Further, an analysis of the cryptocurrency transaction process demonstrated how transactions between parties can occur without the need for a trusted financial institution to control the transaction process. Users interact on the cryptocurrency network by downloading the relevant cryptocurrency software and use cryptographic codes to authorise and verify transactions.

It was further revealed that cryptocurrency transactions are, however, dependent on the existence of certain non-regulated entities such as cryptocurrency exchanges; cryptocurrency Automated Teller Machines (CATM/s); wallet providers; merchants and miners. These non-regulated entities act as intermediaries facilitating cryptocurrency transactions and function similarly to traditional financial intermediaries, thus, contradicting the decentralised concept of cryptocurrencies.

It was also found that a new form of capital raising through ICOs have emerged. It was established that the tokens issued by an ICO and cryptocurrencies differ significantly. The tokens issued by an ICO derive their value from something they represent such as company equity or access to a service, whereas, cryptocurrencies derive their value from their use as a currency or store of value.

Chapter 3 critically analysed the regulatory position adopted by South African financial regulators particularly the South African Reserve Bank (SARB), the South African National Treasury (SANT) and the South African Revenue Service (SARS). It was found that South Africa's first regulatory position on cryptocurrencies was adopted in 2014 by the SARB in the form of a position paper, following a User Alert issued by the SANT. It was established that South African financial regulators clarify what cryptocurrencies are not, however, fail to clarify what cryptocurrencies are. It was found that cryptocurrencies are not regarded as the following in South Africa:

- *legal tender* because cryptocurrencies are not issued as bank notes and coins by the SARB in terms of section 17 of the SARB Act, and a creditor is not obliged to accept cryptocurrencies as a form of payment for goods and services in South Africa;
- *electronic money* because electronic money is redeemable for cash or a deposit into a bank account on demand, whereas, cryptocurrencies are tradeable for cash;
- *a means of payment* because cryptocurrencies are not issued on receipt of funds and the use of cryptocurrencies depends on the other party's willingness to accept them; and
- *securities* because they are not defined as securities in terms of the Financial Markets Act 19 of 2012.

In considering the above factors, it was concluded that cryptocurrencies can simply be understood as:

Virtual assets of value which are not issued by a central regulatory authority, hence, they are not considered as legal tender or e-money, and which are protected by cryptography and function within a global, computerised ledger system called the blockchain. Cryptocurrencies are supported by certain non-regulated entities who act as intermediaries during cryptocurrency transactions. Cryptocurrencies can take two forms namely: first generation cryptocurrencies used specifically for payment and currency transactions; and second generation cryptocurrencies used as applications or programmes to create other cryptocurrencies or tokens and perform advanced financial transactions.

South African financial regulators further emphasised that the risks associated with cryptocurrencies are not systematic. Therefore, cryptocurrencies do not present any substantial risk to the payment system, financial stability or price stability. There are, however, other direct risks cryptocurrencies present to end-users and the financial system as a whole. For example: the loss or theft of cryptocurrencies from virtual wallets; the failure of exchanges and wallet providers resulting in the inaccessibility of user's accounts; financial crimes such as money laundering and the financing of terrorism. South African financial regulators have warned end-users to exercise caution when using cryptocurrencies as there is no recourse to South African authorities should end-users experience any of the above-mentioned risks.

Since the SARB's position paper in 2014, the South African position regarding the regulation of cryptocurrencies was dormant for four years until the SARS issued a media release setting out the tax treatment of cryptocurrencies. The SARS declared cryptocurrencies to be intangible property with normal tax consequences. Therefore, end-users of cryptocurrencies will be taxed on the profits and losses incurred from the use of cryptocurrencies. Thereafter, South African financial regulators took a positive leap forward and established a joint working group called the Intergovernmental Fintech Working Group (IFWG) to assess the regulatory implications of Fintech particularly cryptocurrencies on the financial sector. A key proposal made by the IFWG was that South Africa's financial regulatory framework which is founded on the Twin Peaks

model is sufficient to meet the needs of the cryptocurrency industry, questioning whether a new regulatory framework for cryptocurrencies was required.

Chapter 4 critically analysed this proposition against the findings in Chapter 2 and 3 and concluded that cryptocurrencies, its acquisition, trading or use thereof do not fall within the regulatory framework of the Prudential Authority (PA) and ultimately within the mandate of the SARB. It was revealed, however, that the activities associated with cryptocurrencies have the potential to be regulated by the Financial Sector Conduct Authority (FSCA), although, cryptocurrencies themselves cannot be regulated. It was revealed that cryptocurrencies do not fall within the regulatory ambit of the PA for two reasons:

1. They are not payment methods within South Africa's common law of payments. This is because:
   (i) In contrast to traditional payment methods which are issued by banks to their customers to effect transactions, cryptocurrencies are not issued by a central regulatory authority such as a bank.
   (ii) Cryptocurrencies are not cash payment methods because they are not considered as bank notes or coins which are issued by the SARB. In contrast to cash payment methods cryptocurrencies have not yet attained the acceptance of the general public that they can be used to purchase goods and services.
   (iii) Cryptocurrencies cannot be considered as non-cash payment methods particularly Electronic Fund Transfers (EFT/s). Although payments using cryptocurrencies are effected through electronic means similar to an EFT, as compared to an EFT where payment is settled and cleared through a bank, cryptocurrency transactions are cleared and settled through the blockchain without the need for a central regulatory authority to clear and settle transactions. Further, cryptocurrencies are not unconditional payment methods as compared to EFTs. They are conditional payment methods because their use depends on the other party's willingness to accept them as a payment method.

2. They are not payment systems within the National Payments Systems Act 78 of 1988 (NPSA). It was established that cryptocurrencies themselves cannot be considered as a

payment system because they are units of value storage or account. The blockchain, however, was designed to function as a payment, clearing and settlement system to effect cryptocurrency transactions. Therefore, it was significant to establish whether the blockchain could potentially fall within the framework of the NPSA. A purposive reading of the NPSA revealed the following:

(i) Although the blockchain fits the definition of payment system in the NPSA, it does not fit the definition of clearing and settlement system in the NPSA. This is because cryptocurrency transactions are cleared and settled through the process of mining. Miners operate globally across all jurisdictions within a peer-to-peer network and are not central to a single jurisdiction, whereas, in the traditional payment system, transactions are cleared and settled through centralised authorities.

(ii) The blockchain cannot be regarded as a clearing and settlement system within the NPSA because sections 6 (1) and 3 (4) of the NPSA only allow for natural and juristic persons to qualify as clearing and settlement system participants. It was established that these sections do not cater for Fintech such as the blockchain which operate as a clearing and settlement system.

(iii) Due to the globalised nature of the blockchain, it cannot fit within the framework of the NPSA which was designed to regulate the payment systems of a single jurisdiction – South Africa.

(iv) The regulation of the blockchain ultimately defeats the purpose of its existence which is to remove a central regulatory authority.

It was further established that cryptocurrencies do not fall within the mandate of the SARB because cryptocurrency intermediaries particularly miners and exchanges do not perform the role of commercial banks in terms of South Africa's banking law framework. This is because:

(i) Miners do not perform the role of central banks because they do not have exclusive jurisdiction over the cryptocurrency industry as compared to central banks which have exclusive jurisdiction over the banking industry.

(ii) Miners are not responsible for protecting the value of cryptocurrencies as compared to central banks which protect the value of the South African Rand. The value

ascribed to cryptocurrencies is determined in accordance with the principle of supply and demand i.e. the value ascribed to them from the cryptocurrency market.

(iii) Exchanges do not perform the business of banking because the deposits held by them do not meet the definition of deposit in terms of the common law of banking and the Banks Act 94 of 1990 (Banks Act).

(iv) In contrast to banks exchanges do not undertake to repay any money on demand by the cryptocurrency purchaser and/or trader. They merely act as a platform for users to purchase and/or trade cryptocurrencies.

(v) The funds held in cryptocurrency accounts are held merely for the purchase and/or trade of cryptocurrencies. There is no legal obligation of repayment on the part of the exchange. Consequently there is no debtor/creditor relationship between the exchange and the cryptocurrency purchaser and/or trader. Thus, the funds held in cryptocurrency accounts do not become the property of the exchange to be used for its own benefit.

Therefore, exchanges cannot be regarded as banks requiring a banking licence in terms of the Banks Act. It was further found that the FSCA does not have authority over cryptocurrencies because they are not financial products. This is because:

- the Financial Advisory and Intermediary Services Act 37 of 2002 (FAIS) contains no reference to cryptocurrencies in its definition of financial product;
- the Registrar of Financial Service Providers has not declared cryptocurrencies to be financial products in terms of FAIS; and
- financial products are issued by central authorities, whereas cryptocurrencies are not.

It was shown, however, that cryptocurrency related products such as cryptocurrency derivative contracts where cryptocurrencies form the underlying asset of the derivative contract may potentially be regulated as financial products under the jurisdiction of the FSCA. It was submitted that this may be done through the mechanism of the substance over form principle and the power of the FSCA to declare certain instruments and products as financial products, consequently obliging institutions who provide these services to register as financial service providers. As was shown in Chapter 5, in the United States of America (USA) the Securities and Exchange Commission (SEC) regulates the use of cryptocurrencies in securities transactions and

the Commodities Futures Trading Commission (CFTC) regulates the use of cryptocurrencies in commodity transactions such as derivative contracts.

In Australia, the Australian Securities and Exchange Commission issued a policy paper which confirmed that facilities associated with cryptocurrencies such as the use of cryptocurrencies in derivative contracts may be regulated as financial products, consequently the cryptocurrency intermediaries providing these services may be regulated as market operators under the relevant Australian financial services regulation. Thus, this provides South African financial regulators with an impetus to perform a similar task. This regulatory option is further considered in section 6.3 *(b)* below.

The Financial Markets Act 19 of 2012 (FMA) was also analysed and it was concluded that cryptocurrencies are not securities for the following reasons:

- cryptocurrencies do not fall within the definition of securities in the Financial Markets Act;
- the Registrar of Securities Services has not declared cryptocurrencies as securities;
- securities are issued by central regulatory authorities, whereas cryptocurrencies are not; and
- although cryptocurrencies can be treated as investments similar to securities, there are many other products which share this feature which are not considered to be securities.

Therefore, it was concluded that cryptocurrency exchanges cannot be regarded as securities exchanges requiring a license to trade as a securities exchange and consequently a financial market infrastructure within the framework of the FMA. The Financial Institutions Act 28 of 2001 (FIA), however, revealed the potential to accommodate for the regulation of cryptocurrency intermediaries and ICOs where these entities hold cryptocurrencies in safe custody on behalf of cryptocurrency users. This may amount to holding trust property as defined in the FIA.

Further, the FIA imposes various duties on financial institutions dealing with trust property, hence, cryptocurrency intermediaries and ICOs will be subject to theses duties if South African financial regulators decide to extend the applicability of the FIA to these entities.

The Financial Intelligence Centre Act 38 of 2001 (FICA) also revealed the potential to accommodate the regulation of cryptocurrency intermediaries. Since the use of cryptocurrencies is strongly associated with financial crimes such as money laundering and the financing of terrorism, FICA will assist regulators to impose reporting and customer due diligence duties on cryptocurrency intermediaries by categorising them as accountable institutions and all persons who carry on business in South Africa. In support of this view the Crypto Assets Regulatory Working Group (CARWG) proposes a limited regulatory framework for the South African cryptocurrency industry which involves an official body placing specific requirements on cryptocurrency intermediaries, without setting predefined conditions for formal authorisation to provide cryptocurrency related products or services.[506] Therefore, in this regard cryptocurrency intermediaries will be registered at a central point as accountable institutions and be required to comply with the anti-money laundering and counter terrorist financing (AML/CTF) requirements in FICA.[507] Accordingly, the objective of the registration process is to gain insight from market participants.[508] Consequently, this could lead to formal authorisation and designation as a registered/licensed provider for cryptocurrency services operating in South Africa at a later stage.[509]

Chapter 4 concluded that South Africa's financial services legislation has the potential to accommodate the regulation of cryptocurrencies through the aegis of the Twin Peaks model. Particularly, cryptocurrency related products and services, consequently cryptocurrency intermediaries providing these products and services may potentially fall under the regulatory ambit of the FAIS. The FIA revealed potential to accommodate cryptocurrencies as trust property imposing obligations on cryptocurrency service providers and ICOs and the FICA revealed the potential to accommodate the regulation of cryptocurrencies from an AML/CTF perspective. In this regard, it is submitted that amendments will need to be considered where necessary to accommodate the regulation of the cryptocurrency industry.

[506] Intergovernmental Fintech Working Group op cit note 16 at 22.
[507] Ibid.
[508] Intergovernmental Fintech Working Group op cit note 16 at 25.
[509] Ibid. The details of the registration process will be set out in a policy paper to be published by the SARB in 2019.

Chapter 5 demonstrated that the USA, Australia and Japan have considered similar amendments. It is suggested that South African financial regulators adopt a similar approach as this research has shown that South Africa's financial legislation is suitable to do so.

6.3. REGULATORY PROPOSALS

(a) Definitional Clarity

It is imperative that financial regulators provide definitional clarity on cryptocurrencies as it directly impacts the manner in which cryptocurrencies are classified and regulated.[510] The CARWG proposed cryptocurrencies to be termed crypto-assets particularly because cryptocurrencies share similar characteristics with currencies, securities and commodities.[511] This research further revealed that cryptocurrencies can also form the underlying asset of particular facilities such as derivative contracts and structure securities, thereby, creating cryptocurrency related financial products.

The CARWG proposes crypto-assets to be termed as:

> 'Crypto-assets are digital representations or tokens that are accessed, verified, transacted and traded electronically by a community of users. Crypto-assets are issued electronically by decentralised entities and have no legal tender status, and consequently are not considered as electronic money either. It therefore does not have statutory compensation arrangements. Crypto assets have the ability to be used for payments (exchange of such value) and for investment purposes by crypto asset users. Crypto assets have the ability to function as a medium of exchange, and/or unit of account and/or store of value within a community of crypto asset users.'[512]

It was proposed in Chapter 2 that South African financial regulators should reconsider the definitions of cryptocurrencies they have adopted. It is submitted that the CARWG can be commended to a limited extent for defining cryptocurrencies as crypto-assets. The term crypto assets indeed encapsulates the multipurpose function of cryptocurrencies and is in line with the SARS's reference to cryptocurrencies as intangible property. The controversial aspect to this definition, however, is the incorporation of the term 'issued' and 'decentralised entities'.

[510] Intergovernmental Fintech Working Group op cit note 16 at 8.
[511] Intergovernmental Fintech Working Group op cit note 16 at 9.
[512] Ibid.

According to macmillandictionery.com the term issue/d is defined as: *to announce something to people officially or to officially make things available for people to buy or use.*[513] Consequently, officially is defined as: *authorised or issued authoritively.*[514] It is submitted that to include the term issued in the definition of crypto-assets contravenes the essence of cryptocurrencies as they are not officially made available to the public by any designated authority.

Further, cryptocurrencies are unearthed by miners who are not regarded as designated authorities who officially make cryptocurrencies available to the public. Moreover, to include the term issue/d only accounts for tokens issued by ICOs and disregards cryptocurrencies such as Bitcoin and Ethereum which are not issued by a private entity. It is submitted that this lack of cohesiveness will negatively impact the regulatory treatment of cryptocurrencies in South Africa. Further, as was shown in Chapter 2 cryptocurrencies are not issued by decentralised entities, instead decentralised entities within a cryptocurrency transaction act as intermediaries facilitating cryptocurrency transactions. As was shown in Chapter 2 and throughout this research cryptocurrency intermediaries possess characteristics which may potentially bring them within the helm of a central regulatory authority. Thus, to term these entities as decentralised will eventually result in ambiguity causing regulatory arbitrage.

It is proposed that the following definition should stand as a firm legal definition of cryptocurrencies as it encapsulates the core characteristics of the overall cryptocurrency landscape:

Virtual assets of value which are not issued by a central regulatory authority, hence, not considered as legal tender or e-money, and which are protected by cryptography and function within a global, computerised ledger system called the blockchain. Cryptocurrencies are supported by certain non-regulated entities who act as intermediaries during cryptocurrency transactions. Cryptocurrencies take two forms namely: first generation cryptocurrencies used specifically for payment and currency transactions, and second generation cryptocurrencies used as applications or programmes to create other cryptocurrencies or tokens and perform advanced financial transactions, with the addition of the following phrase: Cryptocurrencies themselves

[513] Macmillan Dictionary 'Definition of Issue' available at *https://www.macmillandictionery.com/dictionary/british/issue2*, accessed on 5 May 2019.
[514] Dictionery.com 'Defintion of officially' available at *https://www.dictionery.com/browse/officially*, accessed on 5 May 2019.

are not securities, commodities or financial products, however, they can be used as an asset underlying a particular facility including but not limited to cryptocurrency derivative contracts and cryptocurrency structure securities, thus, creating cryptocurrency related financial products.

(b) A Functional Approach

It is submitted that a functional approach to cryptocurrency regulation in South Africa be adopted by its financial regulators. As demonstrated in Chapter 5, the USA, Australia and Japan favour a functional approach to the regulation of the cryptocurrency industry. According to CL. Reyes:

> 'The functional approach to financial regulation argues that in order to regulate a dynamically changing financial system, which rapidly changes in unexpected ways, it may be more effective to focus on the system's underlying, and thus less time-dependent, economic functions than to tie regulation to any specific financial architecture. A functional approach is desirable because it is well suited to a highly complex or unknown structure and it facilitates the analysis of a rapidly changing structure both of which are qualities of the financial system.'[515]

This view is supported by the CARWG which proposes a functional approach to regulate the cryptocurrency industry in South Africa.[516] According to the CARWG, instead of regulating the technology underlying cryptocurrencies, the economic function of cryptocurrencies should be regulated.[517] Therefore, the activity undertaken by users of cryptocurrencies is regulated in accordance with specific rules and standards.[518]

Although, the CARWG proposes a functional approach to the regulation of the cryptocurrency industry in South Africa, it does not specifically mention how the functional approach will be implemented. As a follow up to its predecessor paper issued in 2018 by the IFWG, the CARWG also fails to address the proposal by the IFWG that the Twin Peaks model of financial regulation in South Africa may have the potential to regulate its cryptocurrency industry. It is proposed that South African financial regulators consider this proposal. As established in Chapter 4, the cryptocurrency industry revealed the most probability towards the governance of the FSCA under the Twin Peaks model.

[515] C Reyes op cit note 83 at 224.
[516] Intergovernmental Fintech Working Group op cit note 16 at 9.
[517] Intergovernmental Fintech Working Group op cit note 16 at 7.
[518] Ibid.

The FSCA is responsible for designating certain financial products and services with the authority from the Minister of Finance in terms of the FSR Act.[519] This principle is called the substance over form principle which enables the South African regulatory framework to respond effectively to rapid changes in the financial market.[520] Significantly, the FSCA in its strategy paper entitled *Regulatory Strategy of the FSCA: October 2018 to September 2021* postulates that since the emergence of cryptocurrencies and exchanges have resulted in possible gaps in the regulatory framework, this mechanism is useful.[521] The FSCA further indicates that despite of the types of technologies created by its developers, if its developers are providing financial services activities at a significant scale, these activities must be subject to regulation to ensure that customers are treated fairly.[522] In this regard, the FSCA acknowledges that any regulatory intervention must be principle-based, activity centred and technology neutral.[523]

The introduction of the Conduct of Financial Institutions Bill, 2018 (COFI Bill) may potentially provide for these principles to be implemented in the regulation of the cryptocurrency industry. The purpose of the COFI Bill is to operate in conjunction with the FSR Act under the aegis of the Twin Peaks model and is an instrument envisaging the development of discussions and reviews by the industry for the transformation of the market conduct regulatory framework applicable to the financial services sector in South Africa.[524] Although the COFI Bill does not expressly include cryptocurrencies or its related products and services under its governance, a purposive interpretation of the proposed provisions suggest that cryptocurrency related products and services may potentially be regulated by the COFI Bill 'where the activity underlying the provision of cryptocurrency related financial products and services will be subject to market conduct regulation, despite of the type of technology used to conduct the regulated activity'.[525] For example: Schedule 2 of COFI provides for the regulation of:

> 'The sale and execution of providing a facility or performing a service or any other act (other than the performance of another authorised activity defined in the Schedule) on the instruction of a financial customer that results in the conclusion of an agreement to buy, sell, deal, invest or divest in, replace or vary one or more financial products or financial instruments or those services providing a facility, or performing a service or any other act (other than the performance of another authorised activity

[519] Financial Sector Conduct Authority *Regulatory Strategy of the Financial Sector Conduct Authority* (2018) at 50.
[520] Ibid at 12.
[521] Ibid at 14 and 50.
[522] Ibid at 47.
[523] Intergovernmental Fintech Working Group op cit note 16 at 9.
[524] S Govender 'A fintech take on the conduct of Financial Institutions Bill' (2019) 19 *Without Prejudice* 2.
[525] Ibid.

defined in the Schedule) through a website portal, web-based search utility or any other similar medium that enables the public to obtain and/or compare similar financial product prices, benefits and/or features.'[526]

It is proposed that these activities could include cryptocurrencies and its related services particularly businesses that enable the public to obtain cryptocurrency related financial products such as cryptocurrency derivative contracts and structure securities, and exchanges who provide the public to compare cryptocurrency related financial product prices, through web-based portals or search utilities for example: the Luno or Ice3x exchange websites. Schedule 2 further regulates the activity of holding assets in custody on behalf of financial customers as a business or part of a business.[527] It is submitted that this could include exchanges who hold cryptocurrencies in custody on behalf of cryptocurrency purchasers and/or traders, and wallet providers who provide the service of safekeeping of cryptocurrencies.

In addition, Schedule 2 regulates the execution of payment instructions where the consent of the payer to execute the payment transaction is given by means of any telecommunication, IT system or network operator acting only as an intermediary between the payment user. Schedule 2 further notes that this definition will be engaged upon and refined, and some terms referred to within the definition may subsequently be defined. It is submitted that this could include Bitcoin payment transactions as payers digitally authorise transactions to occur, and where payment is facilitated by intermediaries particularly exchanges and merchants who accept payment in the form of Bitcoin. The regulation of this activity, however, will not include cryptocurrencies such as Ethereum which are not used for payment transactions.

This proposal is not to directly regulate cryptocurrencies themselves or its underlying blockchain technology which will stifle its innovation, but rather to regulate the activities associated with the use of cryptocurrencies. Thus, it is proposed that the COFI Bill alongside the FSR Act and the FSCA may be the most suitable regulatory approach for the South African cryptocurrency industry. It is proposed that a chapter on Fintech should be included in the COFI Bill to include cryptocurrencies and its related products and services. This must include all cryptocurrency related definitions, including but not limited to cryptocurrencies; blockchain technology; cryptocurrency related products which comprise cryptocurrency financial products such as

[526] Schedule 2 of the Conduct of Financial Institutions Bill, 2018 at 172.
[527] Ibid at 174.

derivate contracts and structure securities; cryptocurrency related services which comprise the provision of cryptocurrency related products and cryptocurrency payment services; cryptocurrency intermediaries and ICOs. It must also include a definition of Fintech and other Fintech related definitions.

This approach can also take the form of a separate Fintech Bill to include these considerations and must be read in conjunction with other financial services laws such as FAIS, FICA, and FIA. Jurisdictions such as the USA have issued new legislation to cater for the Fintech sector. For example, in the USA, during 2017 the Fintech Protection Act H.R 5036 was issued to establish an Independent Fintech Task Force and to establish a Fintech Leadership in Innovation Program to encourage the development of tools to combat terrorist and illicit use of cryptocurrencies and for other Fintech related purposes.[528] Wyoming also introduced the Fintech Sandbox Act HB0057, which creates a Fintech sandbox for the testing of financial products and services in the Fintech sector.[529] The aim is to create a programme allowing persons to make an innovative financial product or service available to consumers during a sandbox period through a waiver of existing statutory requirements.[530] Therefore, the issuing of Fintech Bills in international jurisdictions provides South African financial regulators with the impetus to consider a similar approach.

Although the issuing of a separate Fintech Bill may be a suitable option, utilising existing financial regulatory tools particularly those under the aegis of the FSCA including the COFI Bill is preferable as it is cost effective and will avoid inconsistent regulatory approaches as was shown to be adopted by the USA in Chapter 5.

[528] Financial Technology Protection Act H.R.5036.
[529] Token Post 'Wyoming 'financial technology sandbox' bill seeks to boost blockchain and fintech innovation' *TokenPost* 31 December 2018, available at *https://tokenpost.com/Wyoming-financial-technology-sandbox-bill-seeks-to-boost-blockchain-and-fintech-innovation-990*, accessed 30 June 2019.
[530] Ibid.

(c) A Self-Regulatory Organisation (SRO)

In addition to regulating financial products and services, the FSCA regulates financial institutions that provide financial products and services.[531] It further oversees self-regulatory organisations such as securities exchanges particularly the Johannesburg Stock Exchange, central securities depositories and clearing houses.[532]

It is proposed that the development of an SRO for the cryptocurrency industry which is overseen by the FSCA may prove to be a suitable regulatory option. This view is supported by Govender who is of the view that it is a suitable option for cryptocurrency regulation in South Africa.[533] This is because it is a familiar and structured form of regulatory mechanism within the South African financial market, with the SRO status already conferred upon the JSE Limited and central securities depository.[534] The self-regulation principle does not imply that the SRO will be regulating itself, instead it will regulate the market it services.[535] SRO's regulate the affairs of the market which it services by establishing standard rules and dispute resolution mechanisms to regulate the specific industry in which it controls.[536]

Despite challenges such as conflict of interest and adequate governance, the SRO model in South Africa has proven to be an efficient and cost-effective regulatory mechanism.[537] SROs perform regulatory functions on behalf of the Registrar, under his or her supervision.[538] These functions include the licencing and supervision of market participants, including investigations into alleged regulatory breaches.[539] Before an intermediary commences rendering services, it must receive the authorisation from the relevant SRO or the FSCA.[540]

[531] Intergovernmental Fintech Working Group op cit note 16 at 12.
[532] Ibid.
[533] Staff Writer 'How Bitcoin can be regulated in South Africa' *Business Tech* 21 August 2017 at para 13, available at *https://businesstech.co.za/news/finance/193632/how-bitcoin-could-be-regulated-in-south-africa/*, accessed on 30 June 2019.
[534] Ibid.
[535] Ibid.
[536] Ibid.
[537] South African National Treasury op cit note 383 at 40.
[538] South African National Treasury op cit note 383 at 43.
[539] South African National Treasury op cit note 383 at 12.
[540] South African National Treasury op cit note 383 at 10.

These intermediaries comply with standards of governance, transparency and disclosure requirements set by the relevant SRO and the FSCA.[541] An SRO model provides investors with access to neutral redress and compensation mechanisms for misconduct by the intermediaries.[542] As was shown in Chapter 5, 16 domestic cryptocurrency exchanges in Japan formed an SRO called the Japan Virtual Currency Exchange Association, and Japan's Financial Regulatory Authority approved it as an official body. Further, the Bitcoin Association of Australia proposes that the regulation of cryptocurrencies should be self-regulatory.[543]

A self-regulatory body instills customer confidence in the entities providing cryptocurrency services.[544] It also prepares businesses rather than have regulation take effect when the industry is already in full swing, which is more difficult to implement and cause disruption to services.[545] According to the Australian Taskforce on Industry Self-Regulation, self-regulatory organisations are similar to regulation as they utilise industry codes of conduct which are drafted similar to legislative provisions which ensure that industry participants comply with certain rules and requirements and provide dispute resolution mechanisms to resolve disputes between customers.[546]

(d) A Blended Regulatory Approach

Although a self-regulatory approach to the cryptocurrency industry may be a suitable option, it does not impose a mandatory obligation on participants to be members of the SRO. Therefore, this characteristic of the self-regulatory approach makes it a weak regulatory model for the cryptocurrency industry. The strengths of the self-regulatory approach may be harnessed where an industry body could be developed, subjecting cryptocurrency intermediaries to mandatory membership and compliance with industry standards and regulations. The industry body will subsequently be under the aegis of the FSCA under the governance of the FSR Act and supported by the implementation of the COFI Bill alongside financial services laws such as FAIS, FIA and FICA.

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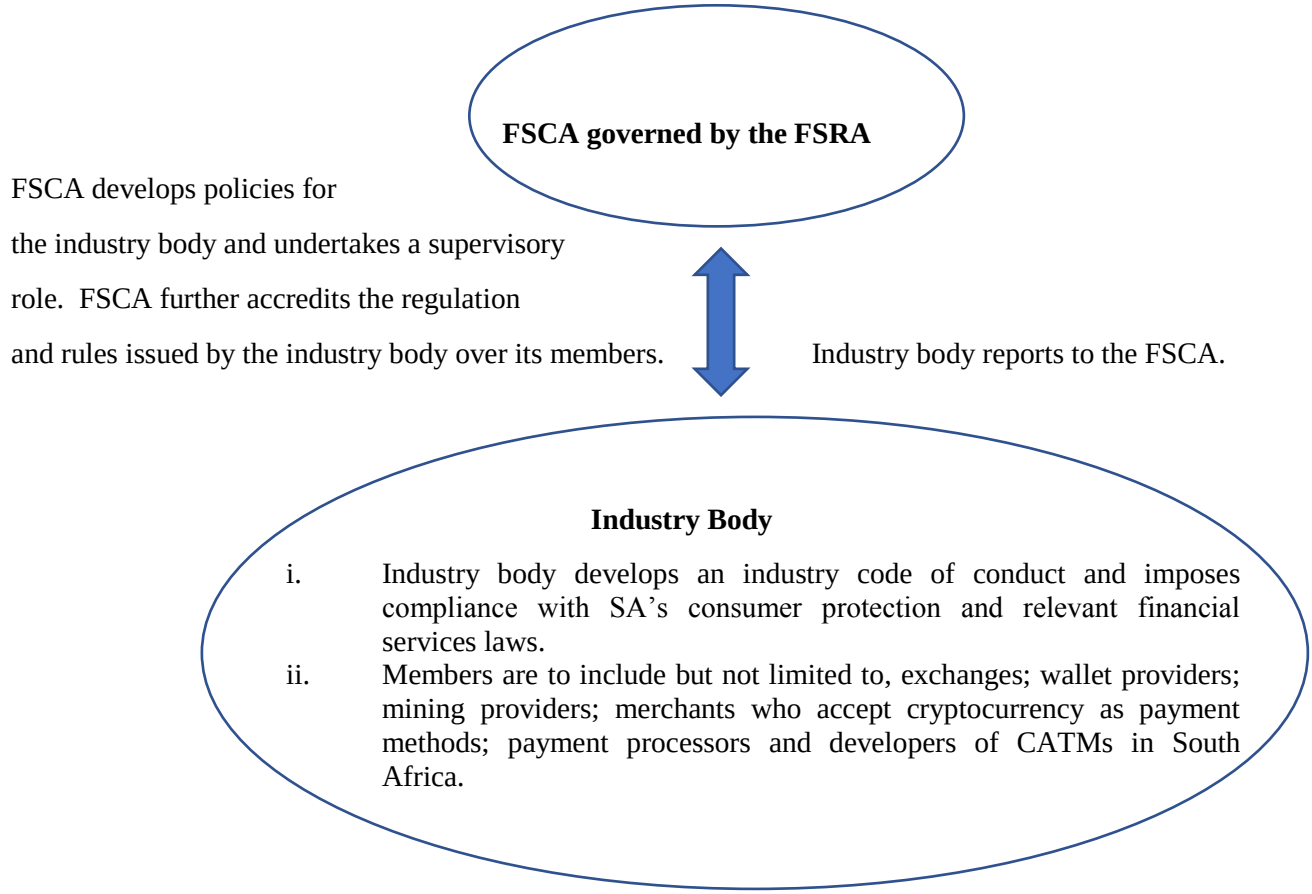
[541] Ibid.
[542] Ibid.
[543] The Senate: Economics Reference Committee op cit note 462 at 47.
[544] Ibid.
[545] Ibid.
[546] Australian Government, The Treasury, Taskforce on Industry Self-regulation *Industry self-regulation in consumer markets* (2000) at 20.

Since the COFI Bill is still in its infancy, it is submitted that it be developed to include this regulatory structure for the South African cryptocurrency landscape. Figure 1 below describes how this approach may be implemented:[547]

Figure 1: **COFI Bill as the foundational legislation**



(e) The Consumer Protection Act 68 of 2008 (CPA)

As was shown in Chapter 3, end-users of cryptocurrencies are exposed to several consumer risks. Consumers are left vulnerable as cryptocurrency intermediaries are not regulated. Therefore, there are no particular rules which provide them with protection against financial harm or loss, or provide them with a platform to resolve their consumer related disputes.[548] According to the SANT, financial regulators must consider the manner in which cryptocurrency consumers understand and interact with innovative financial products and platforms, and the type of

[547] See, page 100.
[548] Intergovernmental Fintech Working Group op cit note 16 at 15.

consumer protection measures applicable in certain circumstances.[549] Both Australia and Japan have focused on consumer protection in relation to cryptocurrencies. Australia declared that the Australian Consumer Protection laws are applicable to cryptocurrencies. It is proposed that the same method should be implemented by South African financial regulators. This is because South Africa has a vibrant and efficient consumer protection landscape. The CPA is the main consumer protection legislation in South Africa. The purpose of the CPA is to promote a fair, accessible and sustainable marketplace for consumer products and services and for that purpose to establish national and improved standards relating to consumer protection, to prohibit certain unfair marketing and business practices and to promote a consistent legislative and enforcement framework relating to consumer transactions.[550]

Further, the preamble to the CPA recognises the benefits and opportunities that recent and emerging technological changes, trading methods, patterns and agreements provide to South Africa.[551] Therefore, imposing consumer protection obligations on cryptocurrency service providers through the CPA may be a suitable option. This is because the CPA recognises recent and emerging technologies that enable consumer transactions. Therefore, a literal reading of this objective reveals that the cryptocurrency landscape may be governed by the CPA as it is a recent and emerging technology that enables consumer transactions and has introduced new types of trading methods, patterns and agreements within the South African financial market.

It is proposed that cryptocurrencies may fall within the definition of goods in section 1 of the CPA, where goods are defined as:

> 'Anything marketed for human consumption…any medium on which anything is or may be written or encoded…any software, code or other intangible product written or encoded on any medium…'[552]

As was shown in Chapter 2, cryptocurrencies can be used to pay for goods or services, can be traded for real currencies and other cryptocurrencies and vice versa, and is a store of value which means they can be used as investment vehicles. Therefore, cryptocurrencies may fall within the definition as 'anything marketed for human consumption'. It was further revealed that the

[549] South African National Treasury *Explanatory Policy Paper accompanying the Conduct of Financial Institutions Bill* (2018) at 51.
[550] Long title of the CPA.
[551] Preamble to the CPA.
[552] Section 1 of the CPA.

blockchain is a medium on which cryptocurrency transactions are encoded through the process of mining and effected through private and public cryptographic keys which are forms of code. Therefore, the blockchain may fall within the definition as 'any medium on which anything is or may be written or encoded'. Further, it was revealed that cryptocurrencies are intangible products as they are both a type of software and code which operate through the functioning of the blockchain medium. Therefore, cryptocurrencies may fall within the definition 'any software, code, or other intangible product written or encoded on any medium'. Therefore, the CPA has the potential to accommodate for cryptocurrencies as they fall within the definition of goods as defined in the CPA. The CPA, however, can only be applicable to cryptocurrency transactions which occur within South Africa.[553]

Supplier is defined as: a person who markets any goods or services.[554] As was shown in Chapter 2, cryptocurrencies and its associated services are marketed by intermediaries such as exchanges; wallet providers; miners and merchants. Therefore, the rules relating to suppliers in the CPA may potentially be applicable to these intermediaries as they fall within the definition of supplier. Consequently, cryptocurrency intermediaries would have to ensure that they engage in fair and honest dealing;[555] provide cryptocurrency related products and services on fair, just and reasonable terms and conditions, provide notice of certain terms and conditions;[556] and ensure the safety of cryptocurrency related products and services.[557] However, this duty will be limited because research has shown that cryptocurrencies are highly risky products. Therefore, suppliers must ensure that they disclose these risks in their terms and conditions.[558] Failure to do adhere to these obligations will result in fines and penalties on suppliers.

Although the CPA has the potential to regulate the cryptocurrency landscape, it must be noted that the financial service sector is not regulated by the CPA. Therefore, regulating the cryptocurrency landscape within the confines of the CPA may not be a suitable approach. It is proposed, however, that other regulatory tools such as detailed consumer protection guidelines

[553] Section 5 of the CPA provides that the CPA is applicable to every transaction occurring within South Africa, unless it is exempted in terms of section 5 (2).
[554] Section 1 of the CPA.
[555] Sections 40; 41; 42; 43; and 44.
[556] Sections 48; 49; and 51.
[557] Section 55.
[558] Section 49.

should be circulated. First, these guidelines should set out the risks, benefits and the recognised uses associated with cryptocurrencies in South Africa. Secondly, it should provide consumers with the avenues that can be used when they are faced with cryptocurrency related disputes and which regulatory body they can approach. Finally, it should indicate that the same rules applicable to suppliers in the CPA are applicable to cryptocurrency intermediaries.

6.4. CONCLUSION

Technology development seems to constantly be out of the reach of regulators providing them with the laborious task of passing legislation while creators continue to create unabated.[559] This research is a demonstration that we live in an era of ongoing and rapid change with significant implications for the regulation of financial services in response to these changes.[560] This research argued that although the main innovation behind cryptocurrencies is the concept of decentralisation which is designed to eliminate the need for a central regulatory authority, the need for regulation is important to maintain a balance in the financial sector and combat exploitation of the technology. When developing an appropriate regulatory approach to cryptocurrencies and its concomitant industry in South Africa, financial regulators should focus on three main issues:

- whether or not bespoke legislation is required;
- whether or not cryptocurrencies and its concomitant industry should be regulated by existing legislation; and
- whether or not existing legislation should be amended to accommodate for the regulation of cryptocurrencies and its concomitant industry.[561]

This research proposed a functional regulatory approach to cryptocurrencies in South Africa where the economic activity underlying the use of cryptocurrencies be regulated rather than cryptocurrencies themselves. To implement this functional approach, this research proposed that a blend of existing financial regulatory approaches be unified to develop a suitable

[559] C Gamble 'The Legal and Regulatory Challenges of Decentralised Cryptocurrency: A Western Perspective' 20 *International Trade and Business Law Review* (2017) 346 at 353.
[560] South African Reserve Bank National Payment System Department *Regulatory responses to Fintech Developments* (2017) at 10.
[561] Intergovernmental Fintech Working Group op cit note 16 at 19.

regulatory approach to the cryptocurrency industry in South Africa. This involves the development of an industry regulator in the Fintech space for cryptocurrencies which is overseen by the FSCA and governed by the FSR Act in conjunction with the COFI Bill and related financial services laws.

Moreover, the aim of Fintech is to provide consumer benefits through improved access to financial products, greater flexibility, speed of delivery and competitive prices.[562] The goal for South African financial regulators is to facilitate innovation where it has the most potential and to provide improved outcomes for consumers, to strengthen household economic resilience, while ensuring that risks are anticipated, understood and managed.[563] Therefore, this research suggested that South African financial regulators should circulate consumer protection guidelines that provide consumers with the avenues that can be used when they are faced with cryptocurrency related disputes and which regulatory body to approach.

Finally, this research ultimately served as a heed to South African financial regulators to develop a specific and coherent legal and regulatory framework for the use of cryptocurrencies in South Africa and its concomitant industry. Although, South Africa has a plethora of financial regulatory tools to bring cryptocurrencies within its regulatory ambit, the ultimate question is how its financial regulators respond to leveraging these tools and gaining the most beneficial outcome. Conventional regulatory tools must be developed to incorporate technological change. As Charles Darwin famously said: "*It is not the strongest of species that survive, nor the most intelligent, but the ones most responsive to change.*"[564]

(Word count: 27299)

[562] South African National Treasury op cit note 549 at 51.
[563] Ibid.
[564] South African Reserve Bank National Payment System Department op cit note 560 at 10.

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