

Parliamentary

A guide to Understanding Major
Cryptocurrency Issues and Regulatory
Frameworks
Select Committee on Finance
25 May 2021

Budget
Office



The Parliamentary Budget Office

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- The PBO provides independent, objective and professional advice and analysis to Parliament on matters related to the budget and other money Bills
- The PBO supports the implementation of the Act by undertaking research and analysis for the finance and appropriations committees
- This presentation provides an introductory background on cryptocurrency, but also looks at the South African government stance on cryptocurrencies
- The brief further provides an update about the regulatory considerations, and sharing international experiences on cryptocurrencies and regulatory consideration

Outline

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- Centralised and Decentralised Cryptocurrencies
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- Cryptocurrencies and Taxation
- International Regulatory Trends and Experiences
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Introduction

- Cryptocurrency is a form of digital money, not a mainstream currency. Those who advocate for its use, often reflect on a list benefits related to cryptos. Equally, there are significant risks cited by sceptics
- Cryptos are a type of digital asset. As a digital currency, it uses a highly sophisticated type of encryption called cryptography to secure and verify transactions as well as to control the creation of new units of currency
- Cryptocurrency terminology includes, Digital currency, Virtual commodity, Crypto token Payment token, Cyber currency, Electronic currency
- Cryptocurrencies have enjoyed an exponential rise in popularity over the past decade
- With increased interests from retail investors, regulators around the world have grappled with the challenges associated with the regulation of cryptocurrencies
- Cryptocurrency is enabled by Blockchain technologies

Introduction

- Blockchain is a special kind of database, which refers to the whole network of distributed ledger technologies
- A *ledger* is “a book or other collection of financial accounts of a particular type.” It can be a computer file that records transactions. A ledger is actually the foundation of accounting and is as old as writing and money
- Blockchain aims to eliminate data tampering because of the way it tracks and stores data
- Blockchain creates trust in the data presented, therefore centralized third parties are not necessary
- Other common uses of blockchain include: payments, voting, supply chain monitoring, identity verification, healthcare, entertainment, energy, internet of things

Cryptocurrency history trends

2008-2009

- *Satoshi Nakamoto* published a paper that sets the ball rolling on cryptocurrency (Bitcoin): Bitcoin- A peer-to-peer Electronic Cash System
- Launch of Crypto Currency, Bitcoin in particular
- First bitcoin transaction is initiated when Nakamotos send Hal Finney, a computer programmer, 10 BTC

2011-2013

- Then Altcoins came in the market
- First Initial Coin Offering (ICO) Mastercoin (Omni)
- Bitcoin value reached \$ 1000

2014-2016

- First Ether Issued
- Ethereum ERC 20
- First stablecoin USDT Token

2017

- ICO grew significantly
- Market Capitalisation Peak

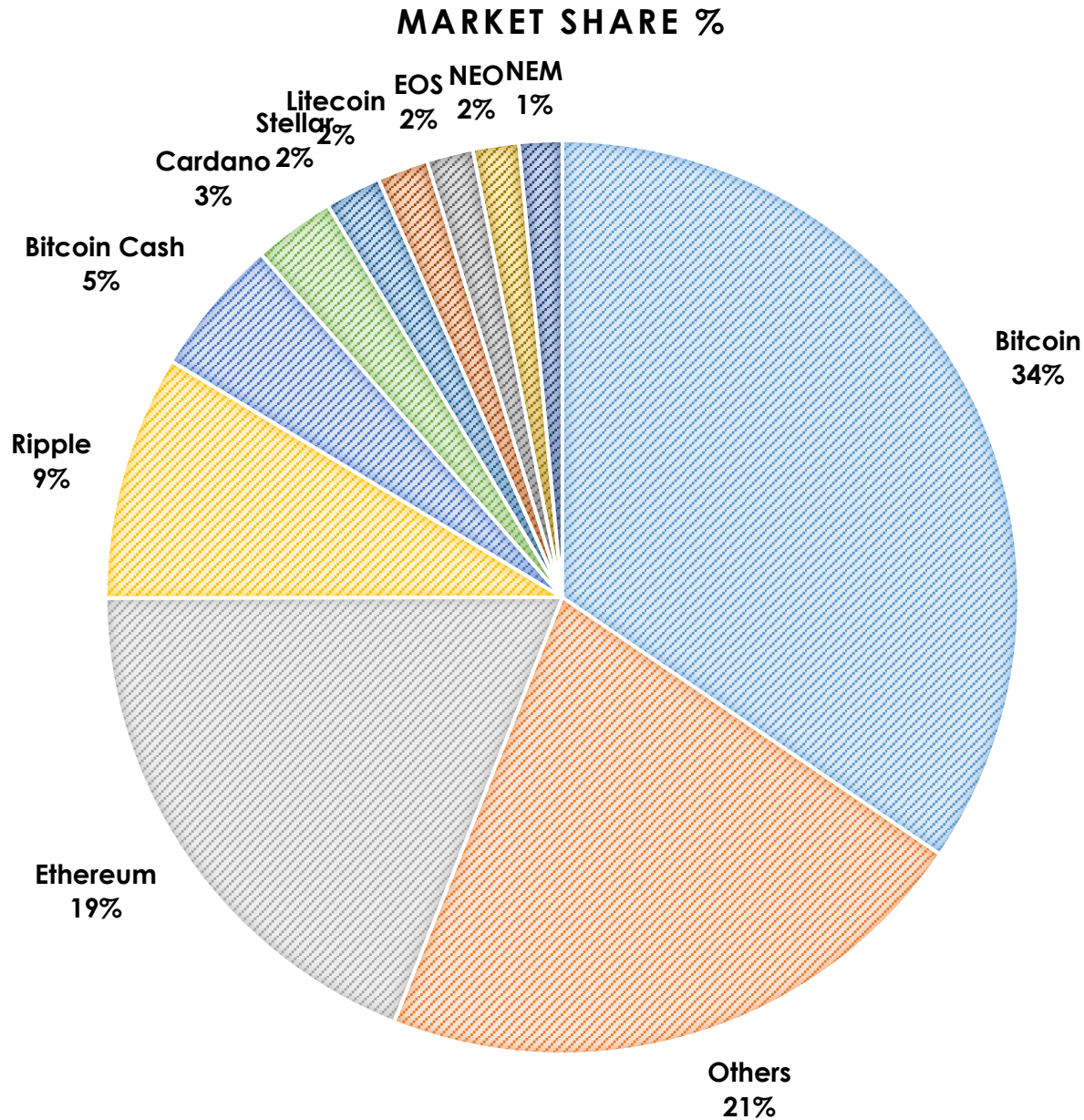
2018-2019

- Significant rise in number and value of ICOs
- ICO grew significantly

2020-now

- Crash in the market capitalisation
- Kick off Security Token Offerings (STOs) and Initial Exchange Offerings (IEOs) Issuance
- Upsurge in Stable Coins
- Elon Musk and other Big Names, pushing the value of the assets

Key cryptocurrencies in the market



Cryptocurrency and value creation?

- Cryptocurrencies lack intrinsic value (value based on simplified assumptions), compared to fiat money (government backed money)
- This places cryptocurrencies as a high risk or susceptible to high volatility or value is easily eroded and gained within a short period of time
- Cryptocurrencies gain their value based on the scale of community involvement (demand and supply), but
- Some factors of cryptocurrency value stem from the image and efficiency of the private blockchain-related corporations
- Cryptocurrency is primarily a manifestation of using a blockchain technology, to maintain value that it has to be usable within a certain blockchain ecosystem
- Scarcity stands for the finite nature of the digital coins. In a perfect scenario, the demand should exceed the supply of the coins, to make it more valuable
- Market capitalisation is an indicator of the cryptocurrency's value on the market
- Increasing number of technology giants and influencing people showing an interest in blockchain and digital ledgers (e.g. Elon Musk)
- There is also stablecoins cryptos, whose value is pegged to fiat money or traded commodities, e.g. Tether, True USD

Those who advocate for cryptocurrencies, reflect that there are *Benefits* and *Myths* surrounding them

Benefits of using or having cryptocurrencies?

- Use of technology and innovative (Financial technology -fintec) to enhance efficiency in market
- Reduce manipulation of the financial system-
- Eliminating extreme money printing
- Gives people control of their own money over regulators
- Cutting out the middleman, but there is always middleman?
- Serving the unbanked or widening access to financial services
- Technology (blockchain) behind crypto currency distinguish from others
- It is better than traditional investment in providing returns
- Capital Appreciation, and Income potential: dividends

And some of the Myths on cryptocurrencies

- Cryptocurrencies are only good for criminals
- You can make anonymous transactions using all cryptocurrencies
- The only application of Blockchain is Bitcoin
- All Blockchain activities are private

Risks facing cryptocurrency market players

Regulatory Risk

The lack of a common understanding and global or juristic specific regulatory framework means that governments are unable to monitor or protect users of the cryptocurrencies. This is despite the fact that, the initial attractions towards cryptocurrencies were their lack of regulation

Cryptocurrency hype risk

The main reason why cryptocurrencies have a lot of excitement is that most investors lack insight on virtual currencies before investing, and just end up listening to the noise to invest. The cryptocurrency hype in 2017 was one the many drivers of the fast-and-furious market surge, and later leading to panic

Security Risk

Scamming of potential investors, hacking or theft of data or information, are common themes and risks in the cryptocurrency market since inception in 2009. And with each scandal, the cryptocurrencies' values are compromised as well

Volatility Risk

High volatility in the value of the cryptocurrencies is essentially the risk in its unexpected market movements. High uncertainties brought about by cryptos require constant monitoring and regulations.

Risk facing cryptocurrency market players

Liquidity Risk

Cryptocurrencies have a risk of not being able to sell (or *liquidate*) an investment quickly at a reasonable price. Liquidity is important for any virtual asset. The forex market is considered the most liquid market in the world. But even in the forex market, the lack of liquidity of cryptocurrency may be a problem

Disappearing or cease risk

The history of cryptocurrency has shown that many different cryptocurrencies are currently in the market. Many are introduced regularly, however many of these altcoins have or may disappear from the market for various reasons, while others continue to flourish

Taxing of profits or gain Risk

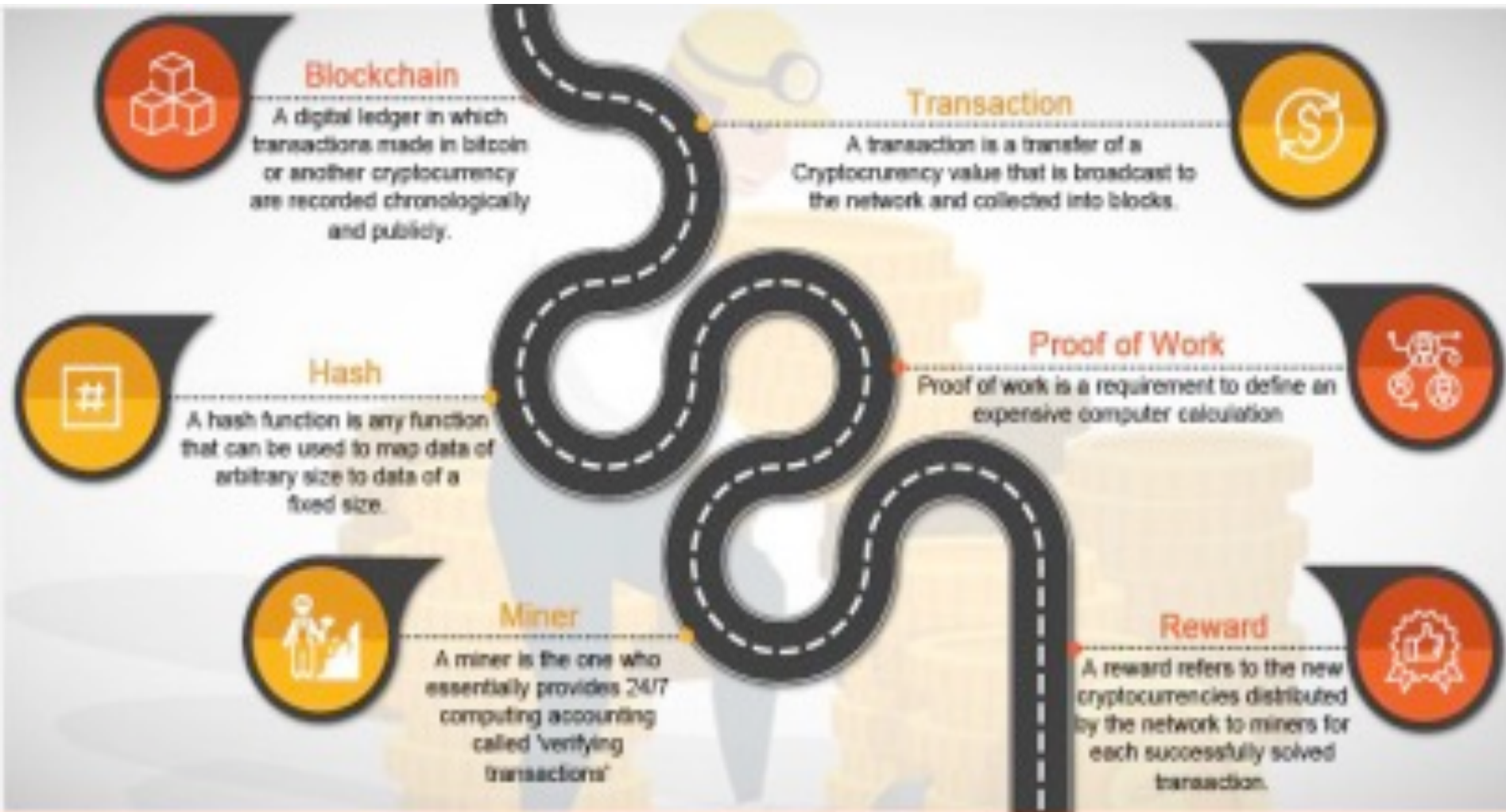
There is an underreporting in relation to cryptocurrency investment and related activities. This is also due to a lack of prescribed regulatory environments. Therefore, as government and authorities are mulling the regulations this is likely to lead to more tax liabilities for users

How does Cryptocurrency transactions Work?

A simple transaction will look like?

- A user provides cryptocurrency details to the cashier
- The cashier asks everyone in the network to see whether they have enough coins to buy the book
- All the cryptocurrency records holders using technology check their records to verify the buyer's coins
- If you do have enough, each node gives the thumbs-up to the cashier
- The nodes all update their records to show the transfer
- At random, a node gets a reward for the work

Cryptocurrencies Mining



Cryptocurrency Mining Explained

Initial Coin Offerings (ICO)

Understanding the basics of Initial Coin Offerings

Initial coin offering is equivalent to an initial public offering for a new start-up. With exception that the new idea revolves around a new cryptocurrency rather than a business idea

The user is trying to raise “money” in the form of other, already established cryptocurrencies. In other words, an ICO is crowdfunding, using other cryptocurrencies, for a new cryptocurrency that’s (hopefully) connected to a particular product

How it works-

- Create a white paper

A white paper is a detailed document explaining a business model and the reason a particular coin may really take off. Therefore, the founder has to prove that his coin has more interests leading to value creation

- Create platform for potential funders, e.g. create a tab in the website dedicated to ICO funding
- The founder to invite potential funders to invest in the created ICO
- The founder to sell a quantity of the crowdfunded coin in the form of *tokens*, which means digital assets

e.g. Normally ICOs ask for Bitcoin or Ethereum in exchange for the tokens. But can also accept traditional government-backed currencies (Fiat money) such as Rand

- Send the investors coin tokens

Cryptocurrencies: Coins vs Tokens

Coins

- A coin is a digital currency similar to a physical currency
- A coin operates on its own Blockchain with its own protocol
- Coins are purely used as a source of payment
- E.g. Bitcoins, Ethereum, EOS

Tokens

- A token is a digital asset issued on a particular project
- A token does not operate on its own Blockchain but has its own network (Ethereum)
- Tokens are used for payments and digital contracts
- E.g. Maker, Augur, Komodo, Colem

Cryptocurrencies: Centralised vs Decentralised

Centralised Cryptocurrencies

Centralised cryptocurrency is where the majority of the supply of coins and assets is managed by a single entity, such as Ripple

The more the currency is centralised, the more its management, supply, operations, rules associated with etc. is controlled by that particular single entity/authority

Mining (you cannot mine coins, but can only do the trade) and governance (development and management by a team of the entity) centralisation are the major reasons which the decentralisation and limitation of the cryptocurrency

Decentralised Cryptocurrencies

The core principle of decentralisation which means no single entity manages the crypto coins attracted the traders to invest in the cryptocurrency

Blockchain technology-based digital currency utilises a number of entities and distribute the load of a network amongst multiple computers of the network - distributed ledger-based decentralised currency as network provides easy traceability, transparency of transactions and relatively less prone to cyber-attacks

Cryptocurrencies: Centralised vs Decentralised

	Decentralised Cryptocurrencies	Centralised Cryptocurrencies
Governance	Control is being distributed among various entities, thus stability can be compromised and it may take longer to finalize the decision but the transparency of the network is not compromised as every decision is based on consensus.	Control of a single entity can be proved as an advantage when the decisions of an entity improves the stability of the system but can be risky if that entity makes mistakes or act in a corrupted manner
Security	Blockchain network eliminates the single point failure and decreases the vulnerability of cyber attacks being distributed in a peer-to-peer network.	The information and the confidential data is stored at a central hub (user gives up control of the data), which might be prone to cyber-attacks but might create ease in management.
Infrastructure	Requires a huge infrastructure to support and manage the various processes involved.	Requires less infrastructure support to manage its operations
Trusted network	No middleman is involved which assures that it is a trusted network as a transaction takes place between the sender and recipient only.	There is the interference of a third party in the process of transaction or any information sharing -intermediary may result in middle man attacks over the network.
Legal issues	The major factor which government authorities are concerned about in legalizing the cryptocurrency –it is difficult to regulate.	Relatively facing the lesser legal issues as they are easier to be managed by the authorities.

Financial Reporting Consideration –Cryptocurrencies

Accounting for cryptocurrencies

Accounting standards- International Financial Reporting Standards (IFRS)

- No accounting standard currently exists to explain how cryptocurrency should be accounted for
- Therefore, we have no alternative but to refer to existing accounting standards –apply the hierarchy of using the accounting standards

Some of the financial reporting challenges include;

- Classification of cryptocurrencies
- Measurement of cryptocurrencies (cost, fair value or impairment)
- Recognition of fair value gains or losses (Profit & Loss or OCI)
- Accounting for digital assets by third parties
- Basis and method of valuing cryptocurrencies

Accounting for cryptocurrencies

Cryptocurrency Classification –Assets

Definition of asset

- A present economic resource controlled by the entity as a result of past events
- An economic resource is a right that has the potential to produce economic benefits

Cryptocurrencies

- Cryptocurrency is designed as a medium of exchange. Other digital tokens provide rights to the use of other assets or services, or can represent ownership interests
- They represent specific amounts of digital resources which the entity has the right to control, and whose control can be reassigned to third parties

Characteristics for classification

- The primary purpose of the cryptographic asset; and
- How the cryptographic asset derives its inherent value

Accounting for cryptocurrencies

Definition of Asset -IFRS

- Are a present economic resource-a rights or access to future economic benefits (crypto assets are a digital representation of value or contractual rights created)
- Future economic benefits are expected -crypto assets have value in exchange and/or value in use
- Controlled by the holder entity -holder of private key, other criteria depending on contractual arrangements, jurisdictional regulation etc.
- Arise from past transactions –purchased on a blockchain network

Definition of asset –Legal perspective

- Emerging legal perspective considers crypto assets to be property based on the following indicative attributes of property
- Can be defined or identified
- Exclusivity and control where the holder of a private key has exclusive control of the crypto asset
- Assignability crypto assets are capable of assumption by third parties and
- Certainty of crypto assets -similar to financial assets, which may exist only until they are cancelled, redeemed, repaid or exercised

Accounting for cryptocurrencies

Cash and cash equivalent (IAS 7) Consideration

- Cryptocurrencies may be classified as cash/currencies as they represent a medium of exchange
- Cryptocurrencies are not supported by a central bank (not centrally controlled and regulated) or recognised as legal tender in most jurisdictions
- Value of cryptocurrencies are highly volatility and risk as the leading factors behind their decision
- Therefore, Cryptocurrencies do not meet the definition of a cash equivalent since they do not have a short-term life and often have significant short-term value changes

Financial Assets (IFRS 9) Consideration

- Cryptocurrencies do not meet the definition of a financial instrument either because they do not represent cash, an equity interest in an entity, or a contract establishing a right or obligation to deliver or receive cash or another financial instrument
- A cryptocurrency is not a debt security, nor an equity security (although a digital asset could be in the form of an equity security) because it does not represent an ownership interest in an entity
- Certain contracts to buy or sell cryptocurrencies in the future (e.g., forward contracts or options) or other contracts that settle in cash based on movements in a particular cryptocurrency, may meet the definition of a derivative and be subject to financial-instruments accounting

Accounting for cryptocurrencies

Functional Currency (IAS 21) Consideration

- Cryptocurrencies may be classified as cash/currency because they represent a medium of exchange
- Cryptocurrencies do not give the holder a right to receive a fixed or determinable number of units of currency –not a non-monetary asset

Intangible asset (IAS 38) Consideration

- Cryptocurrencies are identifiable non-monetary assets without physical substance and satisfy the definition of an intangible asset
- Cryptocurrencies satisfy the definition of an intangible asset as they are identifiable and separable or arise from contractual or other legal rights

Inventory (IAS 2) Consideration

- Cryptocurrencies held for resale in the ordinary course of the business satisfy the definition of inventory

South Africa stance on Cryptocurrencies

Cryptocurrencies and Taxation

Cryptocurrencies stance timeline

South Africa Stance on Cryptocurrencies- Timeline

2014

- Initial announcement of government stance on cryptocurrencies
- Warned public about risks of using cryptocurrencies
- No legal protection or recourse offered to users and investors

2016

- Intergovernmental Fintech Working Group (IFWG)- NT+SARB+FSCA+FIC- was established
- Develop common understanding of Fintech developments and potential policy and regulatory implications
- IFWG to create enabling regulatory environment and considers risk and rewards for financial technology (Fintec) innovations

2018

- Crypto Assets Regulatory Working Group (CAR WG) established to review SA position on CA
- Formulate policy stance on Crypto Assets
- Ensure the integrity and efficient functioning of the financial markets and maintain financial stability

2019

- CAR WG released consultation paper to the public for inputs and comments
- Overview of risk and benefits of Crypto Assets
- Consider potential regulatory approaches for input for revised policy position

2020

- Position paper of Crypto Assets is released, with potential regulatory approaches
- Revised policy and regulatory position on crypto assets
- Stakeholders invited to give inputs about the position paper
- Further policy stance to be communicated once all inputs are considered

Cryptocurrencies and Taxation Framework

“On 22 May 2010, Laszlo Hanyecz bought two pizzas in Jacksonville, Florida, for 10,000 BTC. This was the first transaction made using bitcoin –and the value of this transaction is over 2 billion ZAR today, making those the most expensive pizzas in the world”

SARB issued a position paper (December 2014) on virtual currencies, in which it confirmed that the SARB has the sole right to issue legal tender and that decentralised convertible virtual currencies do not constitute legal tender in South Africa

Furthermore “any merchant or beneficiary may refuse [virtual currencies] as a means of payment”

Cryptocurrencies and Taxation Framework

Is Cryptocurrency a legal tender ? Can I buy property with cryptocurrency?

It is legally possible to buy immovable property using cryptocurrency as a means of payment

You can agree to pay using means other than physical money, as long as the Rand value attached to the property for transfer duty or VAT purposes, as well as for Capital Gains Tax (CGT)

The risk would be –getting paid! When using cryptocurrency you remove the usual means of securing the transaction, in that the money is held in trust by the transferring attorney pending transfer of the property

As cryptocurrency is not held in a bank or financial institution, a guarantee against such funds cannot be issued, and the cryptocurrency cannot be transferred to the attorney's trust account

Furthermore, if the buyer is a foreigner, that person will find it difficult on sale to prove that the funds used to buy the property was from a foreign source (as the funds were not transferred to a South African bank account).

Cryptocurrencies and Taxation Framework

Taxing Cryptocurrencies

“Gross income” as per section 1 of the Income Tax Act, reads together with the interpretation of case law, and SARS Interpretation Notes, must be considered

The core elements of gross income to consider are: *an amount in cash or otherwise; received by or accrued to the resident; and excluding receipts or accruals of a capital nature*

Cryptocurrencies are either considered as capital or income when it is received or accrued, and when disposed of

Typically, when use Bitcoin as an example, there are three distinct transactions throughout the Bitcoin-lifecycle:

- Acquisition of Bitcoins through mining
- Receipt of Bitcoins in exchange for goods or services (acquiring Bitcoins based on an underlying transaction or agreement)
- Exchange of Bitcoins for legal tender (disposal of Bitcoins for Rands or other currency)

Cryptocurrencies and Taxation Framework

In the SARS statement, issued 6 April 2018, the statement reflected:

“In South Africa, the word “currency” is not defined in the Income Tax Act (the Act). Cryptocurrencies are neither official South African tender nor widely used and accepted in South Africa as a medium of payment or exchange.

As such, cryptocurrencies are not regarded by SARS as a currency for income tax purposes or Capital Gains Tax (CGT). Instead, cryptocurrencies are regarded by SARS as assets of an intangible nature.”

“Whilst not constituting cash, cryptocurrencies can be valued to ascertain an amount received or accrued as envisaged in the definition of “gross income” in the Act.

Following normal income tax rules, income received or accrued from cryptocurrency transactions can be taxed on revenue account under “gross income”.”

“Determination of whether an accrual or receipt is revenue or capital in nature is tested under existing jurisprudence (of which there is no shortage).”

Cryptocurrencies and Taxation Framework

Value-Added Tax (VAT): amended the definition of “financial services” by including into section 2, with effect from 1 April 2019:

“the issue, acquisition, collection, buying or selling or transfer of ownership of any cryptocurrency:

Provided that the activities contemplated in paragraphs...(o) shall not be deemed to be financial services to the extent that the consideration payable in respect thereof is any fee, commission, merchant’s discount or similar charge, excluding any discount cost.”

As a result, dealings in crypto assets will generally be exempt from VAT in terms of section 12 of the VAT Act

Income Tax Act: the definition of “financial instrument” includes any cryptocurrency (TLAA 2018)

Also, section 20A, ring-fencing of assessed losses provision includes the acquisition or disposal of any cryptocurrency (TLAA 2018). This means that cryptocurrency dealers will not be able to offset the losses incurred from dealing in cryptocurrencies from any other trade

These losses are ring-fenced to be used only against income earned from similar cryptocurrency trade

International Regulatory Trends and Experiences

International regulatory trends and experiences

The European Parliament (EU) has recently debated the issues around crypto assets and related regulation, and in a recent report noted that:

- The key issue that needs to be addressed in the fight against money laundering, terrorist financing and tax evasion via cryptocurrencies, is the anonymity surrounding cryptocurrencies.
- The existing European legal framework is failing to deal with this issue, and the rapid developments around crypto assets could worsen related issues
- A number of key players in cryptocurrency markets are not included in the scope of the EU 5th Anti-Money Laundering Directive legal framework
- A mandatory registration and a pre-set date as of which it applies would be a better approach to unveil the anonymity of cryptocurrency users
- But even more appropriate is the international level, as crypto activity is not limited by the European border
- The fight against money laundering, terrorist financing and tax evasion should focus on the illicit use cases of cryptocurrencies and not on blockchain
- EU raised concern that cryptocurrencies are *risky and speculative*, and have an *exorbitant carbon footprint* and may have connections to *illicit* activities

International regulatory trends and experiences

Country	Regulatory framework status	Brief description
Algeria, Bolivia, Morocco, Nepal, Pakistan, and Vietnam	Completely banned cryptocurrencies	Completely banned all activities involving cryptocurrency in their jurisdictions.
Bangladesh, Iran, Thailand, Lithuania, Lesotho, China, and Colombia	Indirect restrictions of cryptocurrencies	While not directly banning cryptocurrency investment, they imposed indirect restriction by barring financial institutions with their borders, from facilitating transactions involving cryptocurrency.
Spain, Belarus, the Cayman, Islands, and Luxemburg	See potential in cryptocurrency	While not recognizing cryptocurrencies as legal tender, they see a potential in the technology behind crypto-asset and are developing a cryptocurrency-friendly regulatory regime as a means to attract investment in technology companies.
Marshall Islands, Venezuela, ECCB Member state and Lithuania	Developed own system of cryptocurrency	Some jurisdictions are seeking to go even further and develop their own system of cryptocurrencies

Matters for consideration and oversight

- The experiences both in the literature and in practice have shown that there can never be a wholly competitive and privately run monetary system that ensures stability in the financial system
- Cryptocurrencies are obviously benefiting from publicly dominated monetary and financial systems (including circumventing and avoiding regulation)
- Due to high volatility and continued valuation difficulties, and as the cryptocurrencies become widespread and mainstream, without regulation and oversight, this poses a risk to the stability of the financial system
- The continued use of cryptocurrencies for speculator purposes by institutional investors and used as collateral, could lead to financial system failures similar to those that led to the 2008 Global Financial Crisis, but USA and EU see limited risk
- Cryptocurrency transactions costs maybe understated due to sophistications in a transaction, e.g. it could cost \$3 to verify a Coffee costing \$6
- The government stance or regulatory framework on cryptocurrencies has to address macroeconomic implications, functioning of the monetary system, banking and finance as well as the stability of the system,
- USA legislature has earlier in the year introduced a Bill that proposes to regulate stablecoins cryptocurrency similar to the banks,

Thank You