

A REGULATORY APPROACH TO CRYPTO-CURRENCY

IN

SOUTH AFRICA

by

ENRIQUE VICENTE RODRIGUES BRAGA

Student number: 19395966

Submitted in partial fulfilment of the requirements for the degree

MASTER OF LAWS IN BANKING

in the

FACULTY OF LAW

at the

UNIVERSITY OF PRETORIA

Supervisor: Prof C M Van Heerden

December 2020

DECLARATION

University of Pretoria

Declaration of originality

This document must be signed and submitted with every essay, report, project, assignment, mini-dissertation, dissertation and/or thesis



Full names of student:

ENRIQUE VICENTE RODRIGUES BRAGA

Student number: U19395966

Declaration

1. I understand what plagiarism is and am aware of the University's policy in this regard.
2. I declare that this mini-dissertation (e.g. essay, report, project, assignment, mini-dissertation, dissertation, thesis, etc) is my own original work. Where other people's work has been used (either from a printed source, Internet or any other source), this has been properly acknowledged and referenced in accordance with departmental requirements.
3. I have not used work previously produced by another student or any other person to hand in as my own.
4. I have not allowed, and will not allow, anyone to copy my work with the intention of passing it off as his or her own work.

Signature of student:

A handwritten signature in black ink, appearing to read 'E. Rodrigues', is written over a dotted line. The signature is fluid and cursive.

ACKNOWLEDGEMENTS

First and foremost, I would like to thank God Almighty, for whom nothing is impossible. Thank you for giving me the ability, knowledge, and strength to undertake and complete this study. Without his blessings, this achievement would not have been possible.

To my parents, Ricardo and Grace Braga, thank you for providing me with the opportunity to write this study and for all the support that you provided me during the writing of this study. The completion of this study would not have been possible without your infinite support and encouragement.

To Prof Corlia van Heerden, thank you for endless assistance, materials and advice that you provided me during the writing of this study. This study would not have been possible without your countless invaluable insights.

LIST OF ACRONYMS

AML	Anti-Money Laundering
BP	Battle Points
BSA	Banks Secrecy Act of 1970
BTC	Bitcoin
CARWG	Crypto Assets Regulatory Working Group
CASP/s	Crypto Asset Service Provider/s
CDD	Customer Due Diligence
CFPB	Consumer Financial Protection Bureau
CJEU	Court of Justice of the European Union
CPA	Consumer Protection Act No. 68 of 2008
CRA	Canada Revenue Agency
CTF	Counter-Terrorism Funding
DCVC	Decentralised Virtual Currency
DCVCs	Decentralised Virtual Currencies
FAIS Act	Financial Advisory and
FATF	Financial Action Task Force
FDIC	Federal Deposit Insurance Corporation
FIC	Financial Intelligence Centre
FICA	Financial Intelligence Centre Act No. 38 of 2001
FIC Act	Financial Intelligence Centre Act No. 38 of 2001
FinCEN	Financial Crime Enforcement Network
FIU	Financial Intelligence Unit
FSCA	Financial Sector Conduct Authority

FSOC	Financial Stability Oversight Council
FSRA	Financial Sector Regulation Act No. 9 of 2017
GFC	The Global Financial Crisis
IFWG	Intergovernmental FinTech Working Group
IMF	International Monetary Fund
IRS	Internal Revenue Service
ITA	Income Tax Act No. 58 of 1962
KYC	Know Your Customer
ML	Money Laundering
MSB	Money Service Business
PA	Prudential Authority
PUBG	PlayerUnknown Battlegrounds
RBA	Risk Based Approach
RLC	Revenue Law Commission
SARB	South African Reserve Bank
SARS	South African Revenue Services
SARS Act	South African Revenue Services Act No. 34 of 1997
STA	The Swedish Tax Administration
TF	Terrorist Financing
UC	Unknown Cash
UK	United Kingdom
US	United States
USA	United States of America
VAT	Value-Added Tax

VAT Act	Value-Added Tax Act No. 89 of 1991
VC	Virtual Currency
VCs	Virtual Currency's

SUMMARY/PREFACE

Payment settlement systems are constantly developing, however, the emergence of Bitcoin in 2009 created a whole new ball game for regulators. This new type of currency did not play by the same rules as other currencies, with the crypto-currency being borderless (not created by any country) and transferable almost instantaneously. Further, its users remained anonymous.

This currency therefore became a breeding ground for illegal activities and disappointment. Users of the currency could use it as a form of payment system for illegal activities, by completely circumventing financial regulators. Other users took advantage of the lack of knowledge surrounding this new type of currency, running Ponzi schemes and defrauding ignorant users of their crypto-currency. Then there were the unfortunate users who, attracted to the notion of reaping large profits from the volatile nature of the currency, often found themselves disappointed when the volatile nature of the currency resulted in large trading losses.

Crypto-currency is not all that bad however. Although many risks exist with this new type of currency, there also exist benefits which conventional fiat currency cannot provide. Regulators are therefore placed in a tricky position in which they must try to regulate this new currency to mitigate the possible risks without completely side-lining the benefits posed by the currency.

However, regulators cannot create legislation without first understanding how crypto-currency functions. The ever-growing popularity of crypto-currency requires that regulators act fast but also provides many global regulatory lessons which South African regulators can learn from and use in drafting the appropriate legislation.

This dissertation considers the nature of this new currency, the way in which it functions and the risks which it comes burdened with, while looking at other regulatory approaches in order to propose legislation which should be adopted in South Africa.

CONTENTS

CHAPTER 1: INTRODUCTION.....	1
1.1 Background of the study	1
1.2 Research problem.....	3
1.3 Research question	6
1.4 Research methodology	7
1.5 Limitations of the study	7
1.6 Chapter overview	7
CHAPTER 2: CRYPTO-CURRENCIES	9
2.1 Introduction	9
2.2 The digital currency system that crypto-currency falls within	10
2.2.1 Virtual currency.....	12
A) Non-convertible virtual currency.....	12
B) Convertible virtual currency.....	14
2.3 The functioning of crypto-currency.....	16
2.3.1 The concept.....	16
2.3.2 The different parties involved.....	17
A) Creator/Inventor	17
B) Administrators	17
C) Users/Investors.....	18
C) Wallet providers	18
D) Miners.....	19
E) Exchanges and trading platforms.....	20
2.4 The risks that crypto-currencies pose	20
2.4.1 Financial stability	21
2.4.2 Money laundering and terrorism financing.....	23
2.4.3 Tax evasion	25

2.4.4 Consumer risk.....	26
2.5 Conclusion	31
CHAPTER 3: REGULATION OF CRYPTO-CURRENCY.....	32
3.1 Introduction	32
3.2 Build up to regulation in South Africa	34
3.3 Financial stability.....	35
A) South Africa	36
B) United States of America	37
3.4 Money laundering and terrorism financing	39
A) South Africa	40
B) United States of America	43
C) Other countries	46
3.5 Tax evasion.....	48
A) South Africa	48
B) United States of America	51
C) Other countries	52
3.6 Consumer risk.....	54
A) South Africa	54
B) United States of America	59
C) Other countries	60
3.7 Conclusion	60
CHAPTER 4: CONCLUSION AND RECOMMENDATIONS.....	61
4.1 Introduction	61
4.2 Chapter overview and recommendations.....	61
4.3 Conclusion	62
BIBLIOGRAPHY	64

CHAPTER 1: INTRODUCTION

1.1 Background of the study

Countries retain the right to the creation of their own currency and the supply of their currencies. In the United States of America (USA) the Federal Reserve Act,¹ grants this right to the Federal Reserve. In the United Kingdom (UK) the Currency and Bank Notes Act,² grants this right on the Bank of England. In South Africa, section 10 of the South African Reserve Bank Act,³ gives this right to the South African Reserve Bank (SARB).

These rights granted through legislation to the respective central banks are important as they also place responsibility upon those institutions, such as the SARB, Bank of England and the Federal Reserve, for the maintenance of financial stability,⁴ and the protection of that country's currency value.⁵ However, another important outcome is also achieved at the same time. That outcome is legal certainty, as people know what the value of that specific currency is against other currencies at any given time. Further, real-life items can be purchased using that currency at a price which is almost determinable prior to entering store or on-line store. For example, one knows that if they were to go buy a one-litre UHT full cream milk at SPAR today, it will cost around R12.50.⁶

Due to the rapid ever evolving nature of technology, it is no surprise that during the last decade we have seen, not only the creation of decentralised convertible virtual currencies (DCVCs), but also a rise in demand for this type of money. Therefore, countries have had to essentially share their rights to create and distribute currency with technology.⁷

¹ *Federal Reserve Act: sec 16(1)*. 12 USC 411.

² *Currency and Bank Notes Act 1954: sec 1*.

³ *South African Reserve Bank Act 90/1989: sec 10(1)(a)*.

⁴ *South African Reserve Bank Act: sec 3(2)*.

⁵ *South African Reserve Bank Act: sec 3(1)*.

⁶ De Villiers 2020. <https://www.businessinsider.co.za/pick-n-pay-woolworths-spar-checkers-shoprite-essential-food-items-price-comparison-2020-1>. Accessed on 10/02/2021.

⁷ Mothokoa 2017: 1.

The first DCVC, namely Bitcoin (BTC), was created in 2009.⁸ DCVCs are, according to the Financial Action Task Force,⁹ (FATF), also known as crypto-currency.¹⁰ Crypto-currency or DCVCs can be described as “a math-based, decentralised convertible virtual currency that is protected by cryptography” which has no administration and no oversight authority which is central.¹¹

The vast and evolving number of crypto-currencies that exist today is evidence to the exponential attraction towards crypto-currencies over the last decade. Although it is impossible to know the exact number of crypto-currencies that exist and are still active, due to their decentralised nature, more than 2 000 crypto-currencies were already listed during the period that the Crypto Asset Regulatory Working Group,¹² (CAR WG) was working on their policy paper.¹³ This is an immense difference from the 180 fiat currencies recognised by the United Nations.¹⁴

At 8 November 2019, it was estimated that there were around 3 000 if not more crypto-currencies in existence.¹⁵ An observation done four months later at 31 March 2020, on the same crypto-currency ranking and evaluation websites, revealed that each of those websites showed an increase of around 1 000 new crypto-currencies.¹⁶ This means that after four months there now exists a minimum of around 4 000 crypto-currencies, at least.

⁸ FATF 2014: 5.

⁹ The Financial Action Task Force (FATF) is an intergovernmental standard setting body that promotes the effective implementation of operational, regulatory and legal measures to combat money laundering, terrorism financing, as well as other threats to the international financial system. Due to the characteristics of DCVC's and their potential to be abused for ML/TF purposes, the FATF assessed and continues to assess the risks associated with this type of currency. Further, the FATF provides and continues to provide recommendations for the treatment of this type of currency. See FATF 2014: 5.

¹⁰ FATF 2014: 5.

¹¹ FATF 2014: 5.

¹² CAR WG is working group formed under the Intergovernmental FinTech Working Group (IFWG), represented by members of SARS and the IFWG. CAR WG was formed for the main purpose of analysing the position on crypto-currency. See Crypto Asset Regulatory Working Group 2019: 12-13.

¹³ Crypto Asset Regulatory Working Group 2019: 8 and 13.

¹⁴ Crypto Asset Regulatory Working Group 2019: 13. See also United Nations 2021. <https://treasury.un.org/operationalrates/OperationalRates.php>.

¹⁵ Liquid 2019: <https://blog.liquid.com/how-many-cryptocurrencies-are-there>. Accessed on 31/03/2020.

¹⁶ CoinGecko 2020. <https://www.coingecko.com/en>. Accessed on 31/03/2020.

CoinMarketCap 2020. <https://coinmarketcap.com/all/views/all/>. Accessed on 31/03/2020.

CoinLore 2020. https://www.coinlore.com/all_coins. Accessed on 31/03/2020.

The attraction towards crypto-currencies lie in the characteristics of these currencies as a payment method. Crypto-currencies are a highly transparent, faster, cheaper and simpler medium as a payment method,¹⁷ which, as observed by Van Valkenburg, has no “gatekeeper” controlling the network.¹⁸

Crypto-currency yields various benefits, but also pose many risks. The possible risks attached to crypto-currency become greater and pose a graver overall threat as the attraction towards this type of currency increases. Therefore, it would seem that the regulation of crypto-currencies is imperative in order to mitigate such risks. However, there currently exists no global consensus on the regulation of this type of currency.¹⁹ The FATF concurs with the need for clear regulation stating that national action is a priority due to the global nature of this type of currency along with its increasing popularity and use.²⁰

1.2 Research problem

Given the fact that crypto-currencies operate in the financial market, which is regulated very strictly, it would seem irrational to allow the continued unregulated functioning of crypto-currencies. The International Monetary Fund,²¹ (IMF) sets international standards that serves as benchmark to indicate to what countries can do with their national currencies from a regulatory perspective. However, the IMF is unable to recommend regulatory frameworks for crypto-currencies because they are not backed by any national government, and thus fall outside of the IMF's reach.²² As mentioned earlier, there are a large number of crypto-currencies already in existence with many new crypto-currencies continually being created. In South Africa, the legal functionality of these crypto-currencies is uncertain, as there currently does not exist adequate crypto-currency specific regulations or laws. DCVCs currently hold no legal tender status in South Africa, however, they are also not banned.²³ This means that

¹⁷ De Mink 2017: 32.

¹⁸ Van Valkenburgh 2016: 1.

¹⁹ Mukwehwa 2019: 2.

²⁰ FATF 2015: 4.

²¹ The IMF was created as a result of WWII with the purpose of achieving international monetary co-operation and financial stability in order to avoid future conflict. IMF 2020.

<https://www.imf.org/en/About/Factsheets/IMF-at-a-Glance>. Accessed on 11/02/2021.

²² Plassaras 2013: 380.

²³ Crypto Asset Regulatory Working Group 2019: 6.

merchants thus have the right to choose whether they accept or deny crypto-currency as payment in exchange for items and services which exist in the real world (real-world items).

Crypto-currencies or DCVCs hold many different advantages which make them immensely attractive.²⁴ Consumers, do not need a bank account to buy or hold any crypto-currency. Therefore, eliminating the banks as a middleman - thus eliminating monthly bank fees and or charges - and theoretically making payment transactions cheaper and faster as no intermediary is involved.²⁵ This is done by way of replacing the functions performed by the bank and its staff with blockchain technology.²⁶ The blockchain, alternatively known as a “public ledger”, is a platform that chronologically records every transaction between users in the system serving as the base of the verification system.²⁷ The most obvious conclusion is that the elimination of the costly middlemen provides the poor and also small businesses with a larger foothold into the financial system.

The use of blockchain technology also provides the users with anonymity while allowing them to make almost instantaneous direct transfers even across international borders without having to incur international transaction fees, exchange rates or fluctuating interest rates.²⁸ The value of a DCVC is also not affected by the inflation rates of any national currency.²⁹ Some people have seen opportunity to make financial gains in the mining of crypto-currency.³⁰ Further, the high price volatility of crypto-currency has also seemed to attract many investors, who try to profit by treating the DCVC as a high-risk speculative investment.³¹

The growing interest and demand for crypto-currency has led to greater acceptance of crypto-currency as a medium of exchange, with those willing to accept the DCVC, as payment for real-world items such as groceries or clothing. Interestingly, many

²⁴ De Mink 2017: 30.

²⁵ Xie 2019: 463.

²⁶ De Mink 2017: 30.

²⁷ Xie 2019: 460. See also Mothokoa 2017: 10.

²⁸ De Mink 2017: 32.

²⁹ De Mink 2017: 31.

³⁰ “Mining crypto-currency” entails the use of computer hardware to solve complex mathematical equations, with only one possible outcome, in order to verify digital. Miners are then paid in the crypto-currency. See Crypto Asset Regulatory Working Group 2019: 10.

³¹ SARB National Payment System Department 2014: 3. See also Crypto Asset Regulatory Working Group 2019: 9.

Venezuelans have started using BTC as opposed to their national currency.³² Closer to home, the popular crypto-currency exchange 'Luno' lists an extensive number of stores in South Africa that accept BTC as a payment method.³³ Currently South Africa also holds half of the African continents BTC ATMs³⁴ - seven to be exact.³⁵ These ATMs are not limited to BTC only and can be used for various other crypto-currencies.³⁶

The invention of crypto-currencies thus holds noteworthy possibilities for the world's poor, developing countries, and underdeveloped countries.³⁷ These possibilities promote and advance financial inclusion for the billions of people that cannot access financial services and that are unbanked.³⁸ Such financial inclusion will ultimately also thus be a step towards social justice.³⁹ It must, however, be borne in mind that DCVCs are only accessible to people with access to the internet or crypto-currency ATM's.

On the one hand, crypto-currency seems to provide a vast array of possibilities and benefits, however, on the other hand, crypto-currency does not come free of risk. A large number of risks exist due to the nature of this type of currency, with many of those risks being directly intertwined with the same benefits that crypto-currency provide. The anonymous peer-to-peer nature of DCVCs allows criminals and criminal entities to make use of DCVCs in order to realise their illegal activities or achieve their criminal goals.⁴⁰

DCVCs create a platform ripe with opportunity for illegal activities such as possible money laundering and terrorist financing. Consumers also face risk as they are not

³² Rossi 2017. <https://www.aljazeera.com/indepth/features/2017/04/venezuelans-turned-bitcoin-mining-170415124105593.html>. Accessed on 28/04/2020.

³³ Luno 2020. <https://www.luno.com/blog/en/post/south-africa-pay-with-bitcoin>. Accessed on 28/04/2020. See also Faster and Capra 2020. Chapter 5.

³⁴ BlockNewsAfrica 2020. <https://blocknewsafrica.com/bitcoin-atms-in-africa/>. Accessed on 28/04/2020.

³⁵ The ATM's are spread across South Africa with 3 in Cape Town, 2 in Pretoria, 1 in Nelspruit and 1 in Johannesburg (Amendment). As of 27 July 2020, there are now 9 BTC ATM's in South Africa: 4 in Cape Town 1 in Durban and 2 each in Johannesburg and Pretoria Above is from the source in the below footnote Coin ATM Radar 2020. <https://coinatmradar.com/country/197/bitcoin-atm-south-africa/>. Accessed on 28/04/2020.

³⁶ Coin ATM Radar 2020. <https://coinatmradar.com/country/197/bitcoin-atm-south-africa/>. Accessed on 28/04/2020.

³⁷ Ammous 2015: 19.

³⁸ Ammous 2015: 43.

³⁹ BTC payment systems are undeniably cheaper charging around 1% pf the transaction as opposed to the global average remittance fee's, which stand around 7.37%.

⁴⁰ De Mink 2017: 32.

explicitly protected by any legislation regarding DCVCs.⁴¹ As a result, crypto-currency consumers are left highly susceptible to risks such as theft or fraud through Ponzi schemes,⁴² where the perpetrators of the scheme, who often lure in investors with promises of high returns on investments, use the DCVC or fiat currency deposits received from new investors to pay existing depositors the promised investment returns.⁴³ However, of all the mentioned risks, the worst possible risk, according to the SARB, which DCVCs pose is financial instability, as consumers tie real currency to virtual tokens.⁴⁴

In light of the above-mentioned, it is evident that the South African legal framework, which lacks provision for the regulation of crypto-currency, is currently not suitable to make adequate use of the benefits or mitigate the risks which crypto-currency carries. This dissertation, thus seeks to determine the appropriate legislation that should be adopted to remedy the current legal vacuum surrounding crypto-currencies and their operation in South Africa.

1.3 Research question

In light of the above mentioned, the main legal question which this study seeks to answer is: With a main focus on the protection of financial stability, what regulatory measures should South Africa adopt so as to mitigate the inherent risks which crypto-currency pose?

In order to achieve this desired outcome, the following questions must be answered:

- a) What are DCVCs, how do they function and what are the benefits and risks associated with crypto-currency?

⁴¹ SARB National Payment System Department 2014: 5.

⁴² SARB National Payment System Department 2014: 10. See also Xie 2019: 466.

A "ponzi scheme" is any type of business or economic activity where depositors are promised higher returns than the net income generated by that company or activity. These types of operations rely on new investors to remain sustainable, as the funds from new investors are used to satisfy outstanding payments of older investors. As a result of their poor business model, if any, Ponzi schemes generally collapse when the recruit of new investors becomes difficult, or when a significant amount of investors cash out. See Herdin and Partogi 2015. 8-10.

⁴³ Securities and Exchange Commission 2013: 1.

⁴⁴ SARB National Payment System Department 2014: 12. See also Moorcroft and Vessio 2020: 40-12 – 40-13.

- b) Who are the parties involved in the crypto-currency network concept, and which parties of the regulated banking network, could these parties be equated and compared to?
- c) What is the current extent of regulation in South Africa over DCVCs contrasted against the regulation in other countries?
- d) What regulation will be required, with consideration being given to the attempts at regulating DCVCs made by other countries, so as to provide an effective regulatory framework for DCVCs in South Africa?

1.4 Research methodology

For the purposes of this dissertation, a desktop-research methodology will be used. In order to understand what crypto-currency is and how it works an explorative and analytical approach will be used. A comparative research of legislation and academic writings, both foreign and domestic, will then be conducted in order to provide the different legal positions of each jurisdiction in comparison to that of South Africa, with regard to the regulation of crypto-currency.

1.5 Limitations of the study

Although crypto-currencies are a form of borderless currency which are largely unregulated in South Africa,⁴⁵ the focus of this study is to determine how crypto-currency should be regulated in South Africa. Crypto-currencies are currently used as a popular investment method as well as, to a limited extent, a payment method. This study will look at the possibility of crypto-currency as a fiat currency and, therefore a legal tender payment method, as well as its regulation outside of being a legal tender. As a result, the concept of crypto-currency will be legally analysed.

1.6 Chapter overview

Chapter 1 is an introductory chapter which lays out the research problem, research questions, research methodology, study limitations, and chapter outline. This chapter is aimed at introducing the reader to the regulation of crypto-currency and the

⁴⁵ National Treasury 2014: 2.

necessity behind such regulation. This chapter provides the reader with a contextualizing background of the study.

Chapter 2 explores the concept of crypto-currency. It lays out: the larger scene which crypto-currency falls within, how crypto-currency functions and the parties involved. It will also explain the risks associated with crypto-currency while placing emphasis on the risks of money laundering, terrorism financing and financial instability.

Chapter 3 provides the current regulation as well as the latest proposed regulations of crypto-currency in South Africa. These regulations will be contrasted and compared against the regulatory measures taken in the USA primarily, as well as other countries, with the aim of addressing the regulatory approach needed to best address the risks discussed in chapter 2.

Chapter 4 concludes the research and provides recommendations for the regulation of crypto-currencies. The conclusions to the research questions posed in chapter 1 will be discussed and explained. This chapter also recognises other areas related to crypto-currencies which will require future research.

CHAPTER 2: CRYPTO-CURRENCIES

2.1 Introduction

During 1912, in his testimony before Congress, J.P. Morgan,⁴⁶ stated that, “Gold is money. Everything else is credit”.⁴⁷ Although not legally true, this statement describes the continuously changing and evolving concept of “money”.⁴⁸ Anything used as a medium of exchange or a means of payment is money.⁴⁹ Schulze states that any new forms of money, in order to legally qualify as “money”, should contain the following basic characteristics:

- “It must be commonly accepted as a medium of exchange, and not considered as goods, wares or merchandise;
- it should not be linked to the credit of the transferor. Put differently, it should be given and accepted as a final a payment of a debt;
- it should pass freely by mere delivery;
- it should be self-contained, requiring no collection, clearing or settlement and leaving no record; and
- the transferee should be able to take it free of the claims of prior owners or holders”.⁵⁰

However, the narrow definition of money only places focus on the “medium as a payment function” requirement, according to Singh.⁵¹ According to the ECB, anything used to exchange value in a transaction is “money” in the eyes of the law, while the term “currency” is reserved for minted forms of money, such as bank notes and coins, minted by the institution with the relevant authority.⁵² In South Africa, the SARB as

⁴⁶ John Pierpont Morgan is the founder of JP Morgan Chase & Co., which is an American investment bank. Morgan’s business experience began in 1857, when he entered the banking house of Duncan, Sherman & Co. In 1860 he became the United States representative of the great London banking house of George Peabody & Co. Morgan and Joseph Drexel (of Drexel & Co., one of the richest banking houses in America at the time) established Drexel, Morgan & Co., with the name changing in 1893 to J.P. Morgan & Co upon the death of Mr. Drexel. See White 1902: 179.

⁴⁷ JP Morgans Testimony 1912: Morgan Epigrams. Available at <https://memory.loc.gov/service/gdc/scd0001/2006/20060517001te/20060517001te.pdf>.

⁴⁸ Schulze 2004: 50.

⁴⁹ Merriam Webster 2020. <https://www.merriam-webster.com/dictionary/money>. Accessed on 17/04/2020.

⁵⁰ Schulze 2004: 51.

⁵¹ Singh 2020. <https://www.economicdiscussion.net/money/legal-functional-and-broad-definitions-of-money-functions-and-scopes/593>. 17/04/2020.

⁵² European Central Bank 2015: 24.

central bank, is the institution with such authority.⁵³ Unlike the intangible concept of money, currency can be touched and felt. Currency is thus the medium which gives life to money.⁵⁴ This therefore, means that “money” includes commodity money and *fiat* currency, which is the more recent and dominant form of money.⁵⁵

The history of money dates back many centuries and the ascent of money evolved with the ascent of man. Cowrie shells were the first objects known to be used as money.⁵⁶ Over time money evolved from commodity money to paper money and more recently electronic money, however, there is an even newer form of money that has appeared.⁵⁷ This new form of money created in 2009,⁵⁸ is popularly known as crypto-currency. Once it is established that something qualifies as money a further question arises as to whether that money qualifies as legal tender.⁵⁹ Similar to cheques, crypto-currency are currently not regarded as legal tender in South Africa and therefore not required to be accepted by creditors for payment of debts.⁶⁰

There currently exists no universally accepted definition for DCVCs, also known as crypto-currency.⁶¹ However, in order to understand how crypto-currency should be regulated, one must first understand the concept of what crypto-currency is and how it functions or operates. This chapter will explore the concept of crypto-currency so as to provide the best possible understanding of how crypto-currency should be regulated.

2.2 The digital currency system that crypto-currency falls within

The FATF makes use of the term “digital currency” to refer to any digital representation of currency. According to the FATF, there are two categories of currency which fall within the scope of this term. The first is virtual currency (VC), which refers to currency which is not issued by a government (non-*fiat* currency). The second category is

⁵³ *South African Reserve Bank Act*: sec 10(1)(a) and 14(1).

⁵⁴ EDUCBA 2020. <https://www.educba.com/money-vs-currency/>. Accessed on 17/04/2020.

⁵⁵ Dourado and Brito 2014: 1.

⁵⁶ Schulze 2004: 50.

⁵⁷ Mothokoa 2017: 8.

⁵⁸ Plassaras 2013: 383.

⁵⁹ Legal tender is money which has so been described in the legislation which controls the monetary system. See Schulze 2004: 51. See also Schulze 2004: footnote 8.

⁶⁰ Schulze 2004: 50-51.

⁶¹ Mukwehwa 2019: 9.

electronic money (e-money), which is merely a digital representation of government issued currency. Government issued currency is also known as real currency or fiat currency.⁶²

In essence, the currency reflected in a closed community or game such as: Bitcoin, Farm Cash in FarmVille; Battle Points in PlayerUnknown Battlegrounds (PUBG); and World of Warcraft Gold in World of Warcraft are all examples of VC. E-money is the contrast of VC, as e-money is a digital representation of the government issued *fiat* currency which can be redeemed for actual physical fiat currency, while VC is not government issued *fiat* currency.⁶³

The value reflected in your bank account when checking via a bank app or website, or the money transferred via an EFT, are examples of e-money. The National Payment System Department,⁶⁴ described e-money as a monetary value which is electronically stored in an electronic purse. This monetary value can be redeemed for hard cash (physical currency) or can be used to make a deposit into a bank account upon demand.⁶⁵

DCVCs are a subcategory of virtual currency (VC). According to the SARB VCs are “a digital representation of value that can be digitally traded and functions as a medium of exchange, a unit of account and/or a store of value, but does not have legal tender status”.⁶⁶ This definition is almost identical to the FATF definition of VCs, save for the addition of “in any jurisdiction” at the end of the above definition.⁶⁷ The European Central Bank (ECB) defines VCs as “a digital representation of value, not issued by a central bank, credit institution or e-money institution, which, in some circumstances, can be used as an alternative to money”.⁶⁸

Taking the above into consideration, it would seem logical that because DCVCs function as a medium of exchange, therefore meeting both the ECB’s idea of money and the narrow definition of money, it means that DCVC’s are indeed a form of money. Interestingly, DCVC’s meet all of the characteristics identified above by Schulze, save

⁶² FATF 2014: 4.

⁶³ DCVCs are tradable for fiat currency, while e-money is redeemable for fiat currency.

⁶⁴ The National Payment System Department was created with the goal of modernising the domestic payment system as well as developing a regulatory framework for a sound payment system.

⁶⁵ SARB National Payment System Department 2009: 3. See also Schulze 2004: 53.

⁶⁶ SARB National Payment System Department 2014: 2.

⁶⁷ FATF 2014: 4.

⁶⁸ European Central Bank 2015: 25.

for the “self-contained” characteristic and therefore, fail to meet Schulze’s standard in order to be considered money.

Uncontended is the fact that because VC’s are not government issued, they obviously do not satisfy the requirements to be classified as currency.

2.2.1 Virtual currency

A) Non-convertible virtual currency

As mentioned above, DCVCs are a subcategory of VCs. VCs can be convertible or non-convertible. Non-convertible VCs are intended to be used on a particular virtual platform, world or domain, generally that of online games, and are therefore, specific to that platform. Non-convertible VCs are always centralised,⁶⁹ meaning that they are administered by a single administrating authority.

The ECB has identified three types of VC schemes.⁷⁰ Two of the three types fall under non-convertible VCs, while the third type falls under convertible VCs and will thus be discussed later under the paragraph of convertible VCs.

The first type is “closed virtual currency schemes”, which is sometimes called “in-game only” schemes.⁷¹ In this scheme users will, more often than not, pay a subscription fee. Based on the user’s performance in the virtual platform or world the user will earn the platforms virtual currency. Examples of these VCs include: Farm Cash in FarmVille; Battle Points in PUBG; and World of Warcraft Gold in World of Warcraft. The VC can only be spent in the virtual world in which it was earned. As a result, almost no link exists between this group of VCs and the real-world economy.⁷² However, this does not mean that they cannot be swapped for real currency through black-markets.

The second type is “virtual currency schemes with unidirectional flow”.⁷³ As explained by the ECB, this is VCs which are purchased using *fiat* currency. Examples include: Facebook Credits; and “Unknown Cash” (UC) in PUBG, which is in additional form of

⁶⁹ Refer to Chapter 2, par 2.2.1.

⁷⁰ European Central Bank 2012: 13.

⁷¹ European Central Bank 2012: 13.

⁷² European Central Bank 2012: 13.

⁷³ European Central Bank 2012: 14.

in-game currency. UC can be purchased using fiat money, as opposed to the Battle Points (BP), which is earned by the user based on his in-game performance. These VCs can then be used to purchase real-world goods or services, such as adverts on Facebook using the Facebook Credits, or virtual world goods and services, such as clothing items and crates using the “Unknown Cash”. These VCs, however, cannot be exchanged back for *fiat* currency.⁷⁴

Both of the above types of non-convertible VCs are created with the purpose of generating a profit for the creators of that virtual platform and have limited interaction with the real economy. Due to their limited interaction, the FATF takes the view that such VCs do not pose much of a risk to financial stability.⁷⁵ Users of the virtual platform exchange real currency in exchange for the non-convertible VC, which can be used on the specific platform to advance progress in the virtual world or perform certain functions, such as purchasing in-game items of clothing or crops.⁷⁶ For the main purpose of protecting the profits generated from the sale of the VC to users’, rules are created which govern the use of the VC and prohibit the exchange of the VC for real money. These rules prohibit users from selling the VC they generate to other users, therefore restricting users from making any profit through the exchange of the non-convertible VC for *fiat* currency from other users. These rules also provide for punishment of users who violate these rules, for example through the temporary or permanent banning of the offenders account.⁷⁷ The most important take-away however, is that the rules governing the particular VC is what prevents that VC from being exchanged for *fiat* currency, thus rendering the particular VC as non-convertible.

Convertible VCs can be exchanged for physical real money as such convertible VC has a value which is equivalent in real currency.⁷⁸ The FATF points out that this is a point for contention however, as non-convertible VCs also have a real currency equivalent value. Firstly, the non-convertible VC can generally be purchased on the platform from the creators/generators of the platform at a set value of fiat currency. Secondly, there are users who do contravene the rules of the virtual platforms and sell the “black market” non-convertible VC which they generate. These users who

⁷⁴ European Central Bank 2012: 14.

⁷⁵ FATF 2014: 4-6.

⁷⁶ FATF 2014: 4-6.

⁷⁷ European Central Bank 2012: 13.

⁷⁸ FATF 2014: 4.

contravene the rules and sell the non-convertible VC to others users, generally sell the VC at a price which is cheaper than the set prices, as buyers would logically purchase game currency from the game creators if it were cheaper than the “black market currency”.⁷⁹

B) Convertible virtual currency

As pointed out, convertible VCs can be swapped and traded for *fiat* currency as they have value which equates to a value of fiat currency.⁸⁰ The rate at which a convertible VC can be exchanged for *fiat* currency, or vice versa, is determined by either a fixed or a floating,⁸¹ exchange rate.⁸²

The third type of scheme identified by the ECB is “virtual currency schemes with bidirectional flow”.⁸³ This scheme falls under convertible VCs. This type of scheme includes both centralised convertible virtual currency and decentralised convertible virtual currency (DCVC). In this scheme virtual money can be bought and sold by the users in accordance with their currencies exchange rate.⁸⁴

Xie observes that both convertible VCs and non-convertible VCs can either be centralised or decentralised. The Ripple network, another type of crypto-currency, is a type of centralised convertible VC, as the blockchain transaction validators are predetermined meaning that the network is not open to the public.⁸⁵ VCs which are both decentralised and non-convertible do, however, not exist.⁸⁶ Therefore, all non-convertible VCs are centralised. As explained by the FATF, centralised VC has a neutral third party who acts as an administrator controlling the system. This administrator will: determine the rules for the usage of the currency; issue such currency; has the authority to remove currency from circulation; and holds a payment

⁷⁹ Other in-game items may also be purchased on the black market, such as special characters, at a price which is basically determined at demand value. See Yuh 2013. <https://www.gameskinny.com/go33k/my-experiences-and-explanations-of-the-gaming-black-market>. Accessed on 14/02/2021.

⁸⁰ SARB National Payment System Department 2014: 2.

⁸¹ Based on the market supply and demand of a virtual currency.

⁸² FATF 2014: 5.

⁸³ European Central Bank 2012: 14.

⁸⁴ European Central Bank 2012: 14.

⁸⁵ Xie 2019: 462.

⁸⁶ FATF 2014: 8.

ledger.⁸⁷ Decentralised VCs on the other hand differ from centralised VCs in that they have no neutral third party controlling or “administrating” the system. DCVCs or cryptocurrency are “distributed, open-source, math-based peer-to-peer currency”, which uses cryptography to protect the currency.⁸⁸

Importantly, DCVCs remove many of the parties involved in the normal payments system. These parties include both central/reserve banks and commercial banks. Further, monetary authorities and licensed money remitters are also removed from the payment process. The users as a collective replace these entities and perform their functions.⁸⁹

Due to the manner in which DCVC’s are created, along with the way that the operation of DCVCs is interconnected with the real-world economy, the SARB’s National Payment System Department observes that they are unsurprisingly largely treated with hostility by financial regulators all over the world, who carefully observe DCVCs with great scrutiny.⁹⁰ Therefore, this study will focus on those types of convertible VCs which are decentralised, and as such have resulted in the elimination of the normal centralised administrating and monitoring parties involved in the payment system.

DCVCs have been given many different names such as: crypto-currency, digital tokens,⁹¹ crypto tokens, digital assets,⁹² and crypto assets.⁹³ Particularly, in 2018 the Crypto Assets Regulatory Working Group (CAR WG) was formed in South Africa under the Intergovernmental FinTech Working Group,⁹⁴ (IFWG) to review the position of DCVCs from a South African regulatory perspective.⁹⁵ In the CAR WGs Consultation paper on policy proposals for crypto assets published in 2019 t use is made of the term “crypto asset”.

⁸⁷ FATF 2014: 5.

⁸⁸ FATF 2014: 5.

⁸⁹ SARB National Payment System Department 2014: 3.

⁹⁰ SARB National Payment System Department 2014: 3.

⁹¹ Committee for Payments and Market Infrastructure 2018: 13.

⁹² Carney 2018: 9.

⁹³ Financial Stability Board 2018: 1.

⁹⁴ The IFWG was established in 2016, with the purpose of developing a common understanding among regulators and policymakers of financial technology (fintech) developments as well as policy and regulatory implications for the financial sector and economy. The IFWG is comprised of members from National Treasury, the SARB, Financial Sector Conduct Authority and the Financial Intelligence Centre.

⁹⁵ Crypto Asset Regulatory Working Group 2019: 5.

2.3 The functioning of crypto-currency

2.3.1 The concept

Raskin and Yermack indicate that the first created crypto-currency was Bitcoin which was designed as a “Peer to Peer Electronic Cash System”.⁹⁶ As explained, DCVCs are an “digital representation of value that is neither issued by a central bank or a public authority”.⁹⁷ As pointed out by the SARB National Payment Systems Department, the design concept of DCVCs is that it is a type of “money transfer system” that removes costly middlemen such as commercial banks, money remitters and most importantly the central bank as payments systems regulator.⁹⁸ The system is made easily available to the public who may become users of the currency quickly and easily. These users replace the costly middlemen and transparency is achieved by having the whole system available on public block chains.⁹⁹ However, the level of transparency achieved is arguable as the pseudonyms of the parties involved in a transaction may be publicly available, but the actual identities of the transacting parties may be completely indeterminable.¹⁰⁰

As indicated by the FATF, “crypto-currency” refers to DCVCs which are protected using cryptographic algorithms that generate virtual tokens/currency and enable the safe exchange of the said tokens/currency.¹⁰¹ The use of cryptography for Bitcoin underpins its investor confidence in the said crypto-currency.¹⁰² Ernstzen indicates that cryptography protects the DCVC in the same way that the security features on physical currency such as watermarks, serial numbers and security threads protect *fiat* currency from being counterfeited or misappropriated.¹⁰³ Cryptography also protects crypto-currency from “double spending”.¹⁰⁴ The large majority of DCVC’s which exist

⁹⁶ Raskin and Yermack 2016: 1. See also Morton 2020: 129-130.

⁹⁷ European Banking Authority 2014: 7.

⁹⁸ Most importantly for users of DCVCs the Reserve Bank is removed from the financial system, therefore rendering the users immune to government manipulation or interference. This importance is largely based on the users’ scepticism regarding the Reserve Bank’s power to add currency into the financial system in a process known as “quantitative easing”. See Chodorow 2016: 384-385.

⁹⁹ SARB National Payment System Department 2014: 3.

¹⁰⁰ SARB National Payment System Department 2014: 3.

¹⁰¹ FATF 2014: 5.

¹⁰² Ernstzen 2020: 26.

¹⁰³ Ernstzen 2020: 26.

¹⁰⁴ Dourado and Brito 2014: 2. See also Nabilou and Prüm 2019: 1. “Double spending” is the concept where the same money used to purchase one item is also used to purchase another item. Due to the system not transferring the currency to the seller instantaneously, the system allows the value

are all protected using such cryptographic algorithms and as such, any reference in this study to a DCVC should not be interpreted as a reference to a DCVC which does not make use of cryptographic algorithms, as no consideration is given to such DCVCs in this study. This study places focus on DCVCs which are protected by cryptographic algorithms, and thus the terms “crypto-currency” and “DCVCs” should be used interchangeably.

2.3.2 The different parties involved

The different parties involved in the process of buying and managing crypto-currencies will briefly be discussed below to enable the reader to understand how crypto-currency functions. This will also enable the reader to understand who the different participants in the crypto-currency world are and how they replace the parties in the traditional payment system.

A) Creator/Inventor

Houben and Snyers indicate that the creators of a crypto-currency may be referred to as “coin inventors”.¹⁰⁵ These inventors create a crypto-currency and develop the foundations and the initial rules for the use of the currency. Once the crypto-currency comes into operation, the inventors may decide to disappear or continue with their involvement in the currency.¹⁰⁶ Further, the inventors may either be a natural or a juristic person, whose identity is known or unknown, as the latter is the case with Bitcoin.¹⁰⁷ The inventors would thus be equivalent to the central banks who create or choose to use a certain currency.¹⁰⁸

B) Administrators

The FATF states that the administrators, as discussed above, are the natural or juristic person/s with the authority to input additional currency or remove currency from the

holder (purchaser) to use the same money and purchase another good or service. An obvious problem arises as there is not enough money in reality to pay for the goods.

¹⁰⁵ Houben and Snyers 2018: 28.

¹⁰⁶ Houben and Snyers 2018: 28.

¹⁰⁷ Raskin and Yermack 2016: 1.

¹⁰⁸ SARB National Payment System Department 2014: 3.

system. In the case of DCVCs the administrators are replaced by the users as a whole and cryptography as who control and oversee the whole system.¹⁰⁹ It must be noted that there is, however, no central administrating authority for crypto-currency.

C) Users/Investors

According to the FATF, the users of a crypto-currency would be the same people in the normal payment system: who transfer or receive *fiat* currency for the purchase of goods and/or services; or who acquire the crypto-currency as an investment; or who make person to person transfers, as such the users may be natural or juristic persons.¹¹⁰ Users can obtain crypto-currency in various manners including but not limited to: exchanging fiat currency for the DCVC on an exchange platform; receiving the DCVC from another user either as a donation or in exchange for services, goods or fiat currency; or by earning the currency through mining which will be explained under the “Miners” heading below.¹¹¹

Although consumers, in theory, do not need a bank account to purchase crypto-currency it must be pointed out that the vast majority of users who purchase crypto-currency do so using *fiat* currency which was transferred directly from their bank accounts to their wallet.¹¹² This therefore means that hindrance exists to the benefits of using DCVCs as a payment system in order to cut out banks as costly middle-men, especially where no DCVC ATMs exist in a particular geographical area.

C) Wallet providers

The CFPB in the US observe that in order to acquire any DCVC users need a wallet.¹¹³ The wallet acts as a means of storing and transferring a user’s DCVCs.¹¹⁴ The wallet creates and stores public and private cryptographic keys, which allows the user of a DCVC to access and trade their DCVC.¹¹⁵ These interlinked keys, that are generated by the wallet independently of the Bitcoin protocol, establish ownership over the

¹⁰⁹ FATF 2014: 7.

¹¹⁰ FATF 2014: 7. See also Houben and Snyers 2018: 25. See also Mothokoa 2017: 10.

¹¹¹ FATF 2014: 7. See also Houben and Snyers 2018: 25. See also Mothokoa 2017: 10.

¹¹² Mbiyavanga 2019: 4.

¹¹³ Consumer Financial Protection Bureau 2014: 2.

¹¹⁴ FATF 2014: 7.

¹¹⁵ Ernstzen 2020: 27-28.

DCVC.¹¹⁶ Erntzen indicates that anonymity is an aspect of crypto-currency that its users highly value, however, they still need some form of identity in order to send or receive their DCVC's and thus the role of the public key is to identify a user's pseudonymous identity/address.¹¹⁷ The public key could thus be thought of as a bank account number.¹¹⁸ The private key acts as a user's endorsement, allowing the user to send or receive crypto-currency, and could thus be equated to a signature on a cheque or a PIN number.¹¹⁹ The wallet is thus equivalent to commercial banks that store their customers fiat currency and facilitate the transfer or receipt of such currency.¹²⁰

D) Miners

Britto and Castillo explain that all transactions that occur in a specific DCVC economy is registered on the block chain, which is a ledger that is openly available and distributed to the public.¹²¹ Each block in the block chain is made up of a certain number of transactions, with each block linking to the next block. Crypto-currency added to a user's wallet will only become available to that user, for his use, once the transaction adding the DCVC to the user's wallet has been validated.¹²² Erntzen further explains that in order for transactions to be validated, a mathematical equation with one outcome has to be solved, otherwise known as a "cryptographic hash function".¹²³ This is the point where "miners",¹²⁴ enter the scene. Miners compete using their computer's processing power to validate transactions.¹²⁵ The first miner to validate a block is then rewarded with newly created crypto-currency, and the validated transaction is added to the blockchain.¹²⁶ Miners of Bitcoin currently receive 6.25 Bitcoin for every block that they mine,¹²⁷ however, the amount that they earn is halved

¹¹⁶ Antonopoulos 2014: 61.

¹¹⁷ Ernstzen 2020: 27.

¹¹⁸ Antonopoulos 2014: 61.

¹¹⁹ Antonopoulos 2014: 61.

¹²⁰ SARB National Payment System Department 2014: 3.

¹²¹ Brito and Castillo 2013: 4.

¹²² Ernstzen 2020: 28.

¹²³ Ernstzen 2020: 28.

¹²⁴ Antonopoulos defines a "miner" as a network node that finds valid proof-of-work for new blocks, by repeated hashing. See Antonopoulos 2014: xviii.

¹²⁵ Brito and Castillo 2013: 6-7.

¹²⁶ Brito and Castillo 2013: 6-7. See also SARS 2018.

<https://www.sars.gov.za/Media/MediaReleases/Pages/6-April-2018---SARS-stance-on-the-tax-treatment-of-cryptocurrencies-.aspx>. Accessed on 20/05/2020.

¹²⁷ In the case of the BTC DCVC, one block amounts to 1MB of Data.

after every 210 000 blocks added to the chain.¹²⁸ Each DCVC may have a different reward value for miners, as well as the number of transactions needed to form one block. Miners could therefore be equated to the Payment Clearing Houses of the current existing payment clearing and settlement system, due to the function which they perform.¹²⁹

E) Exchanges and trading platforms

As pointed out by the FATF crypto-currency exchanges allow users to sell their crypto-currency for fiat currency or buy crypto-currency using fiat currency.¹³⁰ Some exchanges, however, only accept payment in other crypto-currencies, Bitcoin being the most popular option.¹³¹ The crypto-currency is usually limited to a certain set of DCVCs approved by the platform. Well-known examples of exchanges in South Africa include Coinbase and Luno. Exchanges, such as the previously listed examples also operate as wallet providers, as the exchange only executes trades between customers which have wallets with it.¹³²

Houben and Snyers indicate that trading platforms are similar to exchanges, however, unlike exchanges that buy and sell DCVCs, trading platforms act as market places bringing different users together, where the users can directly buy or sell crypto-currency with each other. Examples of this include eBay.¹³³

2.4 The risks that crypto-currencies pose

Although there may be a myriad of risks which are inherently intertwined with the use and acceptance of crypto-currency, only the risks to financial stability (being the worst-case scenario) and the more popular risks such as: money laundering; terrorism financing; tax evasion; and consumer protection will be discussed in this dissertation.

¹²⁸ The halving of the miner's rewards is Bitcoin's way of introducing a synthetic form of inflation. See Huang 2020. <https://www.forbes.com/sites/rogerhuang/2020/05/11/seven-key-things-you-should-know-about-the-halving-of-bitcoin/#25eb0ed07b93>. Accessed on 20/05/2020.

¹²⁹ Antonopoulos 2014: 178.

¹³⁰ FATF 2014: 7.

¹³¹ Houben and Snyers 2018: 26.

¹³² Chu 2018: 2328-2329

¹³³ Houben and Snyers 2018: 27.

2.4.1 Financial stability

Financial stability, although a complex concept, has been captured in section 4 of the Financial Sector Regulation Act (FSRA).¹³⁴ According to the SARB the concept of financial stability could, however, be roughly described as the shared stability of major or “... key financial institutions and the financial markets in which they operate”.¹³⁵ This is done by managing systemic financial risk so as to avoid financial crisis.¹³⁶

The Global Financial Crisis in 2008 (hereafter referred to as the 2008 GFC) highlighted the critical importance of ensuring proper protection of financial stability. The SARB observes that, in order to protect financial stability, a robust financial system must be in place that has the ability to predict, prevent, and endure or resist domestic and international market conditions and shocks.¹³⁷ Although, it is good business practice for any company, let alone key financial institutions, to provide a robust business practice that can absorb economic shocks, the SARB points out that legislation to support the attainment of financial stability, is essential. This is because legislation sets minimum standards of compliance that creates protection from systemic risk,¹³⁸ and financial instability.¹³⁹

¹³⁴ *Financial Sector Regulation Act 9/2017*, section 1 and section 4.

Section 1 states that: “financial stability means financial stability as defined in section 4”.

Section 4 states the following: “Financial stability. — (1) For the purposes of this Act, financial stability means that—

- (a) financial institutions generally provide financial products and financial services and market infrastructures generally perform their functions and duties in terms of financial sector laws, without interruption;
- (b) financial institutions are capable of continuing to provide financial products and financial services, and market infrastructures are capable of continuing to perform their functions and duties in terms of financial sector laws, without interruption despite changes in economic circumstances; and
- (c) there is general confidence in the ability of financial institutions to continue to provide financial products and financial services, and the ability of market infrastructures to continue to perform their functions and duties in terms of financial sector laws, without interruption despite changes in economic circumstances”.

¹³⁵ SARB 2020. <https://www.resbank.co.za/Financial%20Stability/Pages/FinancialStability-Home.aspx>. Accessed 25/05/2020.

¹³⁶ SARB 2020. <https://www.resbank.co.za/Financial%20Stability/Pages/FinancialStability-Home.aspx>. Accessed 25/05/2020.

¹³⁷ SARB 2020. <https://www.resbank.co.za/Financial%20Stability/Pages/FinancialStability-Home.aspx>. Accessed 25/05/2020.

¹³⁸ Systemic risk could be understood as the existence of the possibility that, an obstacle/ failure in one company would have the ability to cause severe instability or collapse among other companies in the same industry, or through an entire economy.

¹³⁹ SARB 2020. <https://www.resbank.co.za/Financial%20Stability/Pages/FinancialStability-Home.aspx>. Accessed 25/05/2020.

As indicated by Mothokoa, financial instability could be caused by numerous factors. The following are examples of such factors but is not a closed list: global pandemics; intense asset-price and/or interest and/or exchange rate volatility; banking failures; the manifestation of systemic risks; a collapse of market liquidity; and failure of payment settlement systems.¹⁴⁰ The mentioned examples actually each provide opportunity for the failure of payment systems, however, if the appropriate legislation addressing such vulnerabilities is adopted, financial instability can be pertinently avoided. Adequate regulation is thus of the utmost importance.

The threat posed by DCVC's to financial stability lies in the link of smooth performance of payment systems, between the real economy and DCVCs, where DCVCs threaten to harm or destroy such performance.¹⁴¹ Owing to the fact that DCVCs are operating largely outside of legal regulation, new risks may arise, let alone the possibility of amplified existing risks, as greater volumes of monies can be transferred almost instantaneously without being scrutinised.¹⁴²

A factor required for a successful Payment Settlement System is liquidity (how quickly and easily an asset, such as a car, land, or money in a bank account, can be turned into hard cash for its owner or the value of the asset transferred to another party). Banks are legally required to maintain a certain ration of their capital in liquid assets, which can then be used to settle payments upon the owner's request.¹⁴³ A contributing factor to the 2008 GFC was the banks failure to maintain adequate liquid assets,¹⁴⁴ without regulation, there exists no minimum ratio of liquid assets which must be maintained by the players in the crypto-currency network.

Helms refers to the example of Akon City, which is a \$6 billion project currently being developed in Senegal. Founded by Akon, a popular pop-star, Akon City is a "futuristic cryptocurrency themed city," which will have hotels, schools, universities, a stadium, and hospitals. Akoin is the crypto-currency which will act exclusively as the medium of

¹⁴⁰ Mothokoa 2017: 30. See also SARB 2020. <https://www.resbank.co.za/Financial%20Stability/Pages/FinancialStability-Home.aspx>. Accessed 25/05/2020.

¹⁴¹ SARB National Payment System Department 2014: 12. See also European Central Bank 2012: 37-38.

¹⁴² SARB National Payment System Department 2014: 12. See also European Central Bank 2012: 37-38.

¹⁴³ Animashaun 2019: 38-39.

¹⁴⁴ Arner 2009: 111.

exchange to settle payments in this city with a crypto-currency based economy, which was also founded by Akon.¹⁴⁵ This is one example of the popular rise in the interest of crypto-currency, however, this example also showcases the billions of Dollars which is being tied to crypto-currency. Further, should Akon City fail or be the subject of a Ponzi scheme,¹⁴⁶ the possible catastrophic reaction which may carry through to the rest of Senegal is unimaginable.

2.4.2 Money laundering and terrorism financing

Money laundering,¹⁴⁷ is a global concern and thus it cannot be stressed enough that, third parties such as clearing houses are of vital importance in the work that they do, by reporting suspicious activity and ensuring that transfers are legitimate, thus acting as a protective layer against money laundering by “limiting the ability of criminals to transfer value without scrutiny”.¹⁴⁸

Understandably serious concern surrounding DCVCs is placed on money laundering, as the anonymous nature and almost instantaneous cross-border transactions, which the users of crypto-currency highly appreciate and admire, pose a serious threat to financial integrity.¹⁴⁹ This is only further exacerbated by the lack of a third party who performs functions similar to that of a clearing house.¹⁵⁰ Users of crypto-currency can use the DCVC to mask the original illegal source of the funds, in the process of money laundering, to make such funds appear clean.¹⁵¹ This would be done by using the illegally acquired funds to purchase crypto which could then be transferred to various wallets and then eventually exchanged for fiat currency.

An example is where an amount of R33 billion was used to purchase a DCVC, on an exchange in Dubai, called E-Dinar in late 2017.¹⁵² Although speculations of money laundering arose around this transaction, to date there seems to be no actual findings of such. Be that as it may, this example highlights how DCVCs provide a means for

¹⁴⁵ Helms 2020. <https://news.bitcoin.com/akon-city-akoin-cryptocurrency/>. Accessed on 21/06/2020.

¹⁴⁶ See Chapter 1, paragraph 1.2.

¹⁴⁷ The process of taking the proceeds of illegal activities and making such proceeds appear as though it was legally earned.

¹⁴⁸ Ajello 2015: 446.

¹⁴⁹ FATF 2014: 9.

¹⁵⁰ Ajello 2015: 446.

¹⁵¹ Mabunda 2018: 2.

¹⁵² Biznews 2017. <http://www.biznews.com/global-investing/2017/08/28/r33bn-transfer-uae-linked-edinar-edr-cryptocurrency/>. Accessed on 25/08/2020.

large amounts of money to be moved almost instantaneously to another country. More recently, Estonia cancelled the licenses for 500 (about 30%) DCVC firms after a \$220 billion money laundering scandal arose around Danske Bank, in an effort to tighten regulations and avoid money laundering risks. Although the DCVC firms do not seem to be directly implicated, there was concern that their exchanges may be used to facilitate money laundering.¹⁵³

Further, the DCVC can be used to transfer clean or even 'dirty/laundered money' to destinations which have been sanctioned, or the wallets of terrorist leaders and/or organisations, for the purposes of financing terrorism. The receiver of the DCVC can then exchange the DCVC for the required *fiat* currency which may be needed to fund the desired terrorist outcome. The DCVC or the *fiat* currency received in exchange may also be used to bribe people and officials who may be an obstacle to terrorist desired outcomes or even normal criminal activity.¹⁵⁴

The traits of DCVCs, which make crypto-currency an easy tool to facilitate and mask money laundering and financing of terrorism as described above, have also led to interest by criminals in the cyber arena who make use of DCVCs in cyber-criminal activity as well.¹⁵⁵ The FATF points out that this is illustrated by Silk Road, which was a website that allowed its users to buy and sell illegal goods and services such as: weapons, drugs, hacking, and stolen identity information.¹⁵⁶ At the time 20% of all Bitcoin was used on this website.¹⁵⁷

Globally, as indicated by the FATF, financial institutions are required to adopt and use a risk-based approach with regard to their customers.¹⁵⁸ The anonymity which DCVCs provide makes it almost impossible for such an approach to be applied. Further, the anonymity provided by crypto-currency flies in the face of the anti-money laundering (AML) and counter-terrorism funding (CTF) principles, like the "Know Your

¹⁵³ Gogo 2020. <https://news.bitcoin.com/estonia-revokes-500-crypto-firms-licenses-after-220-billion-money-laundering-scandal/>. Accessed on 15/06/2020.

¹⁵⁴ Kalender 2018. <https://www.ibanet.org/Article/NewDetail.aspx?ArticleUid=A9B2DAD2-BAEC-40DA-9CD1-6CA9165A9C42>. Accessed on 27/05/2020. See also Homeland Security Enterprise 2014: 98 -108.

¹⁵⁵ Ajello 2015: 435.

¹⁵⁶ FATF 2014: 11.

¹⁵⁷ Mothokoa 2017: 15.

¹⁵⁸ FATF 2015: 2-4.

Customer”,¹⁵⁹ (KYC) and “Customer Due Diligence”,¹⁶⁰ (CDD), which is the core of the global AML/CTF.¹⁶¹ The SARB vowed to “constantly monitor and analyse market and other financial and economic factors in order to identify and mitigate any emerging systemic risks”,¹⁶² however, as mentioned above, the decentralised and anonymous nature of DCVC’s would make such monitoring challenging, if not near impossible.

2.4.3 Tax evasion

Although tax avoidance is legal in South Africa, activities which fall under the classification of “tax evasion” are illegal. The South African Revenue Services (SARS) stated that normal income tax rules will continue apply to DCVCs.¹⁶³ Therefore, any taxable transactions involving DCVCs where taxes are not paid currently fall under tax evasion. There is still uncertainty, however, as to whether the gains received from trading are to be taxed as capital gains tax or income tax.¹⁶⁴ Everette remarks that the anonymous nature surrounding DCVCs presents a problem as it makes it difficult to

¹⁵⁹ The KYC guidelines require that financial institutions make an effort to verify the identity of their clients as well as the risks associated with that client. These guidelines not only assist in the combat of money laundering, they also play an important role in prudential banking as financial institutions and service companies are protected from various other risks when dealing with customers and counter-parties. The end-goal of KYC is to prevent the possibility of suspicious transactions. See See, Miru, Muhadar, & Paserangi 2019: 103-106. See also Mukwehwa 2019: 15. See also the Financial Intelligence Centre Act, sec 20A, which prohibits accountable institutions from even entering a business relation with clients who are anonymous or who appear to be fictitious.

¹⁶⁰ Financial institutions are required to carry out ongoing due diligence which entails the monitoring of their customers and any suspicious transactions. See the Financial Intelligence Centre Act, sec 21C which states that “An accountable institution must, in accordance with its Risk Management and Compliance Programme, conduct ongoing due diligence in respect of a business relationship which includes—

- (a) monitoring of transactions undertaken throughout the course of the relationship, including, where necessary—
 - (i) the source of funds, to ensure that the transactions are consistent with the accountable institution’s knowledge of the client and the client’s business and risk profile; and
 - (ii) the background and purpose of all complex, unusual large transactions, and all unusual patterns of transactions, which have no apparent business or lawful purpose; and
- (b) keeping information obtained for the purpose of establishing and verifying the identities of clients pursuant to sections 21, 21A and 21B of this Act, up to date”.

¹⁶¹ Hugo and Spruyt 2018: 227.

¹⁶² SARB National Payment System Department 2014: 13.

¹⁶³ SARS 2018. <https://www.sars.gov.za/Media/MediaReleases/Pages/6-April-2018---SARS-stance-on-the-tax-treatment-of-cryptocurrencies-.aspx>. Accessed on 26/05/2020.

¹⁶⁴ Globe Legal Research 2018. <https://www.loc.gov/law/help/cryptocurrency/world-survey.php#southafrica>. Accessed on 26/05/2020. See also Houben and Snyers 2018: 53.

identify users who should be paying tax, therefore making it easy for crypto users to evade tax.¹⁶⁵

2.4.4 Consumer risk

The lack of regulation surrounding crypto-currency creates various risks towards the consumer, however, where such a risk does not reasonably pose a great risk to financial stability, such risk will only be briefly mentioned. The risks identified by the SARB include:

- A) A user's loss of the DCVC through a technological error/failure or theft by hacking;¹⁶⁶
- B) Transfer of the DCVC to another by a party with access to the wallet, whether by error or theft;¹⁶⁷
- C) Processing errors by the wallet provider or exchange;¹⁶⁸
- D) Transaction processing errors such as incorrect amount or receiver transfers are not reversible. Henceforth, errors in a confirmed transaction, which a bank or credit card company may be able to reverse or cancel, cannot be corrected by cancellation or reversal on the blockchain.¹⁶⁹
- E) Lack of insurance for users of the DCVC;¹⁷⁰
- F) Failure to disclose fee's or volatility disclaimers may cause a user to incur financial losses;¹⁷¹
- G) Inability to access a crypto in a wallet where the access codes to the wallet were lost, destroyed or forgotten by user. This also applies to inheritances

¹⁶⁵ Everette 2017: 18.

¹⁶⁶ In 2011 the users of Mt Gox, an exchange company which oversaw 80% of Bitcoin transactions, lost \$8.75 million after the company was hacked. During 2014 a similar occurrence led to the company becoming bankrupt after \$460 million disappeared from the system. See SARB National Payment System Department 2014: 10. See also National Treasury 2014: 2.

¹⁶⁷ SARB National Payment System Department 2014: 10. See also National Treasury 2014: 2. Fraud caused the users of the MyCoin exchange to suffer a loss of around €342 million. See Osborne 2015. <https://www.zdnet.com/article/mycoin-closes-its-doors-387-million-in-investor-funds-vanishes/>. Accessed on 06/07/2020.

¹⁶⁸ SARB National Payment System Department 2014: 10. See also National Treasury 2014: 2.

¹⁶⁹ SARB National Payment System Department 2014: 10.

¹⁷⁰ SARB National Payment System Department 2014: 10.

¹⁷¹ SARB National Payment System Department 2014: 10. See also National Treasury 2014: 2.

where the PINS or credentials were lost, destroyed or not provided by the testator;¹⁷²

- H) Consumers who decide to use DCVC's to purchase goods or services are not protected, in terms of the Consumer Protection Act,¹⁷³ against any faulty goods or service.¹⁷⁴

It should be noted that, financial instability may occur in scenario A where numerous "too big to fail" companies purchase crypto-currency with a large portion of their liquidity, and then suffer such loss or theft, resulting in the inability to pay creditors. This scenario, however, a possibility is unlikely.

Apart from the above SARB identified risks, the other risks or risk aggravating facts also exist:

Firstly, there is little to no transparency requirements which apply to crypto-currency.¹⁷⁵ This is partly due to the lack of quantifying mechanisms which consumers, being the users of DCVC's, can use to measure the liquidity of exchanges. This lack, therefore also prevents consumers from being able to assess associated risks such as: bankruptcy; the exchanges' vulnerability to hackers as well as the fraudulent misappropriation.¹⁷⁶ The aforementioned undoubtedly creates an asymmetric flow of information.

Mothokoa observes that consumers with a limited knowledge of crypto-currency further coupled with the lack of transparency regarding exchanges' liquidity, or the costly process in the case of miners, would lead to consumers making "uninformed risk" choices as well as placing the said consumers at a risk of fraudulent exploitation.¹⁷⁷ Further, due to the crypto-currency's being largely unregulated, no legal protection which would be available to users of deposit guarantee schemes,¹⁷⁸ that protect depositors of money in banks

¹⁷² Consumer Financial Protection Bureau 2014: 4.

¹⁷³ Consumer Protection Act 68/2008.

¹⁷⁴ National Treasury 2014: 1. See also Mukwehwa 2019: 16-17.

¹⁷⁵ European Central Bank 2015: 20-21.

¹⁷⁶ Mothokoa 2017: 43.

¹⁷⁷ Mothokoa 2017: 21. See also SARB National Payment System Department 2014: 12.

¹⁷⁸ "Deposit guarantee schemes" are designed to provide protection to depositors who are less financially sophisticated should a bank failure occur. In essence should a depositors' bank fail, the depositors of that bank will be protected by the scheme up to a certain prescribed amount. Therefore, providing for additional customer protection and assisting financial stability by avoiding mass scale panic withdrawals. Consequently, the protection of covered deposits in all banks

exists.¹⁷⁹ The absence of a mechanism to compensate consumers creates the impression that tacitly the government will act as the guarantee or lender of last resort.¹⁸⁰

Secondly, the high price volatility of crypto-currency makes DCVCs as assets a higher risk investment, as opposed to traditional assets. The perception of the value of crypto-currency by users determines the value of the DCVC as an asset. As a result of the large regulatory abyss that currently exists, the value of crypto-currencies are subject to constant inflation and deflation. However, the volatility coupled with the abovementioned risks such as hacking and lack of transparency only make crypto-currencies riskier than they already are.¹⁸¹ As a result of the high price volatility consumers as well as merchants may be reluctant to use crypto-currency as a payment mechanism, due to the DCVC possibly being worth more or even less once the DCVC has been used to make payment.¹⁸²

Thirdly, another great risk which exists is the lack of continuity. Historically DCVCs have seen exponential growth, however, the risk that crypto-currency networks could come to an abrupt disuse or halt still exists. If the

promotes financial inclusion and dilutes the concentrated banking sector. The payments made by the scheme come from the funds which it collects from its member banks. The payments made by the member banks are calculated according to, among other factors, the banks risk profile. Therefore, incentivising banks to maintain low risk profiles, ultimately promoting the goal of maintaining financial stability.

After the 2008 GFC it was recommended by the FSF that: “Authorities should agree on an international set of principles for effective deposit insurance systems”. The International Association of Deposit Insurers (IADI) developed a set of Core Principles for effective deposit insurance systems in February 2008. The greater the compliance with the Core Principles, the greater the financial stability and depositor protection.

Further, it was indicated that an effective deposit insurance scheme requires the following external preconditions:

- “an ongoing assessment of the economy and banking system;
- sound governance of agencies comprising the financial system safety net;
- strong prudential regulation and supervision; and
- a well-developed legal framework and accounting and disclosure regime”.

See Basel Committee on Banking Supervision International Association of Deposit Insurers. Available at <https://www.bis.org/publ/bcbs151.pdf>.

¹⁷⁹ European Central Bank 2015: 21.

¹⁸⁰ Mothokoa 2017: 43.

“Lenders of last resort”: A country’s central bank acts as a lender of last resort in its capacity as a “bankers’ bank”, by providing a loan to assist banks that are suffering from a temporary liquidity crisis, and whose failure poses systemic risk. See Lastra 1999: 341-344.

¹⁸¹ European Central Bank 2015: 23.

¹⁸² European Central Bank 2015: 23.

aforementioned realises, the users of DCVC's will be left with worthless crypto-assets.¹⁸³

Fourthly, consumers may fall victim to fraud and theft through Ponzi-schemes involving illegitimate traders, exchanges or even crypto-currency. Scammers and opportunists may see the overall exponential interest and growth of crypto-currency as a money-making opportunity. The more popular examples of fraud include situations where the fraudsters:¹⁸⁴

- i) act as a "crypto-currency investment trader" on behalf of DCVC holders, as was the case with the BTC Global incident,¹⁸⁵ and the more recent Willie Breedt incident, as discussed below.¹⁸⁶ Simply explained, the said "trader" makes use of the crypto-currency deposits he receives from new investors to make payment of promised investment returns to existing investors, as opposed to properly investing the currency. The scheme constantly requires new investors, and once as the pool of new investors dries up so do the payments made to existing investors.
- ii) create "fake" crypto-currencies,¹⁸⁷ or exchanges. In a nutshell the overall idea could be explained as follows: the scammer would create the DCVC or exchange or an imitation of an existing DCVC or exchange, for users to invest in. The creator of the fraudulent DCVC or exchange will then be placed in a position to use the real DCVCs or fiat currency deposited with him for his own use. Once again, the lack of transparency coupled with the unregulated nature leaves users of crypto-currency open to suffer significant damages. The requirement of crypto-currency

¹⁸³ Sudden halts may occur as a result of the previously mentioned factor such as bankruptcy. See also European Central Bank 2015: 22.

¹⁸⁴ Xie 2019: 466, 471 and 475-476. See also Baum 2018: 4-11 and 15-16

¹⁸⁵ Nair 2019. <https://www.timeslive.co.za/news/south-africa/2019-01-24-bitcoin-scammers-btc-global-still-under-investigation-say-hawks/>. Accessed on 08/09/2020.

¹⁸⁶ Viljoen 2020. <https://www.news24.com/news24/SouthAfrica/News/former-cryptocurrency-agency-chief-declared-bankrupt-as-investors-wait-for-millions-20200706#:~:text=Former%20cryptocurrency%20agency%20chief%20declared%20bankrupt%20as%20investors%20wait%20for%20millions,-06%20Jul&text=Willie%20Breedt%2C%20CEO%20of%20VaultAge,bitcoin%20investors%20out%20of%20millions.&text=Willie%20Breedt%20is%20accused%20of,money%20investors%20had%20paid%20him>. Accessed on 06/07/2020.

¹⁸⁷ This was the case with Plexcorp where a crypto-currency was created which promised investors a return of 1 300% on their investments. See also Xie 2019: 466.

exchanges having to be registered as accountable institutions would help promote consumer protection, however, would not eradicate the risk completely. This is because illegitimate unregistered exchanges may still arise and function until the unregistered exchanges activity is detected.¹⁸⁸

Fraudsters are placed in a position where they can use the fraudulently acquired DCVCs to acquire *fiat* currency by selling the DCVCs to other purchasers, or vice versa. Alternatively, the “traders” may use the DCVCs for payment settlement purposes or even hold onto the crypto-currency for investment purposes.¹⁸⁹

In the more recent South African incident, consumers of crypto-currency stand to lose their investments, which stands at an estimated R227 million, after the chief of the crypto-currency investing agency, Willie Breedt, failed to pay back the monies owed to his clients and subsequently filed for bankruptcy.¹⁹⁰ Among others, this incident in addition to the BTC Global incident, originating in South Africa, which saw investors suffer an estimated total of R1 billion, and the \$15 million Plexcorp,¹⁹¹ scheme display the need for consumer aimed regulation. Moreover, these examples, in addition to displaying the need for consumer protection regulation, also showcase the continuance of fraudulent activities as well as the extensive scale at which such fraudulent activities may be perpetrated. Inference can be drawn that the aforementioned further indicates how failure to regulate crypto-currency could, in addition to causing consumers harm, create possible systemic risk and financial instability.

¹⁸⁸ Xie 2019: 487-488. See also Singer 2020: <https://cointelegraph.com/news/us-authorities-eager-to-deter-citizens-from-unregistered-crypto-exchanges>. Accessed on 14/02/2021.

¹⁸⁹ The “trader” who uses the fraudulently acquired crypto-currency for “investment purposes” would do so by holding onto the crypto-currency, in the hope that its “value” increases, and then exchange the crypto-currency for fiat currency by selling it to a 3rd party.

¹⁹⁰ Viljoen 2020. <https://www.news24.com/news24/SouthAfrica/News/former-cryptocurrency-agency-chief-declared-bankrupt-as-investors-wait-for-millions-20200706#:~:text=Former%20cryptocurrency%20agency%20chief%20declared%20bankrupt%20as%20investors%20wait%20for%20millions,-06%20Jul&text=Willie%20Breedt%2C%20CEO%20of%20VaultAge,bitcoin%20investors%20out%20of%20millions.&text=Willie%20Breedt%20is%20accused%20of,money%20investors%20had%20paid%20him>. Accessed on 06/07/2020.

¹⁹¹ Xie 2019: 466.

2.5 Conclusion

DCVCs are a type of “money” which operate almost entirely outside the regulation of South African legislation and the bodies that monitor and administrate financial institutions. Due to their design, DCVCs provide a payment settlement system which is faster and cheaper than traditional payment settlement systems. However, where the superior DCVC payment settlement system is unregulated, such system is inherently riskier to its users and susceptible to misuse, as opposed to the traditional payment settlement systems. This is the case unfortunately, as the same highly regarded benefits provided by DCVCs are unscrupulously exploited by criminals and criminal organisations. It is therefore undeniably evident that crypto-currency should not be allowed to operate without being regulated in some sort of manner. However, as mentioned, the risks which DCVCs pose are also associated with the same benefits provided by DCVCs and thus any form of regulation will have some sort of impact on the benefits provided.

CHAPTER 3: REGULATION OF CRYPTO-CURRENCY

3.1 Introduction

It is deemed that the growing interest in crypto assets can be denoted to the success of Bitcoin (BTC), which was created in 2009.¹⁹² As pointed out by Lahman, the creator of BTC was given the alias Satoshi Nakamoto as the true identity of the actual creator is unknown.¹⁹³ At the start of 2010 one Bitcoin cost about \$ 0.0025,¹⁹⁴ roughly R0.02 based on the average exchange rate during that time.¹⁹⁵ Evidentially, Bitcoin had almost no real value. During May 2010 the first transaction to buy a real item using Bitcoins was entered into, where 10 000 Bitcoins were traded for two large pizzas.¹⁹⁶ By 20 November 2015 one Bitcoin was worth \$262.00,¹⁹⁷ thus showing a growth of 10 480 000% from the value in May 2010. By late 2016 the value of one Bitcoin had now reached \$1 000.00 and, just over a year later, by the end of 2017 one Bitcoin cost almost \$20 000.00.¹⁹⁸

Marson observes that it should therefore be no surprise, based on the success of Bitcoin during this period, that other people would try to create their own types of crypto-currency. However, not all of these new crypto-currencies were created bona fide, as many of them were just Ponzi schemes to defraud people of their money.¹⁹⁹ It must be noted that the current value of one Bitcoin is no longer the impressive \$20 000.00, but roughly around \$6 500.00.²⁰⁰ However, this does not mean that the interest in crypto-currency is dying. As pointed out by the SARB's Payment Systems Department, the volatility of the independent currency attracts investors who may seek to use it as a high-risk speculative investment.²⁰¹

¹⁹² Reiff 2020. <https://www.investopedia.com/tech/most-important-cryptocurrencies-other-than-bitcoin/>. Accessed on 31/03/2020.

¹⁹³ Lahman 2018: 18-23.

¹⁹⁴ BitcoinWiki 2020. https://en.bitcoinwiki.org/wiki/Bitcoin_history. Accessed on 31/03/2020.

¹⁹⁵ Exchange Rates 2020. <https://www.exchangerates.org.uk/USD-ZAR-spot-exchange-rates-history-2010.html>. Accessed on 31/03/2020.

¹⁹⁶ Magnuson 2020: 69.

¹⁹⁷ BitcoinWiki 2020. https://en.bitcoinwiki.org/wiki/Bitcoin_history. Accessed on 31/03/2020.

¹⁹⁸ BitcoinWiki 2020. https://en.bitcoinwiki.org/wiki/Bitcoin_history. Accessed on 31/03/2020.

¹⁹⁹ Marson 2020. <https://www.wsj.com/articles/onecoin-took-in-billions-then-its-leader-vanished-11598520601>. Accessed on 31/10/2020.

²⁰⁰ CoinGecko 2020. <https://www.coingecko.com/en>. Accessed on 02/04/2020.

CoinMarketCap 2020. <https://coinmarketcap.com/all/views/all/>. Accessed on 02/04/2020.

CoinLore 2020. https://www.coinlore.com/all_coins. Accessed on 02/04/2020.

²⁰¹ SARB National Payment System Department 2014: 3.

The paragraph above describes how new risks have arisen with this new type of currency such as: the anonymity of the users and creators; the potential for abuse; and the trading risks tied to the volatility of this type of currency. However, the SARB is of the view that the rise in possible risks associated with crypto-currency does not mean that the whole crypto-currency system should be automatically scrapped or outlawed - on the contrary, it highlights the importance of understanding how crypto-currency functions. The understanding of crypto-currency will assist regulators in striking the delicate balance of regulating this currency, without detrimentally compromising the benefits of crypto-currency, through over-regulation. According to the SARB, potential exists for the real "...growth of Bitcoin in its current operational environment".²⁰² Maloumy-Baka and Kingombe remark that the imposition of proper crypto-currency regulation would lead to the removal of barriers for the less privileged, that current fiat currency cannot address, allowing the underprivileged more economic freedom.²⁰³ Unfortunately, not all jurisdictions share the same sentiments for DCVCs. For example, crypto-currency is completely outlawed in Algeria,²⁰⁴ and Bolivia.²⁰⁵

According to the SARB, crypto-currencies cannot be governed by the same legislation which governs *fiat* currency, e-money and internet-based payment systems, as crypto-currency currently does not meet the "legal tender", definition of the SARB Act.²⁰⁶ This legal regulatory void presents risks, such as irrevocability in the payment systems and the enforcement of the principle of finality.²⁰⁷

²⁰² SARB National Payment System Department 2014: 3-4.

²⁰³ Maloumy-Baka and Kingombe 2015: 7-8.

²⁰⁴ The *Finance Act* 2018, passed by the Algerian Parliament, prohibits the purchase, possession, use and sale of DCVCs. Those who violate this prohibition may face possible criminal sanctions. See Stolp *et al.* 2018: 18.

²⁰⁵ Although BTC is specifically mentioned, any dealings in DCVCs not issued or regulated by the Bolivian central bank and government are criminalised. See Lynne 2020. <https://www.mitrade.com/forex/crypto/crypto-market/is-bitcoin-legal#linkTo-article-para5>. Accessed on 12/10/2020.

²⁰⁶ *South African Reserve Bank Act*: sec 17.

²⁰⁷ SARB National Payment System Department 2014: 10.

The "principle of finality" entails five related but distinct concepts in connection with a funds transfer. However, the first concept is the most relevant and that is the point where the originator's obligation to pay is discharged. This is the position where the originator's account is debited with the amount that he would have paid in cash and thus the originator is regarded as having fully performed. The beneficiary's claim would thus be against the bank and not the originator. The payment becomes complete once the bank credits the beneficiary's account with the said amount. The second concept is the point when payment is regarded as complete. The third concept is the point when countermand ceases to be available. The fourth concept is the point when the funds transferred become available to the beneficiary, and the fifth concept is the point beyond which a bank cannot reverse a transfer on its own volition. See Chan 2005: 93-95.

This chapter will discuss the South African regulatory approaches adopted and the proposed regulations pertaining to crypto-currency. These regulations will be examined and compared against the regulatory measures taken in America primarily, as well as other countries, with the purpose of analysing which regulations better address the risks discussed in Chapter 2 while allowing for the greatest realisation of the benefits provided by crypto-currency.

3.2 Build up to regulation in South Africa

In 2014 National Treasury (NT) issued the “*User Alert: Monitoring of virtual currencies*”,²⁰⁸ which was aimed at warning the public of: the risks associated with the use of crypto-currency as a payment or an investment tool; the unregulated nature of crypto-currency; and consequently, the lack of legal protection afforded to users of this currency.²⁰⁹ This was the first communication on the topic of virtual currency from South African regulators.

The SARB’s National Payment System Department, then later in 2014, published the “*Position Paper on Virtual Currencies*”.²¹⁰ The purpose of this publication was to: explain what DCVCs were; further highlight the immediate risks associated with DCVCs; and more importantly to clarify that DCVCs are not legal tender in South Africa.²¹¹

The Intergovernmental Fintech Working Group,²¹² (IFWG) was established during 2016 with the aim of developing common understanding between regulators with regards to financial technology, in order to enable the adoption of proper and responsible regulatory responses.²¹³ During 2018, a group named the Crypto Assets Regulatory Working Group (CAR WG) was formed under the IFWG with the purpose

²⁰⁸ Department of National Treasury User Alert: Monitoring of Virtual Currencies available at http://www.treasury.gov.za/comm_media/press/2014/2014091801%20-%20User%20Alert%20Virtual%20currencies.pdf.

²⁰⁹ National Treasury 2014: 1-3.

²¹⁰ SARB National Payment System Department 2014. Position Paper on Virtual Currencies.

²¹¹ SARB National Payment System Department 2014:1-6.

²¹² The IFWG is made up of members from the SARB, Financial Intelligence Centre, Financial Sector Conduct Authority, National Treasury, and more recently the National Credit Regulator and SARS.

²¹³ Crypto Asset Regulatory Working Group 2020: 3.

of enabling regulators to develop regulatory policy specifically in regards to crypto-currency.²¹⁴

In 2019 the IFWG's CAR WG released its "*Consultation Paper on Policy Proposals for Crypto Assets*",²¹⁵ which once again highlighted the risks and benefits of crypto-currency, but more importantly, it also provided regulatory policy proposals to sync crypto-currency with current financial regulation.²¹⁶

During 2020, the IFWG's CAR WG released a "*Position Paper on Crypto Assets*",²¹⁷ after consideration of the comments received on their 2019 Consultation Paper. This Position Paper provides a definition of crypto assets,²¹⁸ as well as recommendations for the treatment of crypto assets i.e. crypto-currency.²¹⁹

3.3 Financial stability

As discussed under the heading of Financial stability in Chapter 2,²²⁰ financial stability requires both the markets and the major or key financial institutions which operate in those markets to enjoy or exercise, to the best of their ability, shared stability.²²¹ Therefore the SARB takes the stance that the importance of a robust financial system and the effective management of systemic financial risk in order to avoid financial crisis, cannot be emphasised enough.²²² The 2008 GFC demonstrated the catastrophic results which may ensue as a result of a frigid or unmanaged financial system.²²³ Mothokoa points out that financial market risks and vulnerabilities which

²¹⁴ Crypto Asset Regulatory Working Group 2020: 4.

²¹⁵ Intergovernmental Fintech Working Group Crypto Asset Regulatory Working Group 2019. Consultation Paper on Policy Proposals for Crypto Assets.

²¹⁶ Industry participants and stakeholders were provided an opportunity to comment on the policy proposals.

²¹⁷ Intergovernmental Fintech Working Group Crypto Asset Regulatory Working Group 2020. Position Paper on Crypto Assets. Available at http://www.treasury.gov.za/comm_media/press/2020/20200414%20IFWG%20Position%20Paper%20on%20Crypto%20Assets.pdf.

²¹⁸ This papers reference to Crypto assets should be understood as crypto-currency which has been discussed throughout this paper.

²¹⁹ Crypto Asset Regulatory Working Group 2020: 6 and 24-31.

²²⁰ See paragraph 2.4.1 of Chapter 2.

²²¹ SARB 2020. <https://www.resbank.co.za/Financial%20Stability/Pages/FinancialStability-Home.aspx>. Accessed on 27/07/2020.

²²² SARB 2020. <https://www.resbank.co.za/Financial%20Stability/Pages/FinancialStability-Home.aspx>. Accessed on 27/07/2020.

²²³ Such as the erosion of wealth, mass job losses, and/or weaker economic growth to list a few examples.

may harm financial stability are tryingly shielded through regulating the financial sector. The objective which financial regulation attempts to achieve, is to promote the consideration of systemic risk by institutions through the use of incentives.²²⁴

The SARB indicates that systemic financial crises are less likely events where proper risk management is conducted. Banking authorities should thus exercise appropriate market surveillance, supervision and systemic risk management. In addition to this, the SARB states that market participants should make use of appropriate risk management measures.²²⁵

According to the SARB's National Payment System Department, the link of smooth performance of payment systems between the real economy and DCVCs, which DCVCs threaten to harm or destroy, is consequentially where DCVCs also pose a threat to financial stability.²²⁶ The fact that the operation of DCVCs is largely unregulated creates a playground for new potential risks to arise, while at the same time threatening the possible amplification of existing risks.

The SARB consequently indicates that legislation which imposes minimum standards of compliance and addresses the various factors mentioned under Chapter 2,²²⁷ is therefore necessary in order to “assist with the creation of a robust financial system that has the ability to predict, prevent, and endure or resist domestic and international market conditions and shocks, essentially resulting in protection against systemic risk and financial instability”.²²⁸

A) South Africa

The “Twin Peaks” model of financial regulation was introduced into South Africa during 2018 through the Financial Sector Regulation Act,²²⁹ (FSRA).²³⁰ The FSRA places the duty of maintaining financial Stability on the SARB.²³¹ The FSRA further establishes,

²²⁴ Mothokoa 2017: 30.

²²⁵ SARB 2020. <https://www.resbank.co.za/Financial%20Stability/Pages/FinancialStability-Home.aspx>. Accessed on 27/07/2020.

²²⁶ SARB National Payment System Department 2014: 12. See also European Central Bank 2012: 12, 37 and 38.

²²⁷ See paragraph 2.4.1 of Chapter 2.

²²⁸ SARB 2020. <https://www.resbank.co.za/Financial%20Stability/Pages/FinancialStability-Home.aspx>. Accessed 27/07/2020.

²²⁹ *Financial Sector Regulation Act*.

²³⁰ Godwin *et al* 2015: 665 and 670.

²³¹ *Financial Sector Regulation Act*: sec 11.

under the SARB's supervision, two regulatory bodies that comprise the so-called twin regulators, namely:

- 1) the Prudential Authority,²³² (PA), which is the body responsible for protecting, maintaining, enhancing financial stability and regulating prudential risk; and
- 2) the Financial Sector Conduct Authority,²³³ (FSCA), which is responsible for regulating market conduct risk, consumer protection, as well as protecting and promoting public confidence in the South African financial system.

Notably the SARB, in its 2014 Position paper, announced that it was not of the opinion that DCVCs posed a significant risk to financial stability,²³⁴ which was also reiterated by the CAR WG in their 2020 Position Paper.²³⁵ The SARB in their 2014 paper did, however, also state that it was, and would continue to "...monitor and analyse market and other financial and economic factors in order to identify and mitigate any emerging systemic risks".²³⁶ As correctly pointed out by Mothokoa, the anonymous nature of crypto-currency and decentralised parties coupled with the lack of regulation would make such monitoring extremely difficult.²³⁷

As is the complex and multi-faceted nature of financial stability, the regulatory responses and proposals identified below in this chapter (under the headings of money laundering and terrorism financing, tax evasion, and consumer risk), while addressing the identified risks and providing protection thereto, simultaneously also provide for the promotion and the maintenance of financial stability. The same would be true for any regulatory steps taken by another country.

B) United States of America

Taking that the regulatory steps adopted by another country will inevitably have some sort of an effect on that country's financial stability, only the US authorities responsible

²³² *Financial Sector Regulation Act*: sec 32.

²³³ *Financial Sector Regulation Act*: sec 56.

²³⁴ SARB National Payment System Department 2014: 12.

²³⁵ Crypto Asset Regulatory Working Group 2019: 18.

²³⁶ SARB National Payment System Department 2014: 12.

²³⁷ Mothokoa 2017: 30-31.

for the financial system's stability will be discussed, as US regulations are the primary source of comparison for the purpose of this mini thesis.

The US seems to have maintained a type of silo approach in terms of its financial regulators, with different Federal Financial Regulators existing in different financial areas. However, these regulators are all brought under an umbrella authority for a macroprudential oversight of the financial system, and can thus be equated to the South African "Twin Peaks" model, to some extent.

As a response to the 2008 GFC, the *Dodd-Frank Wall Street Reform and Consumer Protection Act*,²³⁸ was created. The purpose of the *Act* was to improve the financial systems transparency and accountability, in order to promote financial stability. Further, the *Act* also sought to protect American taxpayers by ending bailouts and abusive financial practices.²³⁹ The Dodd- Frank Act established many of the below regulators and expanded on those regulators which were already in existence.

The following regulators, which can be grouped under depository regulators,²⁴⁰ include: The Federal Reserve;²⁴¹ the Federal Deposit Insurance Corporation (FDIC) and;²⁴² the Office of the Comptroller of the Currency (OCC).²⁴³

In terms of the area for securities markets, the following regulators are identified: the Securities and Exchange Commission,²⁴⁴ (SEC) and the Commodity Futures Trading Commission,²⁴⁵ (CFTC).²⁴⁶

²³⁸ *Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010.*

²³⁹ *Dodd-Frank Act: preamble.*

²⁴⁰ Labonte 2020: 8, 14 and 15.

²⁴¹ The Federal Reserve is the primary regulator of the Federal Reserve System state member banks among others, as well systemically significant designated payment system firms. Additionally, the Federal Reserve also acts as the lender of last resort for depositors. See *Dodd-Frank Act* sec 1105.

²⁴² The FDIC is the primary regulator of the Federal Reserve System non-member state banks. Additionally, they also regulate depository institutions which are federally insured and act as a deposit insurance for banks. See *Dodd-Frank Act* sec 335. The FDIC was originally created by the *Glass-Steagall Act of 1933*, sec 12B.

²⁴³ US Code, Title 12, Chapter 1, Section 1(a) establishes the OCC. The OCC is the primary regulator of foreign banks in the USA which do not maintain their own capital base, as well as American national banks.

²⁴⁴ The SEC is responsible for regulating, among others, securities exchanges, clearing and settlement agencies, as well as investment funds, advisers and companies, and nationally recognised rating agencies.

²⁴⁵ The CFTC regulates among others, futures exchanges, commodity trading advisors, derivatives clearing organizations, and designated markets swap dealers, repositories and execution facilities.

²⁴⁶ Labonte 2020: 7, 8, and 16-20.

The abovementioned regulators are all represented by their own heads on the Financial Stability Oversight Council (FSOC).²⁴⁷ In addition to those already mentioned represented regulators, there are also other regulators represented by their heads such as the National Credit Union Administration, the Consumer Financial Protection Bureau (CFPB),²⁴⁸ and the director of the Office of Financial Research (OFR).²⁴⁹ The OFR was created to provide data collection and analytical backing to the FSOC. The FSOC is thus the umbrella authority which pools in the different regulators and is placed with the burden of identifying and addressing systemic and financial stability risks.²⁵⁰ However, critics have suggested that the FSOC is just a formal co-ordination and communication forum, due to the FSOC's lack of resources to implement policies which mirror the OFR's research.²⁵¹

3.4 Money laundering and terrorism financing

The activity of making proceeds or money appear to be legally gained when in fact the proceeds or money that is gained was as a result of illegal activities is known as "money laundering" (ML).²⁵² Legislation tries to hinder and prevent such activities through the use of Anti-Money Laundering (AML) laws.

Where illegitimately or even legitimately sourced funds are used to support terrorist activities, such support or funding is known as Terrorist Financing (TF). Similarly, to AML laws, there also exists legislation aimed at Counter Terrorism Funding (CTF). Halliday, Levi and Reuter suggest that the CTF is also covered by the AML regime.²⁵³

Singapore's Monetary Authority,²⁵⁴ echoed the sentiments of various global and national financial regulators, in their comment describing the anonymous nature of crypto-currency and the technology on which it functions, which easily allows for large transaction to quickly take place, as vulnerability to the global effort against ML/TF.²⁵⁵

²⁴⁷ The *Dodd-Frank Act*: sec 111(a) established the FSOC.

²⁴⁸ The *Dodd-Frank Act*: sec 1011(a) established the CFPB.

²⁴⁹ The *Dodd-Frank Act*: sec 152(a) established the OFR.

²⁵⁰ Labonte 2020: 22-23.

²⁵¹ Allen 2015: 1115.

²⁵² Ajello 2015: 435.

²⁵³ Halliday, Levi and Reuter. 2019: 17.

²⁵⁴ The Monetary Authority of Singapore (MAS) is comprised of Singapore's Central Bank and Financial Regulators.

²⁵⁵ Choudhury 2017. <http://www.cnbc.com/2017/08/04/icos-may-be-seen-as-securities-by-u-s-and-singapore-regulators.html>. Accessed on 10/07/2020.

The “New Technologies” chapter otherwise known as “Recommendation 15” of the FATF,²⁵⁶ was amended by the FATF to deal with and regulate Virtual Assets (i.e. Crypto-currency). The amendment to “Recommendation 15” requires jurisdictions to regulate crypto-currency and Crypto Asset Service Providers (CASPs) in order to achieve the AML/CTF mission of the FATF.²⁵⁷ It is further mentioned under “Recommendation 15” that CASPs should be registered or licensed and subject to effective supervision or monitoring systems.²⁵⁸ The FATF has also published a draft guideline,²⁵⁹ requiring and explaining how the Risk-Based Approach (RBA) alongside the preventative measures in Recommendations 10 to 21 must be adopted in terms of crypto-currency and CASPs.²⁶⁰

As South Africa is a member nation of the FATF, it is required to meet the recommended requirements of the FATF, or face potential sanctions from other FATF member nations.²⁶¹

A) South Africa

The central tool used to regulate and protect the South African financial system’s integrity has been the Financial Intelligence Centre Act,²⁶² hereafter referred to as the FIC Act. The FIC Act primary objectives, mentioned in Section 3, are to identify the proceeds of unlawful activities and to combat terrorist financing and money laundering activities.²⁶³ The FIC Act is also be the primary legislative framework which aligns South African legislation with the FATF AML/CTF international standards.²⁶⁴

According to the definition in the FIC Act “money laundering” or a “money laundering activity” is “an activity which has or is likely to have the effect of concealing or

²⁵⁶ FATF 2012-2019: 15. par 15-New Technologies.

²⁵⁷ FATF 2012-2019: 15. par 15-New Technologies.

²⁵⁸ FATF 2012-2019: 15. par 15-New Technologies.

²⁵⁹ Financial Action Task Force (2019), Guidance for a Risk-Based Approach to Virtual Assets and Virtual Asset Service Providers, FATF, Paris, Available at www.fatf-gafi.org/publications/fatfrecommendations/documents/Guidance-RBA-virtual-assets.html.

²⁶⁰ FATF 2019: 24-32.

²⁶¹ FATF 2012-2019: 24. par 35-Sanctions.

²⁶² *Financial Intelligence Centre Act* 31/ 2001.

²⁶³ *Financial Intelligence Centre Act*: sec 3.

²⁶⁴ Modisagae 2013: 100.

disguising the nature, source, location, disposition or movement of the proceeds of unlawful activities or any interest which anyone has in such proceeds...”.²⁶⁵

The FIC Act places an obligation on any person “who manages, or is in charge of, or who owns; or is employed by a business, and suspects, knows or should have reasonably know that:

- (a) the business is about to or has received or the fruits of unlawful activities related to terrorist financing
- (b) a transaction or series of transitions which the business is a party to: that have no apparent lawful purpose; or are for the purpose of any tax, duty, or levy evasion; or is for the purpose of avoiding a reporting duty in terms of the FIC Act; or more importantly is related to a terrorist financing activity
- (c) the business is about to be used or has been used for money-laundering purposes, or the financing of terrorism”, to report such to the FIC.²⁶⁶

Further, in addition to the abovementioned, the FIC Act also requires the abovementioned persons as well as accountable institutions and reporting institutions to advise the Financial Intelligence Centre (FIC) upon request of the following: whether a specific person is or was a client of theirs; whether a specific person acted or acts on behalf of their client; or the type of business relationship between the them and themselves and the client.²⁶⁷ Schedule 1 of the FIC Act contains a list of accountable institutions. The list makes reference to estate agents, banks, dealers of foreign exchange and travellers’ cheques, as well as money remitters.²⁶⁸ Reporting institutions are listed in Schedule 3 of the FIC Act and include people who deal in Kruger Rands and motor vehicles.²⁶⁹ Although the FIC has not enforced any of the abovementioned provisions against CASPs, Itzikowitz remarks that such provisions could arguably be applied to CASP company’s such as Luno^{270,271}

²⁶⁵ *Financial Intelligence Centre Act*. sec 1.

²⁶⁶ *Financial Intelligence Centre Act*. sec 29.

²⁶⁷ *Financial Intelligence Centre Act*. sec 27.

²⁶⁸ *Financial Intelligence Centre Act*. schedule 1.

²⁶⁹ *Financial Intelligence Centre Act*. schedule 3.

²⁷⁰ Luno is a global cryptocurrency exchange (which allows users to buy and sell various crypto-currencies including Bitcoin, LiteCoin and Ethereum) as well as a wallet provider (where the aforementioned crypto-currencies as well as fiat currency can be stored). Luno was founded in 2013. It has offices all over the world including a South African headquarters in Johannesburg. The

²⁷¹ Itzikowitz *et al.* 2019: 434.

Both the IFWG's Consultation Paper released in 2019,²⁷² and their Position Paper released in 2020,²⁷³ suggested certain changes to be made to the current FIC Act, in order to bring crypto-currency and CASP's under regulation. Government Gazette No. 43447,²⁷⁴ (GG 43447) published by the Minister of Finance, in terms of the FIC Act on the 19th of June 2020, contains the latest proposed (not yet enacted) amendments to the FIC Act. The proposed amendments of GG 43447 would bring the current FIC Act in-line with "Recommendation 15" and more importantly with the FATF International Standards.

GG 43447 proposes amendments such as an expansion of the list of accountable institutions, which are obligated to exercise Customer Due Diligence,²⁷⁵ (CDD) and Risk Management Compliance,²⁷⁶ (RMC). Thus, requiring accountable institutions to comply with AML/CTF requirements of the FIC Act. The proposal suggests that the expanded list should include CASPs,²⁷⁷ with CASP's being any businesses that:

- (a) exchange *fiat* currency for crypto-currency or vice versa;
- (b) perform transactions in which crypto-currencies are moved from one account or address to another;
- (c) provide administration or safekeeping facilities for crypto-currency; or
- (d) that provide instruments which enable users to control crypto-currency.²⁷⁸

²⁷² Intergovernmental Fintech Working Group Crypto Asset Regulatory Working Group 2019. Consultation Paper on Policy Proposals for Crypto Assets. Available at http://www.treasury.gov.za/comm_media/press/2019/CAR%20WG%20Consultation%20paper%20on%20crypto%20assets_final.pdf.

²⁷³ Intergovernmental Fintech Working Group Crypto Asset Regulatory Working Group 2020. Position Paper on Crypto Assets. Available at http://www.treasury.gov.za/comm_media/press/2020/20200414%20IFWG%20Position%20Paper%20on%20Crypto%20Assets.pdf.

²⁷⁴ *Government Gazette* 43447.

²⁷⁵ Customer Due Diligence is the process in which institutions determine the identity of the client in order to confirm that they are who they claim to be. This process normally involves, among other things, obtaining the clients name, ID copy (which is compared to the original), proof of residence and photos of the client.

²⁷⁶ Risk Management Compliance is the exercise of identifying potential risks and taking the necessary steps in order to mitigate the risk. In the case of crypto exchanges holding bank accounts with a certain bank, the bank must take the steps it deems necessary, such as closing the exchanges account, if the bank is unable to reasonably determine that money in the account is not illicitly obtained and/or not used for illegal activities.

²⁷⁷ Govender and Mthembu 2020. <https://www.bizcommunity.com/Article/196/717/206072.html>. Accessed 29/07/2020.

²⁷⁸ *Government Gazette* 43447. 684.

In terms of the FIC Act, accountable institutions are not allowed conduct business with any anonymous clients. The inclusion of crypto-currency exchanges would therefore require DCVC exchanges to know the true identity of their clients in order to establish a business relationship with them.²⁷⁹ This would thus mean the removal of the anonymity benefit provided by DCVCs in order to achieve the AML/CTF goal.

B) United States of America

The Bank Secrecy Act of 1970,²⁸⁰ (BSA) is the primary legislation aimed at combatting and deterring money laundering. In order to deter, hinder, and discover terrorist financing activities, the BSA was amended to include provisions of the USA Patriot Act.²⁸¹ The provisions granted enforcement agencies additional investigatory and surveillance powers.²⁸²

The BSA was not created to prevent or hinder money laundering, it was initially enacted for the purpose of documenting transaction history, particularly in foreign countries with stringent privacy laws, in effect creating a paper-trail. Money laundering was only criminalised in 1986 when the Money Laundering Control Act,²⁸³ was passed.²⁸⁴ As observed by Mariani, the paper-trail allows for unusual transactions and suspicious activity contrary to sound business practice to be detected, which happens to be the most effective way of discovering a ML operation.²⁸⁵ The paper-trail also acts as a weapon which can be used against money launderers in their prosecution.²⁸⁶

In a similar fashion to the South African FIC Act, the BSA too requires that financial institutions: maintain records of certain types of transactions;²⁸⁷ report suspicious or certain types of transactions;²⁸⁸ develop their own assessments or methods which best

²⁷⁹ *Financial Intelligence Centre Act: Part 1, sec 20A and 21.*

²⁸⁰ *Banks Secrecy Act 1970.*

²⁸¹ Yu 2019: 23. See also Office of the Comptroller of Currency 2020.

<https://www.occ.treas.gov/topics/supervision-and-examination/bsa/bsa-related-regulations/index-bsa-and-related-regulations.html>. Accessed on 30/07/2020.

²⁸² The USA Patriot Act was passed as a result of the September 11 terror attacks on the Twin Towers.

²⁸³ *Money Laundering Control Act 1986.* See 18 U.S.C 1956-57 1988.

²⁸⁴ Howard 2017: 49.

²⁸⁵ Mariani 1999: 30.

²⁸⁶ Mukwehwa 2019: 31.

²⁸⁷ *Financial Intelligence Centre Act: Part 2.*

²⁸⁸ *Financial Intelligence Centre Act: Part 3.*

identify customers which may potentially engage in money laundering,²⁸⁹ terrorism financing and other illegal activities;²⁹⁰ and have their anti-money laundering efforts evaluated under compliance reviews.²⁹¹

The BSA consists of various titles or parts. Financial Recordkeeping is Title I of the BSA in terms of which insured financial institutions are required to maintain certain records as determined by the Secretary of the Department of the Treasury.²⁹² This title is very similar in nature to the record keeping requirements of the South African FIC Act,²⁹³ Part 2.

Reports of Currency and Foreign Transactions is Title II of the BSA, which provide regulations for financial institutions to report transactions in excess of a prescribed amount,²⁹⁴ in, out of, or into the USA.²⁹⁵ This title is very similar in nature to the reporting requirements of the South African FIC Act,²⁹⁶ Part 3.

The BSA's anti-money laundering regulatory framework was supplemented by the enactment of Title III of the Patriot Act,²⁹⁷ (hereafter referred to as the Patriot Act). The "Know Your Customer" (KYC) or "Customer Due Diligence" (CDD) requirement was introduced by the Patriot Act, among the additional regulatory requirements for financial institutions.²⁹⁸ The KYC requirement is the equivalent of the "Customer Due Diligence" required in Part 1 of the South African FIC Act.²⁹⁹ Both the respective US and South African Acts require compliance with KYC or CDD. As explained by Tu and Meredith, the KYC or CDD requirements place a duty on certain identified accountable, or financial institutions. The duty requires that the aforementioned institutions identify their customers by gathering and verifying, customer information. Furthermore, these institutions must monitor transactions made by their customers,

²⁸⁹ *Financial Intelligence Centre Act* 31/ 2001.

²⁹⁰ Tu and Meredith 2015: 322.

²⁹¹ *Financial Intelligence Centre Act* 31/ 2001.

²⁹² DSC Risk Management Manual of Examination Policies 8.1-1 Bank Secrecy Act (12-04) Federal Deposit Insurance Corporation <https://www.fdic.gov/regulations/safety/manual/section8-1.pdf> Accessed on 30/07/2020.

²⁹³ *Financial Intelligence Centre Act*. Part 2.

²⁹⁴ The prescribed amount is currently \$10,000 (Ten thousand Dollars).

²⁹⁵ DSC Risk Management Manual of Examination Policies 8.1-1 Bank Secrecy Act (12-04) Federal Deposit Insurance Corporation. <https://www.fdic.gov/regulations/safety/manual/section8-1.pdf> Accessed on 30/07/2020.

²⁹⁶ *Financial Intelligence Centre Act*. Part 3.

²⁹⁷ *International Money Laundering Abatement and Financial Anti-Terrorist Financing Act* 2001.

²⁹⁸ *US Patriot Act*: Title III, sub-title B.

²⁹⁹ *Financial Intelligence Centre Act*. Part 1.

with the aim of detecting and subsequently reporting any activity which may be illegal.³⁰⁰

Carlisle points out that the anonymous nature of crypto-currency undermine the CDD requirements aimed at the global combat against money laundering or terrorist financing, with the CDD requirements being further wounded by the numerous anonymous accounts,³⁰¹ which can effortlessly be created.³⁰²

The USA has and continues to attempt combating money laundering or terrorist financing through the use of crypto-currencies. The Financial Crime Enforcement Network (FinCEN), a bureau of the U.S. Treasury Department, is tasked with the duty of combating money laundering or terrorist financing in addition to protecting the financial system against illegal abuse.³⁰³ FinCEN, is also tasked with the duty of collecting financial intelligence and analysing the collected intelligence.³⁰⁴ FinCEN performs, and in essence is, the equivalent, of the South African FIC.³⁰⁵ In order for FinCEN to accomplish their duties, they have also been granted powers to create regulations, which money services businesses³⁰⁶ must comply with.³⁰⁷

The FinCEN guidance issued in 2013,³⁰⁸ identified three participants in the crypto-currency realm. The first participant identified were 'users', being people who acquire crypto-currency in order to buy goods and services. The second participant identified were 'exchangers', being a natural or juristic person who are in the business of exchanging crypto-currency for other DCVC's or *fiat* currency. The third participant identified were 'administrators', who perform the business of issuing crypto-currency and who have the power to redeem that crypto-currency.³⁰⁹

³⁰⁰ Tu and Meredith 2015: 326.

³⁰¹ Pseudonyms are fake names which are used to protect/ hide the users true identity.

³⁰² Carlisle 2017: 9-10.

³⁰³ "The Director of FinCEN is appointed by the Secretary of the Treasury and reports to the Treasury Under Secretary for Terrorism and Financial Intelligence". Financial Crimes Enforcement Network 2020. <https://www.fincen.gov/what-we-do>. Accessed on 02/08/2020.

³⁰⁴ Financial Crimes Enforcement Network 2020. <https://www.fincen.gov/what-we-do>. Accessed on 02/08/2020.

³⁰⁵ *Financial Intelligence Centre Act*: sec 4.

³⁰⁶ Money services businesses include entities engaged in money transmission as well as financial institutions.

³⁰⁷ United States Government Accountability Office 2014: 13.

³⁰⁸ Department of the Treasury, Financial Crimes Enforcement Network 2013: Application of FinCEN's regulations to persons administering, exchanging, or using virtual currencies.

³⁰⁹ Financial Crimes Enforcement Network 2013: 2.

In terms of this 2013 guidance, the BSA and AML/CTF regulations applied to all three participants being: users; exchangers; and administrators. However, in terms of this guidance only the two latter participants were identified as money services businesses. Users on the other hand were not identified as money services businesses and, although being subject to the BSA, were therefore not required to comply with the registration; recordkeeping; and reporting requirements of the BSA that exchangers and administrators were subject to.³¹⁰

Although the 2013 guidance goes on to talk about decentralised and centralised virtual currencies, the treatment of exchangers is the same. Exchangers and administrators, although identified as money services businesses, can more specifically be identified as money transmitters.

According to FINCEN “administrators” are money transmitters “...to the extent that it allows transfers of value between persons or from one location to another”.³¹¹ “Exchangers” are also money transmitters in so far as they accept and transfer the convertible virtual currency to another person.³¹²

As discussed in Chapter two DCVCs have no central administrators and as such the creators of decentralised convertible virtual currencies are also money transmitters in so far as they create and exchange the currency for fiat currency or an equivalent of such. The important principle with regards to decentralised convertible virtual currencies is that the unit created has been transferred from one location to another. Thus, a creator of a DCVC who only uses the currency he created to purchase real or virtual goods or services is not a money transmitter or a money services business.³¹³

C) Other countries

Canada

Under Bill C31, companies dealing in DCVCs in Canada as well as companies outside of Canada, whose service affects entities or person in Canada, must register as money services businesses with the Financial Transactions and Reports Analysis Centre of

³¹⁰ Financial Crimes Enforcement Network 2013: 1.

³¹¹ Financial Crimes Enforcement Network 2013: 4.

³¹² Financial Crimes Enforcement Network 2013: 4 and 5.

³¹³ Financial Crimes Enforcement Network 2013: 5.

Canada (FinTrac)³¹⁴, in order to operate. To be registered and in order to maintain registration, companies are required to comply with record keeping and reporting requirements.³¹⁵ This would therefore be a similar approach to that proposed by the South African CAR WG.³¹⁶ However, because the amendments have been classified as “Amendments Not in Force” these obligations have not seen fruition as of yet, and crypto dealing companies are not as yet regulated as money services businesses.

Estonia (Member of the European Union)

Estonian regulators have attempted to curtail the money laundering risks associated with crypto-currency through stricter regulation, by only issuing licenses to companies that fall under Estonian jurisdiction, and as such are subject to the forcible requirements and supervision of the Estonian regulators. Thus, accountable institutions in Estonia, which require a permit in order to operate, will need to have an Estonian branch of the firm or move their head office into Estonia.³¹⁷ In addition to the aforementioned, permits will cost \$3 715.00,³¹⁸ and will only be issued after three months.³¹⁹

Recently in Estonia, the Estonian Financial Intelligence Unit (FIU), shut down companies that, six months after obtaining a license, had not yet started operations within the country. There remain around 900 digital asset companies in Estonia, however, Gogo remarks that over 50% of them may be shut down in similar fashion by the FIU or have their licenses removed “as they have no operations in Estonia and their managers are outside the country”.³²⁰

³¹⁴ FinTrac is tasked with the duty of analysing financial transaction in order to prevent money laundering and terrorist financing.

³¹⁵ Morton 2020: 135.

³¹⁶ Refer to Chapter 3, paragraph 3.4, South Africa. See also *Financial Intelligence Centre Act: Part 2* read together with Intergovernmental Fintech Working Group Crypto Asset Regulatory Working Group 2020: 24-27.

³¹⁷ Finantsinspektsioon 2019: <https://fi.ee/en/banking-and-credit/applying-activity-licences/operating-licence-creditor>.

³¹⁸ Previously a permit only cost \$353.85.

³¹⁹ Permits were initially granted after 30 days.

³²⁰ Gogo 2020. <https://news.bitcoin.com/estonia-revokes-500-crypto-firms-licenses-after-220-billion-money-laundering-scandal/>. Accessed on 20/06/2020.

3.5 Tax evasion

As mentioned in Chapter 2, while tax avoidance is legal in South Africa, tax evasion is not and is constituted as fraud.³²¹ Many countries apply a similar approach in that tax evasion is criminalised. However, as observed by Everette the anonymous nature of crypto-currencies opens the door to potential tax evaders, as tax authorities struggle to identify crypto-currency users who enter into taxable transactions.³²²

During the period of 2013 to 2015 only 800 to 900 tax returns which declared gains on crypto-currencies had been reported,³²³ to the American Internal Revenue Service (IRS).³²⁴ Perkins indicates that the suspiciously low number of tax returns that were submitted prompted the IRS to initiate legal proceedings against Coinbase,³²⁵ to compel the exchange to turn over customer information. The exchanges' customer information was handed over during November 2017, and of the 13 000 customers, 10 000 were sent letters, during July 2019, stating that a potential failure to comply with reporting requirements had potentially occurred.³²⁶

A) South Africa

In South Africa, the Income Tax Act No. 58 of 1962,³²⁷ declares that both natural and juristic persons are liable to pay income tax on received or accrued income, which is not tax exempt.³²⁸ This is done by submitting annual income tax returns to the South African Revenue Service (SARS).³²⁹ Negligent and/or intentional misstatements may result in the said person being found guilty of tax evasion.³³⁰

The SARS was established by the South African Revenue Service Act No. 34 of 1997,³³¹ (SARS Act) and is the institution brandished with the objective of efficient and

³²¹ de Koker and Badenhorst 2020: sec 20.3.

³²² Everette 2017: 18-19. See also Perkins 2020: 18.

³²³ At the time, exchanges of DCVC's were not required to report transactions to the IRS and as such they generally did not.

³²⁴ *United States v Coinbase, Inc., et al.*, 2017 United States District Court, North District of California 17-cv-01431-JSC.

³²⁵ Coinbase was the largest crypto-currency exchange at the time.

³²⁶ Perkins 2020: 18. See also Rooney 2019. <https://www.cnbc.com/2019/07/26/irs-is-warning-thousands-of-cryptocurrency-holders-to-pay-their-taxes.html>. Accessed on 09/08/2020.

³²⁷ *Income Tax Act 58/1962*.

³²⁸ *Income Tax Act*: sec 5(1)(c)-(d).

³²⁹ *Income Tax Act*: sec 66(13).

³³⁰ de Koker and Badenhorst 2020: sec 20.3.

³³¹ *South African Revenue Services Act 34/1997*: sec 2.

effective national tax collection in South Africa.³³² On 6 April 2018, SARS released a media statement in which they stated that they would treat crypto-currencies under the normal income tax rules. SARS further placed the burden on taxpayers which required all crypto-currency gains and losses of users to be declared as part of their taxable income for the relevant financial year failing which they would face possible penalties and interest.³³³

SARS took the approach of crypto-currency being an asset of intangible nature, which can be valued to determine whether an amount was received or accrued. This therefore meant that, in terms of the ITA, crypto-currencies fell within the definition of “gross income”.³³⁴ As a result, income received from crypto currency transactions could be taxed under gross income or alternatively such gains could be regarded as capital in nature. However, SARS left it up to taxpayers to decide whether a receipt or an accrual is capital or revenue in nature, stating that existing jurisprudence must be applied in order to make such determination. Therefore, according to SARS, taxpayers could also claim expenses which were “...associated with cryptocurrency accruals or receipts, provided such expenditure is incurred in the production of the taxpayer’s income and for purposes of trade”.³³⁵ In support of this, Section 20A of the ITA was amended by the Taxation Laws Amendment Act No. 23 of 2018.³³⁶ The ring-fencing of assessed losses provisions, with effect from the 1st of April 2018, includes the acquisition or disposal of any crypto-currency.³³⁷

Further, SARS identified three types of activities where the gains or losses potentially give rise to tax obligations, namely: mining; investing; and barter transactions.³³⁸

³³² *South African Revenue Services*: sec 3(a). See also SARS 2019.

<https://www.sars.gov.za/About/Pages/default.aspx>. Accessed 19/08/2020.

³³³ SARS 2018. <https://www.sars.gov.za/Media/MediaReleases/Pages/6-April-2018---SARS-stance-on-the-tax-treatment-of-cryptocurrencies-.aspx>. Accessed on 19/08/2020.

³³⁴ *Income Tax Act*: sec 1. Definition- “Gross income... means:

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

³³⁵ SARS 2018. <https://www.sars.gov.za/Media/MediaReleases/Pages/6-April-2018---SARS-stance-on-the-tax-treatment-of-cryptocurrencies-.aspx>. Accessed on 19/08/2020.

³³⁶ *Taxation Laws Amendment Act 23/2018*.

³³⁷ *Taxation Laws Amendment Act*: sec 37.

Taxation Laws Amendment Act: sec 1(c) also effected changes to the definition of “financial instrument” by expanding this definition it to include crypto-currency.

³³⁸ With regard to barter transactions the normal barter transaction rules regarding tax are applicable.

However, in terms of the Value-Added Tax Act No. 89 of 1991,³³⁹ (VAT Act), no Value-Added Tax,³⁴⁰ (VAT) is due and payable,³⁴¹ for the purchasing of crypto-currency with fiat currency, as crypto-currency does not meet the definition of “goods” or “services” in terms of the Act.³⁴² SARS therefore does not require that buyers and suppliers of crypto-currency register as VAT vendors. However, where crypto-currency is used as a medium of exchange for the purchase of goods or services, such companies accepting the crypto-currency will be required to register as VAT vendors.³⁴³

According to the VAT Act, an entity is a “designated entity” and must register as VAT vendor, in so far as it supplies goods and services in the normal course of business.³⁴⁴ The closest that DCVCs come to being “goods”, for the purposes of the VAT Act, is the real right which vest in the crypto-currency. However, the definition of “goods” requires that the real right has to vest in a tangible moveable object,³⁴⁵ which crypto-currency, even in the cold storage form, is not.³⁴⁶ Thus, the definition of “goods” is not met. Entities in the business of: issuing; buying; collecting; acquiring; selling; or transferring ownership of crypto-currency have instead been designated as “financial services”.³⁴⁷ However, in terms of the VAT Act, “financial services” dealing in DCVCs are only tax exempt in so far as there is no commission, fee or similar charge in respect

³³⁹ *Value-Added Tax Act* 89/1991.

³⁴⁰ VAT is a type of indirect tax levied on citizens and acquired through the purchase of goods and/or services. In South Africa the VAT rate is 15% on all services and items which are not zero rated or VAT exempt.

³⁴¹ *Value-Added Tax Act*: sec 7(1)(a).

VAT shall be levied “...on the supply by any vendor of goods or services supplied by him... in the course or furtherance of any enterprise carried on by him”.

³⁴² *Value-Added Tax Act*: sec 1. Definition-

“Goods means corporeal movable things, fixed property, any real right in any such thing or fixed property, and Electricity...”.

“Services means anything done or to be done, including the granting, assignment, cession or surrender of any right or the making available of any facility or advantage, but excluding a supply of goods, money or any stamp, form or card...” which has a monetary value assigned to it.

³⁴³ Schoeman 2019. <https://www.sashares.co.za/bitcoin-trading/#gs.e6wnop>. Accessed on 08/08/2020. See also *Value-Added Tax Act*: sec 2(1)(o) which identifies the suppliers of crypto-currency as financial services.

³⁴⁴ *Value-Added Tax Act*: sec 1. Definition- “Designated entity”.

³⁴⁵ *Value-Added Tax Act*: sec 1. Definition- “Goods”.

³⁴⁶ Even though the crypto-currency is stored offline on a USB or similar device, you can never actually acquire the DCVC out of the USB as it is purely information technology, with no physical coins backing the crypto-currency.

³⁴⁷ *Value-Added Tax Act*: sec 2(1)(o). The inclusion of paragraph (o) under section 2(1) is relatively new, only coming into effect on the 1st of April 2020 under the Taxation Laws Amendment Act 23/2018.

of the “issuing; buying; collecting; acquiring; selling; or transferring ownership” of crypto-currency.³⁴⁸

SARS indicates that the reason for SARS treating crypto-currency as “assets” and not “currency” was due to the fact that DCVC’s did not, and for the foreseeable future will not, be South African currency which is legal tender. Further, DCVCs are not widely accepted or used as a medium of exchange or payment in South Africa.³⁴⁹

B) United States of America

The Internal Revenue Service (IRS) is the tax regulator in America and can be viewed as the American equivalent of SARS. Due to American tax laws, (which require,³⁵⁰ regardless of the source, that all income be declared on tax returns) the rise of crypto-currencies created a scene ripe for various tax non-compliance risks as a result of the following: a lack of knowledge among holders of crypto-currency in terms of tax requirements; difficulty in third party reporting; uncertainty with regards to the type of income and how the tax base should be calculated and; tax evasion.³⁵¹

During 2014, the IRS issued a guidance,³⁵² declaring that for the purpose of tax, crypto-currencies must be treated as property.³⁵³ The 2014 guidance was supplemented in 2019 by another guidance,³⁵⁴ which re-iterated, confirmed and clarified the 2014 guidance.³⁵⁵ The 2014 guidance also made a clear statement that although crypto-currencies may function as currency, they must not be treated as currency for tax purposes but rather as property,³⁵⁶ such as shares or gold. Users were therefore legally required to pay taxes on all gains realized whenever they disposed

³⁴⁸ *Value-Added Tax Act*: sec 2(1)(o). See also de Koker and Badenhorst 2020: sec 6.13.

³⁴⁹ SARS 2018. <https://www.sars.gov.za/Media/MediaReleases/Pages/6-April-2018---SARS-stance-on-the-tax-treatment-of-cryptocurrencies-.aspx>. Accessed on 19/08/2020.

³⁵⁰ USC sec 61(a)(3) “except as otherwise provided by law, gross income means all income from whatever source derived, including gains from dealings in property”. See also *Commissioner v. Glenshaw Glass Co.* 1955 348 U.S. 426, 431. Which confirmed that “all gains or undeniable accessions to wealth, clearly realized, over which a taxpayer has complete dominion, are included in gross income”.

³⁵¹ United States Government Accountability Office 2013: 12-14.

³⁵² Aqiu 2014. Internal Revenue Service (IRS) Notice 2014-21.

³⁵³ Aqiu 2014: 1-2. See also Perkins 2020: 18.

³⁵⁴ Sinno 2019. Internal Revenue Service (IRS) Revenue Ruling 2019-24.

³⁵⁵ IRS 2020. <https://www.irs.gov/newsroom/virtual-currency-irs-issues-additional-guidance-on-tax-treatment-and-reminds-taxpayers-of-reporting-obligations#:~:text=In%20Notice%202014%2D21%2C%20the,property%20for%20federal%20tax%20purposes.&text=The%20IRS%20is%20aware%20that,not%20report%20their%20transactions%20properly..> Accessed on 19/08/2020.

³⁵⁶ Aqiu 2014: 2.

of or used the DCVC as a payment settlement system to purchase goods and services.³⁵⁷ Moreover, any DCVC payments received partially or wholly as a salary or wage are subject to the federal level income tax regulations. Similarly, any crypto-currency payments which company or a self-employed receives forms part of the company's taxable property.³⁵⁸

As taxpayers are required to report and pay taxes on all income received, including that relating to crypto-currency, failure by a party to comply with such requirements may result in that party being charged and found guilty of tax evasion. In comparison, the treatment of DCVC's and the approach taken by the SARS in South Africa was identical to the approach taken by the IRS in America.³⁵⁹

There is no regulation in America at the federal level, which provides for the charging of VAT therefore, unless a state law to the contrary exists, no VAT is levied on crypto-currencies or its involvement in any activities.

C) Other countries

Canada

The first country to regulate the taxation of crypto-currencies was Canada.³⁶⁰ Although not recognised as legal tender, the usage of crypto-currency as a digital currency is allowed.³⁶¹

The Canada Revenue Agency (CRA) has taken the approach of treating crypto-currencies as commodities.³⁶² Under Canadian law, any gains or losses which arise as a result of disposing of a commodity have to be reported by citizens. In addition, when filing taxes crypto-currency must be treated as capital.³⁶³ Moreover, where DCVC's are used to purchase goods or services, such transaction is viewed and

³⁵⁷ Perkins 2020: 18.

³⁵⁸ Perkins 2020: 18.

³⁵⁹ See Chapter, section 3.5, sub-section A.

³⁶⁰ Morton 2020: 134.

³⁶¹ Morton 2020: 134-135.

³⁶² Government of Canada 2019. <https://www.canada.ca/en/revenue-agency/programs/about-canada-revenue-agency-cra/compliance/digital-currency/cryptocurrency-guide.html>. Accessed 22/10/2020. See also Mothokoa 2017: 47.

³⁶³ Government of Canada 2019. <https://www.canada.ca/en/revenue-agency/programs/about-canada-revenue-agency-cra/compliance/digital-currency/cryptocurrency-guide.html>. Accessed 22/10/2020.

treated as a barter transaction.³⁶⁴ Therefore, Morton points out that sellers are legally required to include the *fiat* currency value (i.e. Canadian Dollars) of the goods or services which they provided, in exchange for the clients DCVC, in their income for tax purposes.³⁶⁵

The CRA further states that although the possession of crypto-currency is not taxable, DCVC's are subject to normal tax rules where they are traded, sold, donated or exchanged for other DCVC's.³⁶⁶

As highlighted by Mothokoa, the CRA adopted the approach followed by the court in *Stewart v Canada*,³⁶⁷ that an activity is presumed to be commercial where it contains no personal element. Thus, the DCVCs produced through mining of a recipient, who appears to be in the business of mining DCVCs, forms part of the miner's inventory and are subject to valuation at the end of the year.³⁶⁸

Sweden (Member of the European Union)

In Sweden, a man named David Hedquist who wanted to start a crypto-currency exchange, approached the Revenue Law Commission (RLC) in order to obtain their legal opinion regarding to the tax implications for the said exchange. The legal question which arose was whether the exchange of fiat currency for crypto-currency was subject to VAT. According to the RLC, crypto-currencies such as Bitcoins are similar in nature to foreign exchange activities and therefore any entity which deals in crypto-currency is obligated to pay VAT.³⁶⁹

The Swedish Tax Administration (STA) referred the case on appeal to the Court of Justice of the European Union (CJEU), which found that transactions where *fiat* currency is exchanged for crypto-currency is exempt from VAT.³⁷⁰ In light of the

³⁶⁴ A barter transaction arises where an exchange for goods or services without the use of legal tender.

³⁶⁵ Morton 2020: 135. See also Government of Canada 2019. <https://www.canada.ca/en/revenue-agency/programs/about-canada-revenue-agency-cra/compliance/digital-currency/cryptocurrency-guide.html>. Accessed 22/10/2020.

³⁶⁶ Government of Canada 2019. <https://www.canada.ca/en/revenue-agency/programs/about-canada-revenue-agency-cra/compliance/digital-currency/cryptocurrency-guide.html>. Accessed 22/10/2020.

³⁶⁷ *Stewart v. Canada* SCR 2002 645(2).

³⁶⁸ Mothokoa 2017: 47. See also Oakey and Brown 2018. <https://www.bakertilly.ca/en/btc/publications/taxalert-bitcoin-mining-cra-interpretation-under-fire>. Accessed on 18/10/2020.

³⁶⁹ *Skatteverket v Hedquist* CJEU 2015 C-264(14) ECLI:EU:C:2015:718.

³⁷⁰ *Skatteverket v Hedquist* CJEU 2015 C-264(14) ECLI:EU:C:2015:718.

aforementioned judgement, it is evident that the European Union stance, which was adopted by the Swedish authorities, pertaining to the treatment of crypto-currencies with regard to VAT is similar to South Africa.

3.6 Consumer risk

The OECD indicates that due to the complex and often costly nature of financial products that are on offer from financial service providers, regulations aimed at providing protection to consumers in the financial sector carry an indispensable importance with them.³⁷¹ Financial sector regulations, which the crypto-currency realm currently exists outside of, affords consumers certain protections which essentially place consumers and financial services providers on equal footing by, amongst other means, requiring that certain information must be disclosed or available to the consumers so as to protect consumers from exploitation where asymmetric information flows.³⁷²

As discussed in Chapter Two, the lack of regulation of crypto-currency creates various risks for consumers, being the users of crypto-currency. Although common law remedies may be at the disposal of consumers, the ECB points out that they need to be certain that they enjoy sufficient protection in the events of fraud, theft, and situations where the “key actors” within the crypto-currency realm cease activity.³⁷³ Therefore, Falkena *et al* observe that, in order to protect the users within the crypto-currency realm, it is of the utmost importance that regulation which promotes transparency, disclosure, and integrity by CASP’s, as well as provide for cost-efficient and effective remedial measures for consumers is created by regulatory authorities.³⁷⁴

A) South Africa

There currently exists various examples of legislation which provide for consumer protection, such as: the Consumer Protection Act (CPA);³⁷⁵ the Financial Services

³⁷¹ Organisation for Economic Co-operation and Development (OECD) 2011: 5. See also Morton 2020: 134.

³⁷² Falkena *et al.* 2005: 3.

³⁷³ European Central Bank 2015: 22.

³⁷⁴ Falkena *et al.* 2005: 3.

³⁷⁵ *Consumer Protection Act* 68/2008.

Ombuds Schemes Act (FSOS);³⁷⁶ the Financial Advisory and Intermediaries Services Act (FAIS);³⁷⁷ and the National Credit Act (NCA).³⁷⁸ However, it is widely accepted that the existing legislation are not sufficient to deal with the newest technological innovation that is crypto-currency.

In order to ensure that South Africans enjoy a safe and sound financial eco-system, the participants of the system as well as the system itself are highly regulated. The allowance of crypto-currency into this financial eco-system, prior to the adoption of an adequate regulatory framework, would inevitably leave the South African financial system exposed to potential financial and consumer risks.

i) Consumer Protection Act (CPA)

Nieman,³⁷⁹ states in his article that no obligations exist on exchanges and wallet providers to disclose "...service fees or charges associated with VC transactions, the volatility and unregulated nature of the VC ecosystem, or any of the other associated risks", therefore creating a picture that consumers enjoy no protection at all until the CPA is amended to encompass crypto-currency.

In terms of Section 5 (1)(a) of the CPA, the CPA is applicable to every transaction that occurs within South Africa, unless exempted by subsection 2 or subsection 3 and 4.³⁸⁰ Further, the CPA goes on to define a transaction as the supply, agreement to supply, or potential supply of any goods or services in exchange for consideration, during the ordinary course of business.³⁸¹ Moreover, in terms of the CPA, "goods" include any intangible product such as data or code written or encoded on any medium,³⁸² thus the meaning of "goods" encompassed the virtual tokens which users exchange their fiat currency for. It could therefore be reasonably argued that, unless the transaction falls within one of the circumstances where the transaction becomes excluded,³⁸³ the users of crypto-currency are consumers who are protected by the CPA.

³⁷⁶ *Financial Services Ombuds Schemes Act 37/2004.*

³⁷⁷ *Financial Advisory and Intermediary Services Act 37/2002.*

³⁷⁸ *National Credit Act 34/2005.*

³⁷⁹ Nieman 2015: 1990.

³⁸⁰ *Consumer Protection Act: sec 5(1)(a).*

³⁸¹ *Consumer Protection Act: sec 1.*

³⁸² *Consumer Protection Act: sec 1.*

³⁸³ Crypto-currency transactions are not excluded from the application of the CPA, however, transactions where the state is the consumer or the consumer is a juristic person with an annual

This position is only strengthened when taking the purposes of the CPA into account. These purposes are contained in Section 3 of the Act, which provide for the promotion and advancement of South African consumers social and economic welfare through: maintaining a regulatory framework for a consumer market that is fair, efficient, accessible, sustainable and generally provides for consumer benefit;³⁸⁴ reducing disadvantages which low-income consumers, or consumers with a limited literacy, reading or comprehension level experience during the supply of goods or services;³⁸⁵ promoting fair business practices;³⁸⁶ and protecting consumers from improper trade practises which are unfair or unreasonable and conduct which is fraudulent, deceptive, misleading.³⁸⁷ In light of the above view, suppliers are obligated to disclose information in terms of Part D of Chapter 2 of the CPA.

ii) Financial Advisory and Intermediaries Services Act (FAIS)

The FAIS Act was created with the purpose of protecting the consumers of financial services and products, as well as ensuring that consumers receive adequate information about the financial product which they make use of.³⁸⁸

Crypto-currency is currently not recognised as legal tender nor as a security in South Africa. As a result, DCVCs do not meet the definition of a “financial product” as defined in the FAIS Act.³⁸⁹ This creates a regulatory vacuum as the FAIS Act only applies to “financial services” and “financial products”. Subsequently Crypto-currency exchanges are almost completely exempt from having to adhere to the FAIS Act.³⁹⁰ However, Schoeman indicates that the argument exists that when an exchange takes in *fiat* currency, the exchange will be obligated to meet the requirements of the bank holding the exchanges deposits. The said bank will therefore be placed in a position to enforce

turnover or asset value of over R2 million, such consumer does not enjoy the protection of the CPA.

³⁸⁴ *Consumer Protection Act*: sec 3(1)(a).

³⁸⁵ *Consumer Protection Act*: sec 3(1)(b).

³⁸⁶ *Consumer Protection Act*: sec 3(1)(c).

³⁸⁷ *Consumer Protection Act*: sec 3(1)(d).

³⁸⁸ The Banking Association of South Africa 2020. <https://www.banking.org.za/consumer-information/consumer-information-legislation/financial-advisory-and-intermediary-services-act/#:~:text=The%20Purpose%20of%20the%20Financial,and%20about%20the%20people%20and>. Accessed on 02/10/2020.

³⁸⁹ *Financial Advisory and Intermediary Services Act*: sec 1. Refer to definition of “Financial product”.

³⁹⁰ This is especially true especially where exchanges only operate as a crypto-to-crypto exchange.

its compliance requirements on the exchange,³⁹¹ indirectly forcing the exchange to comply with the regulatory framework governing the banking institution.³⁹²

The following case demonstrates the need for consumers to have adequate information about the financial products which they use and the parties who supply the said product. According to the Hawks,³⁹³ a minimum of 27 500 South Africans suffered financial damage by losing their investments in the company, BTC Global, as a result of falling victim to fraud.³⁹⁴ The victims' investments were made by way of Bitcoin deposits into an online wallet address, with deposits ranging between R16 000 and R1.4 million, amounting to an estimated total of R1 billion. The consumers involved in these transactions became victims as a result of the infamous anonymity provided by DCVCs. The perpetrator has since not been identified and thus DCVC users are precluded from even making use of common law remedies against the fraudster. Consumers would have enjoyed protection had the crypto-currency trading company been legally required to be licensed, therefore providing minimum conduct standards.

Prior to the occurrence of the above incident, both SARS and the SARB had publicly expressed concerns of fraud related to DCVCs, and issued various warnings to the public.³⁹⁵ The failure of consumers to take heed of these warnings highlights the need for statutory intervention by way of regulation, so as to provide adequate protection to users of DCVCs'. Regulation could simply be understood as the final form of protection offered to consumers who are unable to protect themselves.

³⁹¹ Failure by the exchange to meet the Banks requirements may ultimately lead to the bank closing the accounts of the exchange. This would be because the Bank has KYC and CDD requirements which it must comply with, therefore forcing the exchanges who wish to open or maintain a bank account with the said bank to adhere to the KYC CDD of the bank.

³⁹² Schoemanlaw Inc 2019. <https://www.golegal.co.za/cryptocurrency-exchanges-regulatory/>. Accessed on 01/10/2020.

³⁹³ The HAWKS are a "Directorate for Priority Crime Investigation" which has been established within the South African Police Service as an independent body. They are "... responsible for the combating, investigation and prevention of national priority crimes such as serious organized crime, serious commercial crime and serious corruption...".

³⁹⁴ Stolp *et al.* 2018: 12.

³⁹⁵ See Chapter 3, paragraph 3.2.

iii) Regulatory Recommendations

In terms of the South African twin peaks model,³⁹⁶ the Financial Sector Conduct Authority,³⁹⁷ (FSCA) is responsible for providing protection to South African financial consumers in the context of market conduct by financial services providers. The IFWG, which the FSCA is a member of, released its “*Position Paper on Crypto Assets*” during 2020.³⁹⁸ This paper contains the latest proposed regulatory recommendations. In terms of the Position Paper, entities providing crypto-currency services be regarded as Crypto-Asset Service Providers (CASPs). Various types of CASPs are also identified in the Position Paper such as: crypto-currency trading platforms; crypto-currency vending machine providers; crypto token issuers; digital wallet providers; crypto-currency safe custody services; and crypto-currency fund or derivative service providers.³⁹⁹

The Position Papers “Recommendation 9” suggests that the definition of “financial services” in the FSRA must be amended to provide for services rendered in respect of crypto-currency. Further, such services would then be regulated and supervised from the perspective of “conduct-of-business”.⁴⁰⁰

It is further proposed that, services related to the “buying and selling of crypto assets” which fall under the definition of financial services, must be licensed and specific conduct standards must be developed in relation to the trading of crypto assets. The Conduct of Financial Institutions Bill (CoFI Bill)⁴⁰¹ will provide for the licensing requirements of businesses which deal in crypto-currency, however, the FSCA would be the ultimate authority responsible for issuing the said licenses. To date, no such amendments have been made to the aforementioned Acts. However, the above proposals will undoubtedly provide expansive protection against risks faced by consumers. This will ultimately provide for a financial system that is not detrimentally affected, yet is more inclusive of DCVCs.

³⁹⁶ See Chapter 3, paragraph 3.3.

³⁹⁷ The Financial Sector Conduct Authority, was established under Section 56 of Financial Sector Regulation Act.

³⁹⁸ Intergovernmental Fintech Working Group Crypto Asset Regulatory Working Group 2020. Position Paper on Crypto Assets. Available at http://www.treasury.gov.za/comm_media/press/2020/20200414%20IFWG%20Position%20Paper%20on%20Crypto%20Assets.pdf.

³⁹⁹ Crypto Asset Regulatory Working Group 2020: 24.

⁴⁰⁰ Crypto Asset Regulatory Working Group 2020: 27.

⁴⁰¹ *The Conduct of Financial Institutions Bill (Second Draft)*

B) United States of America

Among the federal prudential banking regulators in the USA is the Consumer Financial Protection Bureau (CFPB), that has the mandate to provide protection to consumers of financial products and services.⁴⁰²

The CFPB was created by the Dodd-Frank Act,⁴⁰³ as a response to the lack of consumer protection during the 2008 GFC. Labonte indicates that most of the financial consumer protection areas which had been split between different agencies were brought in under the CFPB, in addition to the new authority which it had been granted. The purpose of the CFPB is "...to enhance consumer protection and bring the consumer protection regulation of depository and non-depository financial institutions into closer alignment".⁴⁰⁴ An advisory warning of the risks related to investing in and trading crypto-currency was publicly released to consumers in August of 2014 by the CFPB.⁴⁰⁵ However, to date there seems to be no intention of implementing any specific crypto-currency regulations, as indicated by CFPB director, Mick Mulvaney.⁴⁰⁶ Nevertheless, the powers granted to the CFPB in order for it to provide protection to consumers from "unfair, deceptive, or abusive acts and practices" could arguably apply to exchanges of DCVCs as well.⁴⁰⁷

Tu and Meredith indicate that the BSA is also aimed at protecting consumers from suffering financial loss as a result of the non-performance or failure of a regulated money transmitter.⁴⁰⁸ As already mentioned in this Chapter, any company that is in the business of transmitting money from one person to another is, in terms of the BSA, regarded as a money transmitter.⁴⁰⁹ In the USA, different states may impose stricter requirements than others, however, as pointed out by Tu and Meredith, the requirement that "all money transmitters must be licensed" is the regulatory golden thread which exists.⁴¹⁰

⁴⁰² Labonte 2020: 16.

⁴⁰³ *Consumer Financial Protection Act* of 2010. Also known as the Dodd Frank Act.

⁴⁰⁴ Labonte 2020: 15.

⁴⁰⁵ Consumer Financial Protection Bureau "Risks to Consumers posed by Virtual Currencies" Consumer Advisory August 2014.

⁴⁰⁶ CB Insights Research Briefs 2018. <https://www.cbinsights.com/research/trump-cryptocurrency-regulations/>. Accessed 25/10/2020.

⁴⁰⁷ Perkins 2020: 19-20.

⁴⁰⁸ Tu and Meredith 2015: 331.

⁴⁰⁹ See also Brito and Castillo 2013: 29.

⁴¹⁰ Tu and Meredith 2015: 331.

Brito and Castillo indicate that the requirement of money transmitters having to be licensed, was aimed at providing protection to consumers of money transmitters as money transmitters generally are not covered by the Federal Deposit Insurance Corporation,⁴¹¹ (FDIC).⁴¹²

The approach taken in the US is similar to that of South African regulators, in that no specific crypto-currency consumer regulation is adopted but rather an attempt at consumer protection is made through bringing DCVC dealers within the same sphere as money services businesses, while using existing legislation to provide protection in the same way that protection is afforded to consumers of traditional financial services and products.

C) Other countries

Canada

The Financial Consumer Agency of Canada (FCAC) is responsible for regulating and supervising financial entities for the purposes of achieving consumer protection. To date no official declaration has been released by the FCAC on how they intend on regulating DCVCs, or even if they plan on regulating them at all.⁴¹³ Palpably, consumer protection will be effected through the eventual realisation of regulation requiring DCVC dealers to register as MSBs, and therefore in a similar manner as South Africa and the USA.

3.7 Conclusion

In light of the above discussed risks, there is an undeniable trend in the approach being adopted by countries towards the regulation of crypto-currencies, so as to address those risks. The regulatory proposals and adoptions in South Africa conform very similarly to the approaches taken in the USA as well as other Countries. The main difference that does stand out, however, is that South Africa has been slow to regulate crypto-currency in comparison to the USA.

⁴¹¹ Explanation of FDIC done at footnote 226 above.

⁴¹² Brito and Castillo 2013: 29.

⁴¹³ Goodman and Partridge 2018: 12.

CHAPTER 4: CONCLUSION AND RECOMMENDATIONS

4.1 Introduction

Undoubtedly there is an increasing use of, and inclination towards, crypto-currency. Crypto-currencies carry with them benefits to better improve the payment settlements systems, as their design enables faster and cheaper payment settlements. However, the said benefits also have risk attached to them. As discussed, regulation around crypto-currency is needed in order to best realise those benefits without posing risk to the financial system. Regulation which completely outlaws DCVCs would undoubtedly go against any promotion of financial inclusion, as crypto-currency is a means of providing for financial inclusion of the poor, the unbanked and small start-up businesses.

4.2 Chapter overview and recommendations

Chapter 2 looked at the parties involved with DCVCs and certain risks which DCVCs posed. More notably, it also looked at what DCVCs were and how they function to enable an understanding for the adoption of a proper definition for such type of “currency”. South African regulators have moved away from the term “crypto-currency” and adopted the terms “crypto-assets”. The latest definition proposed by the CAR WG for crypto assets is

*“...a digital representation of value that is not issued by a central bank, but is traded, transferred and stored electronically by natural and legal persons for the purpose of payment, investment and other forms of utility, and applies cryptography techniques in the underlying technology”.*⁴¹⁴

This is a move away from the original proposed policy which required that the crypto-assets had to be issued by decentralised entities.⁴¹⁵ Although the wording for the definition of crypto-assets changed between the CAR WG’s consultation paper and their position paper, the meaning has stayed the same in that crypto-assets hold no legal tender status, as they are not issued by the central bank, and that they function as a medium of exchange and a store of value.

⁴¹⁴ Crypto Asset Regulatory Working Group 2020: 9.

⁴¹⁵ Crypto Asset Regulatory Working Group 2019: 9.

It would be submitted that “crypto-money” would be the more appropriate term, however, due to the current regulatory approach, as discussed in Chapter 3, it is acknowledged that crypto-assets is the overall more appropriate term. Further, CAR WG’s proposed definition is in line with what DCVCs are and how they function, but also makes clear that the central bank will not be issuing their own crypto-assets.

It would be recommended, however, that should the SARB issue their own convertible VC, such VC would fall under its own more appropriate term being “crypto-currency”, which would be separate to the class of crypto-assets, as the convertible VC would undoubtedly have legal tender status. The question that then arises would be, what is the difference between the SARB’s “crypto-currency” and e-money?

Chapter 3 looked at the South African regulatory approach in comparison to the approach of the USA as well as some other jurisdictions. As mentioned, there appears to be a general trend in the regulation of crypto-assets requiring that crypto asset service providers have to be registered. In South Africa the CASPs, which would include: trading platforms; wallet providers; intermediaries who hold and store the DCVC, or information about the DCVC or its user; and intermediaries for the buying and selling of DCVCs, would be required to be registered as accountable institutions. This is the equivalent of the US requirement or registration as an MSB. The CAR WG’s proposed regulatory amendments would also address the current risks which DCVCs currently pose to money laundering and terrorist financing, tax evasion, consumers and the South African financial stability as a whole. Once these proposed regulations are enacted, such regulations would undoubtedly provide protection to consumers of crypto-currency through the Financial Intelligence Centre Act.

4.3 Conclusion

Crypto-currency is a technological innovation with various advantages which all jurisdictions should attempt to harness. Although South African regulators have made some attempt at adopting some regulation for DCVCs, it is recommended that they make an effort to see to it that these regulations are put in place as soon as possible. The reason being that the comprehensive recommendations which the IFGW

proposed will not only mitigate the identified risks but will also promote financial inclusion. A trial-and-error approach can then be adopted in order to tweak the regulation until the most optimal regulation is achieved. This would be done by not only looking at South African examples and cases, but by observing international regulatory cases and responses, especially those of the pro-active USA.

BIBLIOGRAPHY

Books

ANTONOPOULOS AM

“Mastering Bitcoin: Unlocking Digital Cryptocurrencies” (2014) 1st ed.
Sebastol: O’Reilly Media Inc.

BRITO J AND CASTILLO A

“Bitcoin: a primer for policymakers” (2013) 2nd ed. Virginia: Mercatus Center at
George Mason University.

CARLISLE D

“Virtual Currencies and Financial Crime Challenges and Opportunities” (2017)
Occasional Paper. London: Royal United Services Institute for Defence and
Security Studies.

DE KOKER A AND BADENHORST G

“Value Added Tax in South Africa” (2020) Commentary. Johannesburg: Lexis
Nexis.

FALKENA H, BAMBER R, LLEWELLYN D AND STORE T

“Financial Regulation in South Africa” (2005) 2nd ed. Johannesburg: SA
Financial Sector Forum.

HOUBEN R AND SNYERS A

*“Cryptocurrencies and Blockchain. Legal Context and Implications for
Financial Crime, Money Laundering and Tax Evasion”* (2018) Brussels: Policy
Department for Economic, Scientific and Quality of Life Policies.

ITZIKOWITZ A, MEIRING I AND GUNNING E

“Blockchain & Cryptocurrency Regulation” (2019) 1st ed. London: Global Legal
Group Ltd.

MAGNUSON W

“*Blockchain Democracy: Technology, Law and the Rule Of The Crowd*” (2020)
Cambridge: Cambridge University Press.

MOORCROFT J AND VESSIO ML

“*Banking Law and Practise*” (2020) Johannesburg. LexisNexis.

Journal Articles

AJELLO NJ

“Fitting a Square Peg in a Round Hole: Bitcoin, Money Laundering, and the Fifth Amendment Privilege Against Self-Incrimination” (2015) *Brooklyn Law Review*. 80(2): 435-461.

ALLEN HJ

“Putting the Financial Stability in Financial Stability Oversight Council” (2015) *Ohio State Law Journal*. 76(5): 1087-1152.

AMMOUS S

“Economics beyond financial intermediation: Digital currencies’ possibilities for growth, poverty alleviation, and international development” (2015) *The Journal of Private Enterprise*. 30(3): 19-50.

ANIMASHAUN S

“Regulating Virtual Currency Payment Systems” (2019) *Cambridge Law Review*. 4(2): 29-67.

ARNER DW

“The Global Credit Crisis of 2008: Causes and Consequences” (2009) *The International Lawyer*. 43(1): 91-136.

CARNEY M

“The Future of Money” (2018) *Speech to the Inaugural Scottish Economics Conference, Edinburgh University.*

CHAN E

“All about Time: Finality and Completion of Payment by Funds Transfer” (2005) *Singapore Academy of Law Journal.* 17(1): 84-140.

CHODOROW A

“Bitcoin and the Definition of Foreign Currency” (2016) *Florida Tax Review.* 19(6): 365-398.

CHU D

“Broker-Dealers for Virtual Currency: Regulating Cryptocurrency Wallets and Exchanges” (2018) *Columbia Law Review.* 118(8): 2323-2360.

DE MINK J

“The rise of Bitcoin and other cryptocurrencies” (2017) *De Rebus.* December (580): 30-32.

DOURADO E AND BRITO J

“Cryptocurrency” (2014) *The New Palgrave Dictionary of Economics:* 1.

EVERETTE J

“Risks and vulnerabilities of virtual currency cryptocurrency as a payment method” (2017) *Public-Private Analytic Exchange Program.*

GODWIN A, HOWSE T AND RAMSAY I.

“Twin Peaks: South Africa's Financial Sector Regulatory Framework” (2017) *South African Law Journal.* 134(3): 665-702.

GOODMAN A AND PARTRIDGE M

“Cryptocurrency in Canada” (2018) *Practical Law Canada Practice Note w-013-8891*. 1-15.

HALLIDAY T, LEVI M AND REUTER P

“Anti-Money Laundering: An Inquiry into a Disciplinary Transnational Ledger Order” (2019) *U.C Irvine Journal of International, Transnational and Comparative Law*. 4(1): 1-25.

HERDIN, PN AND PARTOGI Y

“How to Execute a Proactive Approach to Prevent Loss from Ponzi Scheme” (2015) *ALSA Academic Journal*. 2015(1): 8-14.

HOMELAND SECURITY ENTERPRISE

“*Risks and Threats of Cryptocurrencies*” (2014) Virginia: Homeland Security Studies and Analysis Institute.

HOWARD C

“The Applicability of the BSA/AML Regulatory Regime to Indirect Lending Business Models” (2017) *Transactions: The Tennessee Journal of Business Law*. 19(1): 45-78.

HUGO C AND SPRUYT W

“Money laundering, terrorist financing and financial sanctions: South Africa’s response by means of the Financial Intelligence Centre Amendment Act 1 of 2017” (2018) *Tydskrif vir die Suid-Afrikaanse Reg*. 2: 227-474.

KALENDER AU

“*On the potential effects of cryptocurrency on anti-corruption*” (2018) International Bar Association
<<https://www.ibanet.org/Article/NewDetail.aspx?ArticleUid=A9B2DAD2-BAEC-40DA-9CD1-6CA9165A9C42>>. Accessed on 27/05/2020.

LAHMAN LD

“Bitcoins, Blockchains and Satoshi Nakamoto: A Lawyer's Primer” (2018) *Oklahoma Bar Journal*. 89(23) September 2018: 18-23.

LASTRA RM

“Lender of Last Resort, an International Perspective” (1999) *International and Comparative Law Quarterly*. 48(2): 340-361.

MABUNDA S

“Cryptocurrency: The New Face of Cyber Money Laundering” (2018) *2018 International Conference on Advances in Big Data, Computing and Data Communication Systems (icABCD)*. Durban: 1-6.

MALOUMBY-BAKA RC AND KINGOMBE C

“The quest to Lower High Remittance Costs to Africa: A Brief Review of the Use of Mobile Banking and Bitcoins” (2015) *Working Paper 10*.

MBIYAVANGA, STEFAN

“Cryptolaundering: Anti-Money Laundering Regulation of Virtual Currency Exchanges” (2019) *Journal of Anti-Corruption Law*. 3(1): 1-15.

MARIANI G

“Using the Bank Secrecy Act Paper Trail to Develop Financial Investigations” (1999) *United States Attorneys' Bulletin*. 47(3): 30-33.

MORTON DT

“The Future of Cryptocurrency: An Unregulated Instrument in an Increasingly Regulated Global Economy” (2020) *Loyola University Chicago International Law Review*. 2020 Winter 16(1): 129-143.

NABILOU H AND PRÜM A

“Ignorance, Debt, and Cryptocurrencies: The Old and the New in the Law and Economics of Concurrent Currencies” (2019) *Journal of Financial Regulation*. 2019 March 5(1): 1-40.

NIEMAN A

“A Few South African Cent' Worth on Bitcoin” (2015) *PER*. 18(5): 1979-2011.

PLASSARAS NA

“Regulating digital currencies: Bringing Bitcoin within the reach of the IMF” (2013) *Chicago Journal of International Law*. 14(1): 378-407

RASKIN M AND YERMACK D

“Digital currencies, decentralized ledgers, and the future of Central Banking” (2016) *NBER Working Paper Series*. Working Paper 22238: 1-20.

SCHULZE WG

“E Money and Electronic Fund Transfers - A Shortlist of Some of the Unresolved Issues” (2004) *South African Mercantile Law Journal*. 16(1): 50-66.

SEE B, MIRU A, MUHADAR AND PASERANGI, H

“Know Your Customer (KYC) Principles Relates to Bank Confidentiality as an Effort to Prevent Money Laundering Crimes” (2019) *Journal of Law, Policy and Globalization*. 81: 101-108.

TU KV AND MEREDITH MW

“Rethinking Virtual Currency Regulation in the Bitcoin Age” (2015) *Washington Law Review*. 90(1): 271-348.

WHITE E

“Private Banking Interests of New York” (1902) *The Banking Law Journal*. 19(3): 173-196.

XIE R

“Why China Had to Ban Cryptocurrency but the U.S. Did Not: A Comparative Analysis of Regulations on the Crypto-Markets Between the U.S. And China” (2019) *Washington University Global Studies Law Review*. 18(2): 457-492.

YU S

“Still Keeping Secrets: Bank Secrecy, Money Laundering, and Anti-Money Laundering in Switzerland and Singapore” (2019) *IALS Student Law Review*. 6(1): 19-25.

Policy Documents

AQUI KA

2014. Internal Revenue Service Notice 2014-21.

BASEL COMMITTEE ON BANKING SUPERVISION

“International Association of Deposit Insurers: Core Principles for Effective Deposit Insurance Systems” (2009)

COMMITTEE FOR PAYMENTS AND MARKET INFRASTRUCTURE

“Cross-border Retail Payments” (2018) *Bank for International Settlements*. February: 1-41.

CONSUMER FINANCIAL PROTECTION BUREAU

“Risks posed to consumers by virtual currencies” (2014) *Consumer Advisory*. August: 1-6.

CRYPTO ASSETS REGULATORY WORKING GROUP

“*Consultation Paper on Policy Proposals for Crypto Assets*” (2019) Financial Sector Conduct Authority Publications.

CRYPTO ASSETS REGULATORY WORKING GROUP

“*Position Paper on Crypto Assets*” (2020) Financial Sector Conduct Authority Publications.

FEDERAL DEPOSIT INSURANCE CORPORATION

“Bank Secrecy Act (12-04). DSC Risk Management Manual of Examination Policies.

EUROPEAN BANKING AUTHORITY

“EBA Opinion on ‘Virtual Currencies’” (2014) *European Banking Authority*. July.

EUROPEAN CENTRAL BANK

“Virtual Currency Schemes” (2012) Frankfurt: European Central Bank.

EUROPEAN CENTRAL BANK

“Virtual Currency Schemes – A Further Analysis” (2015) Frankfurt: European Central Bank.

FINANCIAL ACTION TASK FORCE

“Virtual currencies - Key definitions and potential AML/CFT risks” (2014) *FATF Report*. June.

FINANCIAL ACTION TASK FORCE

“Convertible Virtual Currency Exchangers” (2015) *Guidance for a Risk-Based Approach to Virtual Currencies*. June.

FINANCIAL ACTION TASK FORCE

“International Standards on Combating Money Laundering and the Financing of Terrorism & Proliferation” (2012-2019) FATF, Paris.

FINANCIAL ACTION TASK FORCE

“Guidance for a Risk-Based Approach to Virtual Assets and Virtual Asset Service Providers” (2019) FATF, Paris.

FINANCIAL CRIMES ENFORCEMENT NETWORK

“Application of FinCen’s Regulations to Persons Administrators, Exchanging, or Using Virtual Currencies” (2013) *Department of Treasury Financial Crimes Enforcement Network Guidance*. FIN-2013-G001.

FINANCIAL STABILITY BOARD

“Crypto-asset Markets Potential Channels for Future Financial Stability Implications” (2018) October.

INTERNAL REVENUE SERVICE

“Virtual currency: IRS issues additional guidance on tax treatment and reminds taxpayers of reporting obligations” (2020)

[Accessed on 19/08/2020.](https://www.irs.gov/newsroom/virtual-currency-irs-issues-additional-guidance-on-tax-treatment-and-reminds-taxpayers-of-reporting-obligations#:~:text=In%20Notice%202014%2D21%2C%20the,property%20for%20federal%20tax%20purposes.&text=The%20IRS%20is%20aware%20that,not%20report%20their%20transactions%20properly.>)

LABONTE M

“Who Regulates Whom? An Overview of the U.S. Financial Regulatory Framework” (2020) *Congressional Research Service*. R44918 Version 7.

NATIONAL TREASURY

“Monitoring of Virtual Currencies” (2014) *USER ALERT*. September 2014: 1-4.

OFFICE OF THE COMPTROLLER OF CURRENCY

2020. *Bank Secrecy Act (BSA) & Related Regulations*.

<https://www.occ.treas.gov/topics/supervision-and-examination/bsa/bsa-related-regulations/index-bsa-and-related-regulations.html>>. Accessed on 30/072020.

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

“Draft G20 High Level Principles on Financial Consumer Protection for Public Consultation” (2011)

PERKINS D

Cryptocurrency: The Economics of Money and Selected Policy Issues” (2020) *Congressional Research Service*. R45427.

SARB NATIONAL PAYMENT SYSTEM DEPARTMENT

“Position Paper on Electronic Money” (2009) *Position Paper NPS*. 01/2009: 1-10.

SARB NATIONAL PAYMENT SYSTEM DEPARTMENT

“Position Paper on Virtual Currencies” (2014) *Position Paper*. 2.

SARS

“SARS’s *Stance on the Tax Treatment of Cryptocurrencies*” (2018) <<https://www.sars.gov.za/Media/MediaReleases/Pages/6-April-2018---SARS-stance-on-the-tax-treatment-of-cryptocurrencies-.aspx>>. Accessed on 20/05/2020.

SECURITIES AND EXCHANGE COMMISSION

2013. Ponzi schemes Using virtual Currencies. *Investor Alert*. 153 (7/13): 1-3.

THE BANKING ASSOCIATION OF SOUTH AFRICA

“*Financial Advisory and Intermediary Services Act*” (2020) <<https://www.banking.org.za/consumer-information/consumer-information-legislation/financial-advisory-and-intermediary-services-act/#:~:text=The%20Purpose%20of%20the%20Financial,and%20about%20the%20people%20and>>. Accessed on 02/10/2020.

UNITED STATES GOVERNMENT ACCOUNTABILITY OFFICE

Virtual economies and currencies: Additional IRS guidance could reduce tax compliance risks” (2013) *Report to the Committee on Finance, U.S. Senate*. GAO-13-516.

UNITED STATES GOVERNMENT ACCOUNTABILITY OFFICE

“Virtual Currencies Emerging Regulatory, Law Enforcement, and Consumer Protection Challenges” (2014) *Report to the Committee on Homeland Security and Governmental Affairs, U.S. Senate*. May 2014.

Legislation

Republic of South Africa

Consumer Protection Act 68 of 2008.

Financial Advisory and Intermediary Services Act 37 of 2002.

Financial Intelligence Centre Act 31 of 2001.

Financial Sector Regulation Act 9 of 2017.

Financial Services Ombuds Schemes Act 37 of 2004.

Government Gazette 43447

Income Tax Act 58 of 1962.

National Credit Act 34 of 2005.

South African Reserve Bank Act 90 of 1989.

South African Revenue Services Act 34 of 1997.

Taxation Laws Amendment Act 23 of 2018.

Value-Added Tax Act 89 of 1991.

United States of America

Banks Secrecy Act of 1970.

Consumer Financial Protection Act of 2010

Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010.

Federal Reserve Act of 1933.

Glass-Steagall Act of 1933.

International Money Laundering Abatement and Financial Anti-Terrorist Financing Act of 2001.

Money Laundering Control Act of 1986.

USA Patriot Act.

United Kingdom

Currency and Bank Notes Act 1954

Case Law

Commissioner v. Glenshaw Glass Co. 1955 US 348. 426, 431

Skatteverket v Hedquist 2015 CJEU C-264/14. ECLI:EU:C:2015:718

Stewart v. Canada 2002 SCR 645(2).

United States v Coinbase, Inc., et al., 2017 United States District Court, North District of California 17-cv-01431-JSC.

Internet Sources and Unpublished Studies

BAUM SC

“Cryptocurrency fraud: a look into the frontier of fraud” (2018) *University Honors Program Theses*. 375.

BITCOINWIKI

“*Bitcoin history*” (2020)

<https://en.bitcoinwiki.org/wiki/Bitcoin_history>. Accessed on 31/03/2020.

BIZNEWS

“*Update –Mailbox: Curious case of a R33bn trade in a UAE linked cryptocurrency*” (2017)

<<http://www.biznews.com/global-investing/2017/08/28/r33bn-transfer-uae-linked-edinar-edr-cryptocurrency/>>. Accessed on 25/08/2020.

BLOCKNEWSAFRICA

"Bitcoin ATMs in Africa – Where to find them and how they work" (2020)
<<https://blocknewsafrika.com/bitcoin-atms-in-africa/>>. Accessed on 28/04/2020.

CB INSIGHTS RESEARCH BRIEFS

"Trump Official: No Need To 'Discourage' People From Entering The Cryptocurrency Market" (2018)
<<https://www.cbinsights.com/research/trump-cryptocurrency-regulations/>>. Accessed 25/10/2020.

CHOUDHURY SR

"It's a very good time to be a money launderer, and you can thank cryptocurrency" (2017)
<<https://www.cnbc.com/2017/08/04/icos-may-be-seen-as-securities-by-u-s-and-singapore-regulators.html>>. Accessed on 10/07/2020.

COIN ATM RADAR

"Bitcoin ATMs in South Africa" (2020)
<<https://coinatmradar.com/country/197/bitcoin-atm-south-africa/>>. Accessed on 28/04/2020.

COINGECKO

"Top 100 coins by market capitalization" (2020)
<<https://www.coingecko.com/en>>. Accessed on 31/03/2020.

COINLORE

"Cryptocurrency list" (2020)
<https://www.coinlore.com/all_coins>. Accessed on 31/03/2020.

COINMARKETCAP

"All cryptocurrencies" (2020)
<<https://coinmarketcap.com/all/views/all/>>. Accessed on 31/03/2020.

DE VILLIERS J

“We compared the prices of food essentials at Woolworths, Pick n Pay, Spar, Checkers, and Shoprite” (2020)

<<https://www.businessinsider.co.za/pick-n-pay-woolworths-spar-checkers-shoprite-essential-food-items-price-comparison-2020-1>>. Accessed on 10/02/2021.

EDUCBA

“Difference between money vs currency” (2020)

<<https://www.educba.com/money-vs-currency/>>. Accessed on 17/04/2020.

ERNSTZEN CV

2020. *Namibia’s Regulatory Response to Cross-Border Cryptocurrency Transactions*. Unpublished LLM Dissertation. Cape Town: University of Cape Town.

EXCHANGE RATES

“US Dollar to South African Rand Spot Exchange Rates for 2010” (2020)

<<https://www.exchangerates.org.uk/USD-ZAR-spot-exchange-rates-history-2010.html>>. Accessed on 31/03/2020.

FINANCIAL CRIMES ENFORCEMENT NETWORK

“What we do” (2020)

<<https://www.fincen.gov/what-we-do>>. Accessed on 02/08/2020.

GLOBE LEGAL RESEARCH

“Regulation of Cryptocurrency Around the World” (2018)

<<https://www.loc.gov/law/help/cryptocurrency/world-survey.php#southafrica>>. Accessed on 26/05/2020.

GOGO J

“Estonia revokes 500 crypto firms' licenses after \$220 billion money laundering scandal” (2020)

<https://news.bitcoin.com/estonia-revokes-500-crypto-firms-licenses-after-220-billion-money-laundering-scandal/>>. Accessed on 15/06/2020.

GOVENDER S AND MTHEMBU N

“*Proposed amendments to FICA schedules*” (2020)

<https://www.bizcommunity.com/Article/196/717/206072.html>>. Accessed on 29/07/2020.

GOVERNMENT OF CANADA

“*Guide for Cryptocurrency Users and Tax Professionals*” (2019)

<https://www.canada.ca/en/revenue-agency/programs/about-canada-revenue-agency-cra/compliance/digital-currency/cryptocurrency-guide.html>

Accessed 22/10/2020.

HELMS K

“*Akon City: \$6 billion cryptocurrency city set to begin construction*” (2020)

<https://news.bitcoin.com/akon-city-akoin-cryptocurrency/>>. Accessed on 21/06/2020.

HUANG R

“*Seven key things you should know about the halving of Bitcoin*” (2020)

<https://www.forbes.com/sites/rogerhuang/2020/05/11/seven-key-things-you-should-know-about-the-halving-of-bitcoin/#25eb0ed07b93>>. Accessed on

20/05/2020.

INTERNATIONAL MONETARY FUND

“*The IMF at a Glance*” (2020)

<https://www.imf.org/en/About/Factsheets/IMF-at-a-Glance>> (2020) Accessed on 11/02/2021.

LIQUID

“*How many cryptocurrencies are there*” (2019)

<https://blog.liquid.com/how-many-cryptocurrencies-are-there>>. Accessed on 31/03/2020.

LUNO

"Bitcoin merchant directory - South Africa" (2020)

<<https://www.luno.com/blog/en/post/south-africa-pay-with-bitcoin>>. Accessed on 28/04/2020.

LYNNE

"Is Bitcoin Legal? Countries Where Bitcoin Is Legal & Illegal 2020." (2020)

<<https://www.mitrade.com/forex/crypto/crypto-market/is-bitcoin-legal#linkTo-article-para5>>. Accessed on 12/10/2020.

MARSON J

"OneCoin Took in Billions. Then its Leader Vanished" (2020)

<<https://www.wsj.com/articles/onecoin-took-in-billions-then-its-leader-vanished-11598520601>>. Accessed on 31/10/2020.

MERRIAM WEBSTER

"Money" (2020)

<<https://www.merriam-webster.com/dictionary/money>>. Accessed on 17/04/2020.

MODISAGAE T

"The Role of Internal Audit in the Independent Review of Anti-Money Laundering Compliance in South Africa" (2013) Unpublished MPhil Dissertation. Pretoria: University of Pretoria.

MORGAN JP

"Testimony 1912: Morgan Epigrams" (1912)

<<https://memory.loc.gov/service/gdc/scd0001/2006/20060517001te/20060517001te.pdf>>. Accessed on 14/02/2021.

MOTHOKOA K

"Regulating crypto-currencies in South Africa: The need for an effective legal framework to mitigate the associated risks" (2017) Unpublished LLM Dissertation. Pretoria: University of Pretoria.

MUKWEHWA B

“Rethinking the regulation of virtual currency in South Africa” (2019)
Unpublished LLM Dissertation. Pretoria: University of Pretoria.

NAIR N

“Bitcoin 'scammers' BTC Global still under investigation, say Hawks” (2019)
<<https://www.timeslive.co.za/news/south-africa/2019-01-24-bitcoin-scammers-btc-global-still-under-investigation-say-hawks/>>. Accessed on 08/09/2020.

OAKEY J AND BROWN M

“Bitcoin mining: CRA interpretation under fire” (2018)
<<https://www.bakertilly.ca/en/btc/publications/taxalert-bitcoin-mining-cra-interpretation-under-fire>>. Accessed on 18/10/2020.

OSBORNE C

“MyCoin closes its doors, \$387 million in investor funds vanishes” (2015)
<<https://www.zdnet.com/article/mycoin-closes-its-doors-387-million-in-investor-funds-vanishes/>>. Accessed on 06/07/2020.

REIFF N

“The 10 Most Important Cryptocurrencies Other Than Bitcoin” (2020)
<<https://www.investopedia.com/tech/most-important-cryptocurrencies-other-than-bitcoin/>>. Accessed on 31/03/2020.

ROONEY K

“The IRS is warning thousands of cryptocurrency holders to pay their taxes”
(2019)
<<https://www.cnbc.com/2019/07/26/irs-is-warning-thousands-of-cryptocurrency-holders-to-pay-their-taxes.html>>. Accessed on 09/08/2020.

ROSSI M

“Why some Venezuelans have turned to bitcoin mining” (2017)
<<https://www.aljazeera.com/indepth/features/2017/04/venezuelans-turned-bitcoin-mining-170415124105593.html>>. Accessed on 28/04/2020.

SARB

“*Financial Stability*” (2020)

<<https://www.resbank.co.za/Financial%20Stability/Pages/FinancialStability-Home.aspx>>. Accessed on 25/05/2020.

SARS

“*What SARS does*” (2019)

<<https://www.sars.gov.za/About/Pages/default.aspx>>. Accessed 19/08/2020.

SCHOEMAN L

“*Bitcoin trading*” (2019)

<<https://www.sashares.co.za/bitcoin-trading/#gs.e6wnop>>. Accessed on 08/08/2020.

SCHOEMANLAW INC

“*The Regulatory Status Quo of Cryptocurrency Exchange*” (2019)

<<https://www.golegal.co.za/cryptocurrency-exchanges-regulatory/>>. Accessed on 01/10/2020.

SINGER A

“US authorities eager to deter citizens from unregistered crypto exchanges” (2020)

<<https://cointelegraph.com/news/us-authorities-eager-to-deter-citizens-from-unregistered-crypto-exchanges>>. Accessed on 14/02/2021.

SINGH J

Legal, functional and broad definitions of money: (Functions and Scopes).

<<https://www.economicdiscussion.net/money/legal-functional-and-broad-definitions-of-money-functions-and-scopes/593>>. 17/04/2020.

SINNO SR

“Internal Revenue Service (IRS) Revenue Ruling” (2019) 24.

STOLP J, PERUMAIL A AND SELFE E

“Blockchain and Cryptocurrency in Africa. A comparative summary of the reception and regulation of Blockchain and Cryptocurrency in Africa” (2018) *Baker Mckenzie*.

VAN VALKENBURGH P

“Framework for securities regulation of Crypto Currencies” (2018) *Coin Centre Report*.

UNITED NATIONS

“UN Operational Rates of Exchange” (2021)
<<https://treasury.un.org/operationalrates/OperationalRates.php>>. Accessed on 14/02/2021.

VILJOEN B

“Former cryptocurrency agency chief declared bankrupt as investors wait for millions” (2020)
<<https://www.news24.com/news24/SouthAfrica/News/former-cryptocurrency-agency-chief-declared-bankrupt-as-investors-wait-for-millions-20200706#:~:text=Former%20cryptocurrency%20agency%20chief%20declared%20bankrupt%20as%20investors%20wait%20for%20millions,-06%20Jul&text=Willie%20Breedt%2C%20CEO%20of%20VaultAge,bitcoin%20investors%20out%20of%20millions.&text=Willie%20Breedt%20is%20accused%20of,money%20investors%20had%20paid%20him>>. Accessed on 06/07/2020.

YUH J

“My Experiences and Explanations of The Gaming Black Market” (2013)
<<https://www.gameskinny.com/go33k/my-experiences-and-explanations-of-the-gaming-black-market>>. Accessed on 14/02/2021.