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**TAXATION OF CRYPTOCURRENCIES IN AFRICAN COUNTRIES:
ASSESSING REGULATORY APPROACHES AND CHALLENGES**

Chaintum Research Working Paper

"Taxation of Cryptocurrencies in African Countries: Assessing Regulatory Approaches and Challenges"

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Abstract:

The taxation of cryptocurrencies, a growing phenomenon with rising adoption, presents complex issues for African countries. The struggle revolves around classifying these assets for taxation and grappling with definitional issues to ensure enforceability. The pressing problem is developing crypto asset tax regimes that support investment and usage without inhibiting innovation. This paper conducts a comparative analysis of regulatory approaches in Kenya, Nigeria, and South Africa to illuminate the substantial policy challenges within the crypto market in Africa. It explores the varied classification of crypto assets, global approaches, and associated challenges. The report highlights inadequacies and recommends progressive taxation systems by contrasting these African nations' taxing policies to worldwide regulatory standards. Conclusively, it suggests adapting and harmonising tax rules across Africa.

Keywords:	Cryptocurrencies, classification, capital gains tax, value added tax, income tax, Bitcoin, digital assets
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I. Introduction

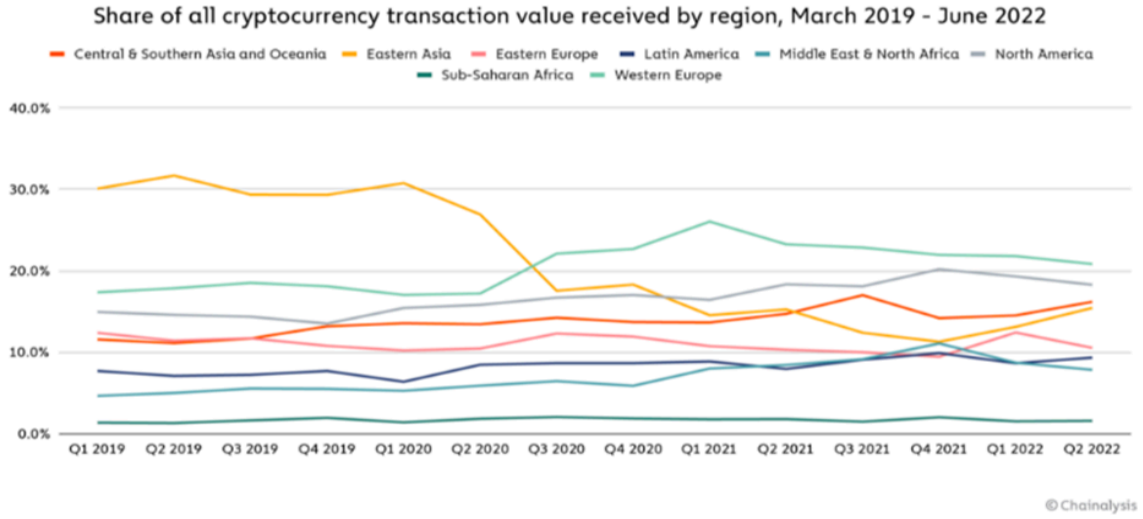
A. Background on Cryptocurrencies and Their Rising Popularity in African Countries

Cryptocurrencies have gained notable popularity in African countries, particularly in Sub-Saharan Africa. This region showcases well-developed cryptocurrency markets driven by factors such as the need for financial inclusion, economic challenges, currency volatility, and cross-border transactions. Young people in Sub-Saharan Africa turn to cryptocurrencies out of necessity, using them to preserve and build wealth in the face of low economic opportunity.^[2] The region's vibrant peer-to-peer (P2P) trading and retail market as shown in **Figure 1**,^[2] coupled with the integration of cryptocurrencies into everyday financial activities, ^[1]contribute to the growth.

As a result, a significant retail market has emerged in the region. Retail-sized transfers below USD 10,000 account for 6.4% of the transaction volume, surpassing any other region. The prominence of retail transactions is further emphasized by the fact that they make up 95% of all transfers. When focusing specifically on small retail transfers under \$1,000, their share rises to 80% as shown in **Figure 2**.^[2]

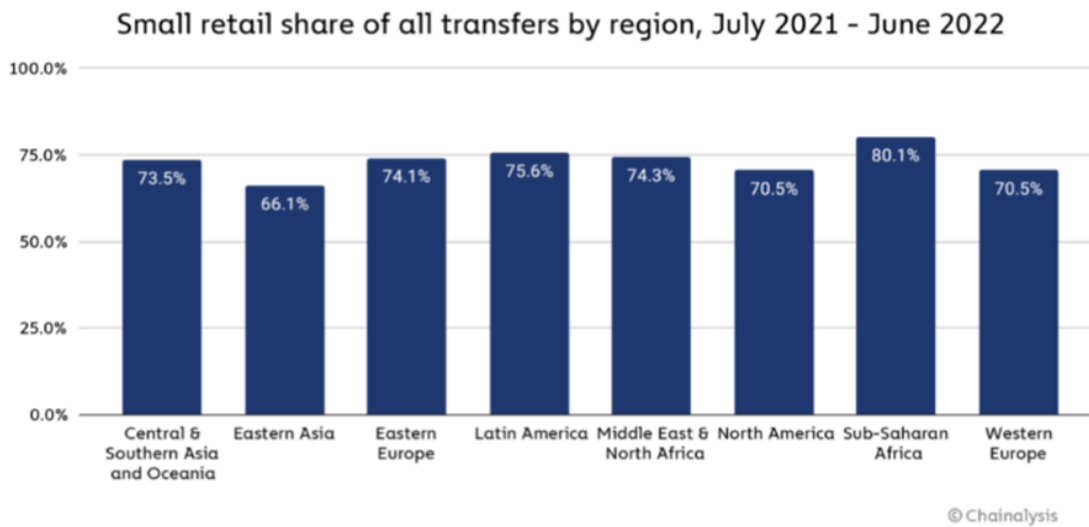
From an institutional trading perspective, the expansion of the cryptocurrency market has a significant impact on African firms, particularly in less competitive sectors. The energy, financial, industrial and consumer services segments are more vulnerable to losses, while real estate and information technology are less affected.^[3] This phenomenon shows that banning cryptocurrencies has proven ineffective in protecting domestic firms.

Figure 1: Cryptocurrency Transaction Value Worldwide



Source: Chainanalysis[2]

Figure 2: Cryptocurrency Retail Transfers Worldwide



Source: Chainanalysis[2]

Despite that, there is a positive correlation between the perceived ease of use and the perceived usefulness of cryptocurrencies in Africa. Individuals aim to use cryptocurrencies for online purchases, speculative trading, alternative currency and international money transfers. Transaction processing is seen as accessible and valuable for instant transfers, low costs, anonymity, and online purchases.[4] However, there are risks of security gaps and illegal activities, which reflects the need for extensive public education and awareness about cryptocurrencies

Furthermore, the rise of cryptocurrency, particularly bitcoin, has attracted attention and investment worldwide. The widespread acceptance is based on the expectations of bitcoin's continued dominance in the virtual currency market. Its benefits such as low transaction costs and international acceptability have also strongly influenced adoption.[5] However, lack of regulation has hindered penetration. This eventuality shows the need for laws to ensure data security, tax remission and consumer protection.

B. Need for Regulatory Frameworks to Address Taxation of Cryptocurrencies

Africa faces challenges in fast and secure payments, especially considering the large unbanked population and an increasing number of internet users.[6] Cryptocurrencies are a viable solution to this problem. Still, tax authorities need help keeping up as Bitcoin becomes more prevalent.[7] Due to the recent emergence of virtual currencies and widespread disinformation, taxpayers may be misled into believing that using them relieves them of tax and reporting duties.[8] The problem of tax evasion via cryptocurrencies will persist if legislative measures fail to address regulatory shortcomings due to their unique characteristics.[9]

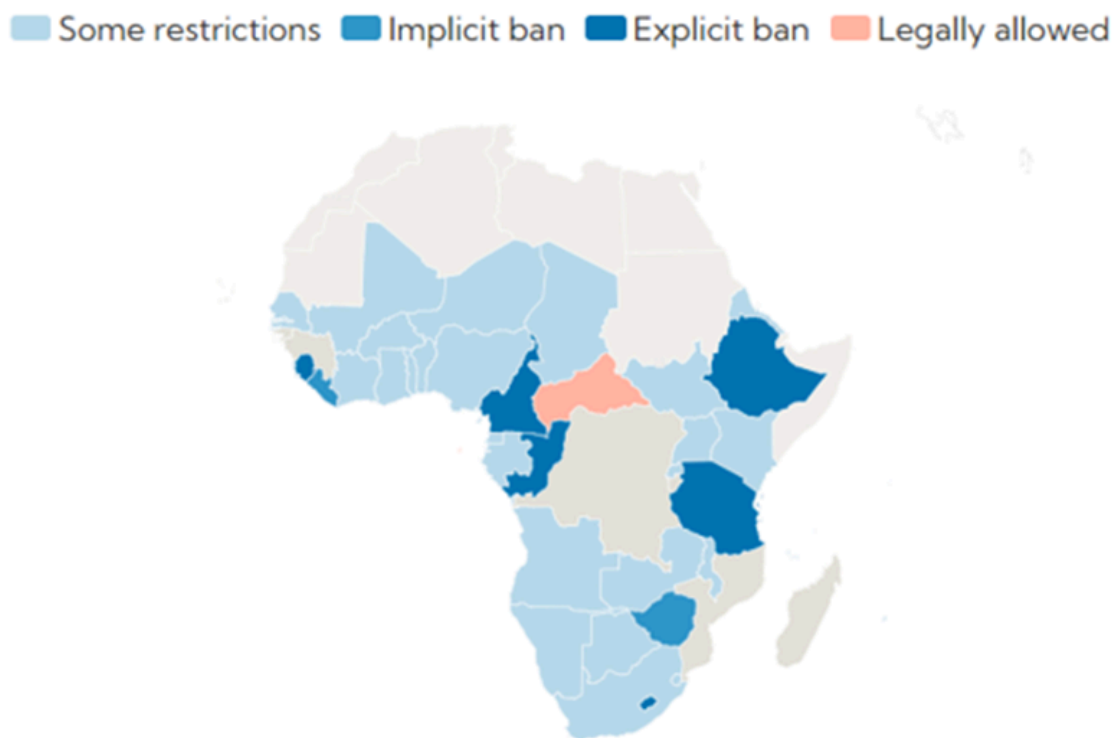
Based on IMF's crypto revenue potential, crude estimates imply a 20% crypto capital gains tax would have generated \$100 billion globally in 2021 despite price hikes. Notably, the worldwide corporate income tax revenue from crypto is 0.4% of overall tax collection. In normal circumstances and with the present market size, worldwide crypto tax collections would likely be around \$25 billion.[\[10\]](#) This is a potential source of tax revenue that African governments must not overlook.

Noteworthy, cryptocurrency has gained popularity as a decentralized digital payment system. While some jurisdictions classify cryptocurrencies as taxable assets, governments have generally been apprehensive about them. The coexistence of fiat currency and cryptocurrency is necessary, allowing them to benefit from both centralized and decentralized currency systems.[\[11\]](#) The economic advantages of cryptocurrencies include facilitating local and cross-border payments, providing opportunities for the unbanked, low transaction costs, increased transaction transparency and empowerment of entrepreneurs. Thus, incorporating cryptocurrency into financial systems can stimulate economic growth.[\[12\]](#) South Africa, for example, considers cryptocurrencies as a source of tax revenue and requires taxpayers to declare cryptocurrency gains as part of their taxable income.[\[10\]](#)

The crypto market in Africa has also experienced significant growth, but it also faces inherent risks that necessitate the implementation of better regulations. The recent collapse of major exchanges and subsequent price volatility of cryptocurrencies have sparked renewed calls for increased consumer protection and regulatory oversight.[\[13\]](#) Though an incremental move in the right way, regulatory advancements have been segmented and do not address cryptocurrency concerns like digital asset loss and fraud compensatory measures.[\[14\]](#) While only a quarter of sub-Saharan African countries have formal regulations in place, two-thirds have implemented certain restrictions and six countries have outright banned

cryptocurrencies.[\[15\]](#) Notwithstanding the regulatory position taken, concerns regarding illegal fund transfers, circumvention of capital outflow regulations and the potential impact on monetary policy and financial stability prompt a closer look at them.

Figure 3: Cryptocurrency Restrictions and Bans in Sub-Saharan Africa



Source: IMF[\[16\]](#)

In this aspect, taxation of cryptocurrencies in Africa varies across countries as shown in **Figure 3**. Globally, emerging laws commonly treat these assets as property for income tax purposes and also subject them to capital gains tax laws. However, there are likely to be variations in exemptions and holding periods.[\[16\]](#) Besides, value added tax (VAT) and sales taxation is another potential approach for consideration. The regulatory landscape is evolving and the

pioneer taxation frameworks developed in countries like Kenya, Nigeria and South Africa will likely shape the regulatory environment and tax treatment in the region.

C. Objective of the Working Paper

The objectives of the study are to:

1. Examine the existing regulatory approaches to cryptocurrency taxation in African countries.
2. Assess the challenges faced in implementing effective tax frameworks.
3. Explore classification approaches for cryptocurrencies and their application in income tax, capital gains tax and value-added tax taxation frameworks.
4. Analyse specific tax regimes in Kenya, Nigeria and South Africa, conduct a comparative analysis and provide policy recommendations.

Overall, the paper aims to enhance understanding of cryptocurrency taxation in Africa, offer insights for policymakers, and contribute to the development of sustainable tax frameworks that balance revenue generation and support cryptocurrency innovation.

II. Overview of Taxation Approaches for Cryptocurrencies

A. Classification of Cryptocurrencies as Property

The general acceptance of crypto assets is that they are property but this is just the starting point. Traditional rules of money, developed in the context of tangible property, can also apply to crypto assets. However, there is a need to address two foundational questions: the subject matter of the property right in crypto assets and the proprietary effect of blockchain

transactions.[\[17\]](#) Establishing clarity on the former is essential for legal frameworks, ensuring equitable ownership and transfer. Simultaneously, understanding the latter is crucial for recognizing the impact on traditional notions of ownership and examining the specific characteristics of crypto assets[\[18\]](#). The differential features include their transactional abilities, data-centric formulations, registry entries and transfer capabilities.

In the case of *Ruscoe v Cryptopia Ltd (in Liquidation)* [2020] NZHC 728, the New Zealand High Court established that cryptocurrencies are a form of property that can be held in trust. The court concluded that cryptocurrencies meet the criteria for property as defined by Lord Wilberforce, as they are identifiable, capable of assumption by third parties and possess a degree of permanence. The distinction between pure information and digital assets was emphasised. Hence, cryptocurrencies are tradeable items with unique characteristics, protected by private keys and not infinitely duplicable like pure information. This recognition of cryptocurrencies as property has significant implications for various legal areas. It applies existing principles and rules governing property rights and opens avenues for the protection and commercialisation of other digital assets and forms of data.[\[19\]](#)

B. Classification as a Medium of Exchange

Cryptocurrencies can function as a medium of exchange. They can be used to facilitate transactions and are accepted as a form of payment by specific merchants and service providers. These digital assets, like traditional money, can be traded off with other forms of money, such as fiat currencies and can be credited or debited from accounts.[\[20\]](#) However, they are sometimes considered distinct from cash for tax reasons since the resulting commercial activities are considered barter transactions.[\[21\]](#) The classification of cryptocurrencies goes beyond just being a currency. They can also be assorted as coins, utility tokens, security tokens or asset tokens, depending on their specific function and characteristics. The dominant

categorisation as medium of exchange is because cryptocurrencies can serve as a medium of exchange and possess the qualities necessary to be used in financial operations and as a store of value.

C. Equating to Gambling

Cryptocurrency resembles gambling due to the similarities to speculative trading and betting activities. Research has shown that individuals who are attracted to gambling are more likely to engage in higher-risk speculation, such as cryptocurrency trading.[\[22\]](#) The characteristics of cryptocurrency trading (such as making decisions based on limited information, pursuing short-term gains, focusing on price movements and experiencing highly volatile and uncertain outcomes) align closely with those of gambling. Plus, individuals who participate in both gambling and cryptocurrency trading are more likely to exhibit addictive behaviours.[\[23\]](#) The assumption is that most crypto assets should be treated as investment and speculative assets.[\[24\]](#) Such an approach violates neutrality and hinders the commercial potential of cryptocurrencies.

III. Common Approach: Treating Crypto as Property for Capital Gains Tax

Treating cryptocurrencies as property for capital gains tax purposes is a common approach adopted by many tax jurisdictions. Capital gains tax is levied on profits obtained from the sale of a capital asset. This classification implies that the buying, selling and exchanging of cryptocurrencies are subject to this taxation. If you sell a cryptocurrency for more than the initial investment, you will have made a capital gain.[\[25\]](#) The approach is similar to the taxation of traditional assets such as shares, real estate or bonds. Thus, individuals should report any profits or losses incurred from cryptocurrency transactions and pay taxes accordingly.[\[26\]](#) For example, Malaysia, Singapore and some European nations exclude capital

gains from financial assets after a short holding term.[\[27\]](#) Again, Portugal has exempted profits on crypto holdings, but only for over one year, in an effort to be crypto-friendly.[\[28\]](#)

This tax treatment varies by nation since it depends on the scope of digital currencies within that country and how they fit under current tax regulations for different revenue streams. Only few jurisdictions recognise cryptocurrencies as foreign or local cash for tax enforceability.[\[29\]](#) Decentralisation, lack of support, price volatility, and limited usage as a medium of trade are common reasons for this phenomenon. Nonetheless, some countries have declared them as property for income tax reasons as indicated in **Figure 4**.[\[30\]](#)

Figure 4: Examples of Virtual Currency Definitions for Tax Reasons

Intangible assets other than good will	Financial instrument or asset	Commodity or virtual commodity	Currency	Legal payment method	Not specified
Australia, France, Chile, Czech Republic, Luxembourg, Nigeria, Spain, Sweden Switzerland** and the United Kingdom	Argentina,* Brazil, Croatia, Denmark, Israel, Japan, Slovak Republic and South Africa	Austria, Canada, China and Indonesia	Belgium, Cote d'Ivoire, Italy and Poland	Japan	United States

Source: Questionnaire responses and country guidance documents.

* Note from Argentina: There is no clear definition. However, for income tax purposes, virtual currencies are mentioned along with some financial instruments or assets.

** Note from Switzerland: With the exception of companies that trade in virtual currencies. Those companies account for virtual currencies under inventories.

Source: OECD[\[30\]](#)

In the United Kingdom (UK) and the United States (US), capital gains tax on cryptocurrency investments makes sense, but elsewhere it may not. UK capital gains tax limits are roughly £12,000, which most private crypto investors in other nations do not surpass. Not all governments follow the US and UK taxation approach. In this respect, Switzerland, Hong Kong, German and the Netherlands have developed different crypto sales tax regulations, as do Japan and New Zealand, that employ income tax.[\[31\]](#)

Noteworthy, an Internal Revenue Service (IRS) de minimis election for small crypto profits and losses is offered as a realistic way to handle cryptocurrencies' unique qualities, notably during taxation. The de minimis election under IRC Section 988(e) exempts transactions under \$200. Assuming taxpayers cannot record and disclose small earnings from cryptocurrency transactions like foreign currency exchanges, the rule is applied. Similar allowances have been implemented in the UK and Australia; for instance, a £11,700 de minimis in the UK. This proposal seeks to improve the tax code's feasibility and flexibility in recognising immaterial gains from cryptocurrency transactions.[\[32\]](#)

From an institutional standpoint, the accounting treatments of cryptocurrencies are commonly inventories or intangible assets. This poses challenges in accurately representing their unique nature. They can distort companies' earnings and asset values if measured at historical costs.³³ This phenomenon impacts taxation as accounting principles influence tax regulations. Hong Kong's previous adherence to the "tax follows accounting" principle exemplifies this issue.[\[33\]](#) Challenges are likely to arise in determining the fair market value of cryptocurrencies at the time of each transaction.

A. Special Case: Cryptocurrency Tax Regime in India and its Unique Approach

In India, although cryptocurrency policies are unclear, they are taxed. As a result, an Indian taxation occurs on income that meets either (i) the residence conditions or (ii) the source rule based on Income-tax Act, 1961, Section 9 [\[34\]](#). Income-tax Act, 1961, sub-section (2) of Section 24 defines income as 'earnings and gains from business or profession,' 'capital gains' and 'income from other sources [\[35\]](#). The Supreme Court's broad definition of income includes cryptocurrency revenues [\[36\]](#). Initially, cryptocurrency profits were formerly classified as "capital gains," but this changed when the Finance Minister's 2022-23 Budget made

amendments to define them as "virtual digital assets" (VDAs). This definition, which includes cryptographic tokens and NFTs, changed India's cryptocurrency tax status.[\[37\]](#)

Thus, the government has developed a tax framework that taxes profits and revenue from trading in VDAs at 30%, plus a 2% equalisation fee on non-resident blockchain owners supporting NFT trade. The Act also authorises a 1% income tax deduction at source when a citizen sells a VDA for consideration. This phenomenon applies to NFT trading blockchain entities.[\[38\]](#)

Therefore, VDAs are taxed on receipt and transfer. The whole fair market value of a VDA received without compensation and over INR 50,000 is taxable income. If the consideration is less than fair market value, the difference is taxed. Due to the volatility of NFTs and cryptocurrencies and the need for precise guidance under the Income Tax Rules, 1962, assessing fair market value and profits is challenging.[\[39\]](#) Another issue is that losses are not compensated alongside minimal exemptions, which discourages VDA investments.

Noteworthy, investors must record their purchases and sales or transfers (sale dates, basis, amount, cost, and selling price) to comply with Indian crypto tax rules.[\[40\]](#) Individuals should also keep records of airdrops and other activities over the preceding five years.[\[41\]](#) To aid the government monitor these transactions, top Indian exchanges keep and disclose investor activities.

IV. Value Added Tax (VAT) and Sales Taxation for Cryptocurrencies

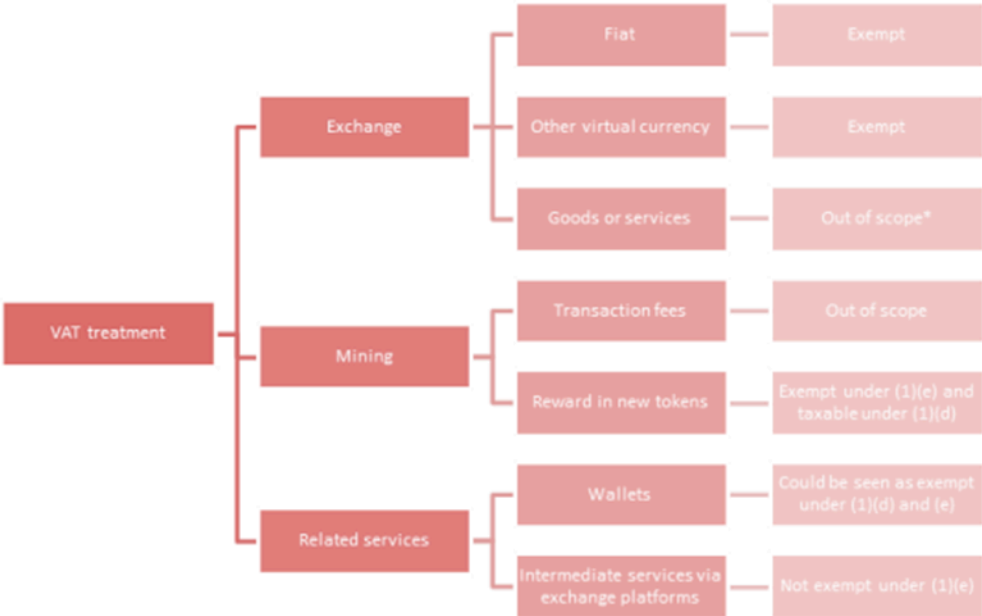
Profits from crypto sales are taxed like other assets.[\[9\]](#) Every time a product is added value, from manufacture to sale, VAT is collected.[\[42\]](#) Similarly, if cryptocurrency is considered as inventory (occurs when an organization maintains crypto for sale in the usual course of

business), the sale or exchange should be liable to VAT if the threshold is met.[\[43\]](#) . This approach aligns with the prevalent consumption tax paradigm, with VAT (or similar) as the default model for financial services.[\[44\]](#)

Most EU nations exclude virtual currencies from VAT, whether traded for legal cash or other virtual currencies. The Hedqvist judicial decision altered VAT treatment by stating that VAT transactions should be exempt from value-added tax (VAT) as they constitute a supply of services closely related to currency transactions, which are VAT exempt under EU law. [\[45\]](#)

The judgement emphasised that virtual currencies are non-traditional payment methods. As a result, the members exclude virtual asset exchange services, except the exchanges themselves, from VAT. Nevertheless, there are certain exceptions, such as in Italy, wherein mining incentives are subject to VAT.³⁴ The OECD emphasises record-keeping and tax enrollment for individuals and small merchants to address VAT implementation issues.[\[46\]](#)

Figure 5: VAT handling of virtual currency in EU Member States



Source: OECD

However, some non-EU countries charge VAT on crypto assets and related activities. For instance, VAT only applies to products and services, not virtual currency mining and exchanges in the UK. Exchange platforms are also excluded as with other financial services. Again, Norway exempts mining incentives and virtual currency usage and exchange from VAT as financial service exemptions. Crypto-based purchases are also VAT-exempt since they are considered payment instead of barter.[\[47\]](#) Nonetheless, mining-related computer power sales are not excluded. Lastly, Switzerland exempts cryptocurrency exchanges from VAT when traded for other virtual currencies or fiat money. But, trading crypto for products or services incur VAT solely on the given goods or services, not barter.[\[24\]](#)

Notably, Irish Revenue recommended that VAT treatment for Bitcoin-paid products and services should match common VAT practices.[\[48\]](#) In this case, the cryptocurrency's euro equivalent at transaction time should be the taxed amount. But Bitcoin's decentralisation and exchange market volatility make it difficult to choose the most relevant exchange market. The digital currency has no central authority or foreign exchange reference rate, unlike conventional currencies. Thus, the Irish Revenue suggests using an appropriate value for cryptocurrencies as there is no one "exchange rate" for them.

A. Countries with Explicit VAT Exemption for Cryptocurrency Transactions

Outside Europe, Australia and Japan exclude crypto purchases using fiat money from VAT. This acknowledges the evolving nature of digital currencies and fosters a favourable environment for their adoption. [\[13\]](#) The move signals a recognition of cryptocurrencies as a legitimate form of payment, potentially encouraging their mainstream use. The policy approach removes barriers for individuals and businesses to engage in cryptocurrency

transactions. As a result, it stimulates innovation and economic activity within the cryptocurrency space.

For example, Australia's Goods and Services Tax (GST) model offers crucial insights into the treatment of crypto for VAT.[\[49\]](#) Firstly, the introduction of a legal definition for cryptocurrencies in the VAT Act, specifying what falls outside this definition, is crucial. This definition denotes the digital representations of value used as consideration for a supply. Secondly, the reference to cryptocurrencies under "financial services" should be discarded. Hence, transactions involving the sale and purchase of cryptocurrencies should be VAT-exempt [\[16\]](#). However, if a vendor accepts cryptocurrencies as payment for goods or services, that transaction should be treated as a taxable supply, incurring VAT liability. Besides, the vendor must convert the cryptocurrency equivalent into local currency for tax purposes. Additionally, cross-border supplies of cryptocurrencies to residents should be VAT-exempt. [\[49\]](#) In this case, tax authorities should provide clear administrative guidelines outlining the VAT treatment of cryptocurrencies for taxpayers [\[30\]](#). This includes the necessary information on tax invoices.

Notably, virtual currencies like bitcoin act as an alternate payment method. Thus, VAT standards should treat bitcoin transactions like any other payment system. The taxable amount depends on exchange rates accessible online. Conversely, when exchanging bitcoins for regular currencies, the value should stay outside the VAT scope. Besides, commissions from exchange transactions should be considered as payment for an exempt financial service. Hence, bitcoin mining and validation are not subject to VAT.[\[50\]](#)

B. Challenges in Applying VAT to Cryptocurrencies and Treatment of Fees and Miners' Income

The fundamental concept applies to VAT treatment of fees and miner incentives. According to the European (EU) Court of Justice, the VAT treatment of bitcoin mining depends on its classification as a service for VAT purposes. Creating new bitcoins through mining can be considered a service under the broad VAT definition.⁴¹ Even so, the issue for bitcoin miners is that they are unable to register for VAT since they are not considered to be engaged in economic activity.[\[51\]](#) The crucial factor is whether this supply is taxable. This is further supported by the absence of a clear consumer for the proceeds of bitcoin mining. Thus, the identification of a recipient for establishing a reciprocal legal relationship is unrealistic. The HM Revenue & Customs (HMRC) clarifies that mining revenue is classified as trading revenue if the activity is in the form of a trade. Otherwise, the revenue is classified as miscellaneous.[\[52\]](#) Again, a VAT payer cannot deduct VAT on mining inputs like technical equipment or electrical use. [\[53\]](#)

On the other hand, VAT can be applied to the fees and commissions. However, this might pose a problem for some cryptocurrency systems where fees are paid using newly produced coins generated automatically by the systems.[\[54\]](#)

VAT-based taxation raises issues pertaining to registration, location of supply, value of supply, time of supply and other considerations. In this case, revenue turnover requirements, cryptocurrency-to-local currency conversion rates and value dates are difficult to determine. Most crypto-asset sales are pseudonymous, suggesting that users use private keys or do not reveal contact information. This makes VAT treatment of crypto assets difficult. Since companies do not collect and keep geolocation indicators for VAT administration (e.g., IP address, billing address, bank data), establishing user locations in most digital asset transactions takes much work.[\[55\]](#) Hence, there is a need to specify the IP of the starting computer as the point of supply for crypto transactions.[\[56\]](#) On top of that, the new owner should evaluate the

time when the coin appears in their account. Establishing supply value also requires completing invoice standards, establishing exchange rates and managing debit and credit notes. Even without the pseudonymous aspect, determining the VAT treatment is challenging due to the multiple parties, consideration and classification of a transaction as an exchange of goods, service or intangible.

Without proper legislation, cross-border transactions result in different VAT systems alongside the pressing need for Double Tax Agreements.

Additionally, crypto exchange platforms are likely to be treated as undeclared agents under VAT legislation even though they link buyers and sellers and determine their transactional conditions.^[57] Therefore, it is imperative that they should collect and return VAT on aided sales. Subsequently, the kind of crypto asset can determine the VAT exemption for particular crypto sales. For example, security tokens can benefit from financial instrument exemptions and utility tokens' tax implications depend on VAT clarity at sale. Unfortunately, although there is no formal guideline, NFTs are often regarded as not exempt.³⁷

Regarding VAT treatment for Bitcoin or cryptocurrency transactions, the Court of Justice of the European Union (CJEU) argued that legal tenders represent a state's sovereignty and should be treated as pure payment methods.^[58] If cryptocurrencies are considered legitimate tenders for VAT purposes, they will be readily recognised as legal currency. However, cryptocurrencies are not regulated by any public agency, and their governance may seem transparent but needs independent checks and balances.

There is an ongoing need for clarity and harmonisation in international tax regulations. Governments must adopt a consistent and transparent framework. The outcome will benefit businesses and users participating in cryptocurrency transactions across borders.

Unfortunately, the desire for a single, straightforward, and uniform VAT position for crypto assets is unattainable. VATs are consumption taxes. Crypto assets have several legal forms, rights, and transactions;[\[59\]](#) therefore, expecting a single VAT treatment overlooks this.

While that is the case, the term 'cryptocurrency', applied to the VAT definition, implies a restricted scope aimed at avoiding double taxation whenever used as a means of exchange.[\[60\]](#) Both tax agencies and taxpayers face a border tax problem with cryptocurrency.[\[61\]](#) Thus, tax authorities must educate taxpayers on their duties and rights.

V. Kenya's Taxation of Cryptocurrencies

A. Kenya's Definition of Digital Assets and Cryptocurrencies

a. Background

Kenya does not classify cryptocurrencies as a legal tender, alluding to the (Central Bank of Kenya) CBK's warning of 2015. The existing law does not clearly define cryptocurrency as an asset. Notably, the Capital Markets Act (CM Act) categorises shares, debt instruments and other options for securities regulation. However, the CMA has not yet designated cryptocurrencies as securities, leaving their regulatory position in Kenya uncertain.[\[62\]](#)

b. Digital Service Tax

Recently, Kenyan lawmakers amended the Income Tax Act in November 2019. These revisions created the "digital service tax." Thus, the Kenya Revenue Authority (KRA) would levy digital service tax on crypto transactions. These revisions were to take effect on January 1, 2021. The law defines "*digital markets*" as venues for "the direct interaction between buyers and sellers of goods and services through electronic means." The KRA also includes crypto platforms such

as Binance in its broad definition of “digital marketplaces.”[\[63\]](#) The DST will be 1.5% of total transaction value. Local-based digital service providers must file a DST return and pay the tax prior to the 20th day of the next month.[\[64\]](#) Lastly, domestic and foreign cryptocurrency companies in Kenya must pay digital service taxes to KRA special agents.

B. Initial DAT Proposal (Finance Bill, 2023): Taxing Transaction Fees on Crypto Exchanges

Digital Asset Tax applied to earnings from digital asset transfers or exchanges, despite a Central Bank of Kenya earlier directive prohibiting financial institutions from trading cryptocurrencies.

The proposal summary is outlined in **Table 1**.

C. Latest DAT Tax

On 28th April, 2023, Kenya declared its intention to tax cryptocurrencies and other digital assets. The Finance Bill 2023 introduced the Digital Asset Tax (DAT) to the Kenyan parliament on May 4, which would tax “income derived from the transfer or exchange of digital assets,” including NFTs.[\[65\]](#)

The new law passed on 26th June defines “*digital assets*” as “anything of value that is not tangible and cryptocurrencies, token code, number held in digital form and generated through cryptographic means or otherwise, by whatever name called, providing a digital representation of value exchanged with or without consideration that can be transferred, stored or exchanged electronically; and a non-fungible token (NFTs) or any other token of similar nature, by whatever name called.”[\[67\]](#) Currently, the Kenya Revenue Authority (KRA) aims to withhold 3% from residents’ crypto asset sales proceeds in the newest declaration.[\[66\]](#) Taxation of

cryptocurrencies will be done directly through crypto exchanges such as Binance. Crypto exchanges and those that transfer crypto or NFTs must collect the tax and pay the government 3% of the transfer value as indicated in **Table 3**.

D. Capital Markets (Amendment) Bill 2023

The bill proposes incorporating digital currencies to the definition of securities under the Act. Cryptocurrency is defined as a digital currency that uses a decentralized mechanism to verify and maintain records of transactions. Besides, launching a new cryptocurrency product requires a Capital Markets Authority license, two years of development, and a 10,000-client test. It also mandates a centralized electronic registry for digital currency transactions. Lastly, the legislation requires digital currency traders to record dealings, pay taxes on gains, and report virtual currency volume, types, purchase and sell dates, transaction proceeds, expenditures, and gains or losses to the Kenya Revenue Authority.[\[68\]](#)

Table 1: Report on Consideration of the Finance Bill (National Assembly Bill No.14, 2023) Characteristics and Implications in Kenya

Clause	Major Changes	Characteristics of the Proposal	Implications
Clause 10 & 24(b)	Deletion of Clauses	Opposition to double taxation and imposition on gross fair market value. Extension of remittance days for WHT.	Potential double taxation concerns, addressing stakeholder issues on remittance timing.
Clause 10	Deletion of Clause	Critique of DAT as a gross turnover tax and its potential unconstitutionality. Disagreement on daily gains assumption.	Perception of DAT as anticipatory tax, potential unfairness to digital asset traders
Clause 10	Deletion of Clause	Absence of a legal framework for digital assets, call for proper regulation before taxation. Concerns about double taxation with corporate tax.	Recognition of the need for regulatory framework before implementing DAT.
Clause 10(4) featuring Blockchain Association of Kenya (BAK)	Deletion of Clause	Opposition to remitting tax within 24 hours due to administrative impracticality. Suggested amendment to 5 working days.	Concerns about administrative burden, proposed adjustment for practicality.
Clause 10(1) featuring Binance	Deletion of Clause	Association with Central Bank warning on cryptocurrencies. Criticism of potential double taxation and penalization of digital asset holders.	Perceived challenges in implementing DAT, potential industry stifling.
Binance	Rejection of Stakeholder's Proposal	Opposition to proposed clause, citing impracticality and potential double taxation.	Disagreement with Binance's concerns, rejection of stakeholder proposal
Blockchain Association of Kenya (BAK)	Deletion of Clause	Opposition to remitting tax within 24 hours due to administrative impracticality. Call for lifting bans on cryptocurrency trades for better KRA access.	Emphasis on administrative challenges, proposal for easier access to trade information.
Clause 10	Deletion of Clause	Critique of DAT taxing turnover instead of gains, and administrative burdens. Proposed amendment to remit tax in 5 working days.	Concerns about disincentivizing digital asset trading, proposed adjustment for compliance ease.

Source: Republic of Kenya^[70]

Table 2: Alignment and Misalignment Between Common Income Taxation and Kenya’s Initial DAT Proposal

Alignment	Income Taxation	Initial DAT Proposal: Taxing Transaction Fees on Crypto Exchanges
Alignment		
Property Classification	Cryptocurrencies discussed as property for income tax purposes, subject to capital gains tax.	DAT proposal focuses on taxing earnings from digital asset transfers or exchanges, implying property status.
Capital Gains Tax	Recognition of the importance of capital gains tax in the context of cryptocurrencies.	DAT proposal aligns by targeting gains from digital asset transfers, indicating the application of capital gains tax.
Taxing Gains and Income	Discussion of the treatment of gains as ordinary income or capital gains.	DAT proposal focuses on taxing gains and income from digital asset transfers.
Misalignment		
Transaction Fees vs. Gains and Income	Income Taxation focuses on taxation of gains and income.	DAT proposal specifically targets transaction fees on crypto exchanges, diverging in the scope of taxation.
Treatment of Small Users	Income Taxation focuses on taxation of gains and income.	Focuses on transaction fees, may not directly address challenges faced by small users in routine transactions.
Legal Framework and Regulation	Emphasizes importance of legal framework and proper regulation before taxation.	While addressing transaction fees, does not explicitly discuss the broader legal and regulatory frame

Table 3: Kenya’s Latest DAT Proposal’s Major Changes, Characteristics and Implications

Aspect	Digital Asset Tax (DAT) Proposal
Major Changes	<ul style="list-style-type: none"> • Introduction of a new section, 12F, in the Income Tax Act specifically addressing Digital Asset Tax (DAT). • Imposition of a 3% tax on the transfer or exchange value of digital assets.
Characteristics of the Proposal	<ul style="list-style-type: none"> • DAT is introduced as a tax payable on income derived from the transfer or exchange of digital assets. • Obligation for platform owners or facilitators to deduct DAT and remit it to the Commissioner. • Registration requirement for non-resident persons owning platforms where digital assets is exchanged or transferred. • A five working days window for remittance of the deducted DAT amount to the Commissioner, along with necessary information. • Broad definition of “digital asset,” including intangible items like cryptocurrencies and non-fungible tokens (NFTs).
Implications	<ul style="list-style-type: none"> • Introduction of a dedicated tax regime for digital assets, recognizing their distinct nature. • Shift towards taxing income from the transfer or exchange of digital assets, addressing potential gaps in existing tax laws. • Imposition of a three percent tax rate on the transfer or exchange value of digital assets, impacting the overall cost. • Compliance requirements for platform owners and non-resident persons to register and remit DAT. • Inclusion of a broad definition for “digital asset,” encompassing various forms of intangible assets.

Source: Republic of Kenya [\[69\]](#)

Table 4: Kenya’s Latest DAT Proposal’s Alignment with the Need for Treating Cryptocurrencies as Property for Capital Gains Tax

Aspect	Treating Cryptocurrencies as Property for Capital Gains Tax	Kenya's Latest Plan (3% Tax)
Recognition of Digital Assets as Taxable	Both approaches recognize digital assets (cryptocurrencies) as taxable entities.	Both approaches recognize digital assets (cryptocurrencies) as taxable entities.
Shift towards Income Taxation	Both approaches represent a shift towards taxing income from the transfer or exchange of digital assets.	Kenya's plan specifically introduces a three percent tax on the transfer or exchange value of digital assets, representing a shift towards taxing income.
Compliance Requirements	Both approaches involve compliance requirements for reporting gains or losses.	Kenya's plan includes specific compliance requirements for platform owners and non-resident persons to register and remit the Digital Asset Tax (DAT).
Tax Rate and Specificity	The general approach involves varying capital gains tax rates.	Kenya's plan proposes a fixed three percent tax rate on the transfer or exchange value of digital assets.
Obligation for Platform Owners	In the general approach, tax obligations usually fall on individuals realizing capital gains.	Kenya's plan imposes an obligation for platform owners to deduct DAT and remit it to the Commissioner.
Timing of Remittance	Taxes on capital gains are typically paid according to regular tax filing schedules.	Kenya's plan requires platform owners to remit the deducted DAT amount within a five working days window.

Table 5: Comparison of Kenya with Other Countries with Similar Tax Approaches

Country	Taxation Approach	Long-Term Gains (Zero Tax Rate)	Tax-Free Short-Term Gains	Additional Considerations
Germany	Differentiates between short- and long-term gains. After 12 months, the rate is 0%. Allows up to 600 euros of tax-free short-term gains per year.	0% after 12 months.	Up to 600 euros per year.	Tax treatment favorable for crypto traders.
Croatia	Differentiates between short- and long-term gains. After 24 months, the rate is 0%. No tax on crypto-to-crypto swaps.	0% after 24 months.	Possible to pay no tax even without holding the original asset for a year.	N/A
India	Taxes crypto gains at 30%. Imposes a 1% TDS on each trade. Losses cannot be deducted from gains.	30% tax rate.	1% TDS on each trade. Losses not tax-deductible. Crypto trading community moving to decentralized apps.	N/A
Indonesia	Imposes a 0.11%–0.22% VAT on all crypto transactions.	N/A	N/A	VAT for tracking crypto transactions.
Estonia	Restricts the deduction of losses. Taxed against gains, but losses are not tax-deductible.	N/A	N/A	Active lobbying effort to change loss deduction restriction.

Source: CoinTelegraph^[71]

E. Potential Tax Enforcement Methods and Comparison to Internal Revenue Services (IRS) Practices in the US

a. IRS Definition of Digital Assets

Digital assets are any digital representation of value stored on a cryptographically protected distributed ledger or equivalent technology. Convertible digital currency, cryptocurrencies, stablecoins, and NFTs fall here. Digital assets are not "fiat" like actual coins and paper money issued by a government's central bank. They are electronic and not issued by the government. Specifically, "*convertible virtual currency*" is a digital asset that substitutes actual money. Like

cryptocurrency, they allow digital transactions, payments for products and services and exchanges with actual currencies or other digital assets.[\[72\]](#)

b. Tax Implications of Digital Assets

Digital asset transactions must be disclosed on taxes. Transactions that generate taxable income, gain, or loss include: [\[73\]](#)

- § Selling digital assets for cash
- § Exchange of digital assets for products, services, or property
- § Digital asset exchange or trade
- § Digital assets as payment for products or services
- § Digital asset received after a hard fork
- § Acquisition of a digital asset via mining or staking
- § Digital asset receipt from an airdrop
- § Any other digital asset financial disposition

Table 6: Summary of IRS Crypto Regulation Guidelines based on Notice 2014-21

Taxation Aspect	Description
Virtual Currency Treatment	For federal income tax purposes, virtual currency is treated as property, and its fair market value must be included in gross income. Gain or loss is recognized if received in excess of adjusted basis. Basis is the fair market value at the date of receipt.
Mining Activities Taxation	Miners realize gross income at fair market value upon receipt, with self-employment taxes applicable if mining is a trade or business. Wash sales rule application to cryptocurrencies is uncertain.
Straddle Rules Under §1092	Applicability to cryptocurrencies is possible, offering planning opportunities by deferring recognition of losses and modifying holding periods.
Accounting Methods	Taxpayers can choose FIFO, LIFO, or Specific Identification for computing gains and losses. Documentation of cryptocurrency transactions is essential.
Like-Kind Exchanges	Before TCJA, §1031 treatment was available for virtual currency exchanges. Post-TCJA, only real property exchanges qualify.
Tracking Capital Gains and Losses	Valuation in U.S. dollars as of the date of receipt is required. Challenges include the lack of guidance for tokens not listed on an exchange.
Valuation of Cryptocurrencies	IRS treats virtual currency as property, but valuation issues persist. No robust guidance for transfer in charitable donations.
Taxation of ICOs	Tax treatment of ICOs remains unclear, depending on the issuer's location and structure of the token. IRS views convertible virtual currency as property.
Loss of Private Key or Password	Loss of the private key/password, leading to the loss of virtual currency, poses challenges. Deductions for casualty losses under §165 may not apply.
Tax Implications in Case of Theft	Theft of virtual currency lacks specific IRS guidance. Deductions for theft losses under §165 may be subject to uncertainty.
Litigation and Enforcement	Lack of IRS guidance on tax consequences related to funds, trading, investing, and mining of cryptocurrencies. The Coinbase Summons serves as an enforcement initiative for unreported gains.

Source: Bloomberg Tax & Accounting [\[73\]](#)

c. Revenue Ruling 2019-24

This Revenue Ruling examines the tax consequences of "hard forks" and "airdrops." A cryptocurrency hard fork occurs when rule changes irreversibly separate its earlier system. This may establish a new coin on a new ledger alongside the old one.^[74] After the split, new cryptocurrency transactions are recorded on the new ledger, while previous coin transactions remain on the old ledger. On the other hand, airdrop distributes money or tokens to selected crypto wallet addresses.^[75] Active blockchain community members receive small amounts of the new digital currency for free or in exchange for retweeting a firm post. A crypto airdrop aims to spread a new token or currency. The ruling is summarised below:

- § Hard forks, when a distributed ledger changes protocol, affect tax treatment depending on whether the taxpayer gets units of the new coin.
- § If a taxpayer does not receive new crypto units, Section 61 does not require gross income.
- § The taxpayer incurs ordinary income in the taxable year of the airdrop if they receive units after the hard fork and gain wealth.
- § At the distributed ledger airdrop, the taxpayer gets dominion and authority over the new coin, triggering income recognition.
- § Gross income includes the fair market value of the received units, defining the taxpayer's cryptocurrency basis.

d. Revenue Ruling 2023-14

It determines whether a cash-method taxpayer who obtains extra crypto units as a result of staking must include those awards in gross income. The ruling outcome is outlined below:

If a taxpayer, using the cash method of accounting, stakes cryptocurrency in a proof-of-stake blockchain and receives additional units as rewards upon validation, the fair market value of these rewards is considered part of the taxpayer's gross income.[\[76\]](#)

§ This inclusion occurs in the taxable year when the taxpayer gains control over the rewards.

§ The fair market value is determined at that specific date and time.

§ This ruling applies whether the cryptocurrency is staked directly or through a cryptocurrency exchange.

E. Challenges and Considerations of DAT

Blockchain Association of Kenya (BAK) filed a suit challenging the validity of the Digital Asset Tax (DAT) that went into effect on September 1, 2023. The petition emphasised an in-depth assessment of the legal and constitutional issues of the DAT on digital assets to address concerns about its possible adverse effects on the business and economy.[\[77\]](#) A critical examination of the petition indicates the following inadequacies:

a. Confusing Digital Asset Classification

Virtual currencies and tokens have emerged from blockchain technology, each with its characteristics and uses. Taxing all digital assets under one umbrella signals a categorisation mistake.[\[78\]](#) The DAT's classification includes "anything of value that is not tangible" and specifies cryptocurrencies, tokens, and non-fungible tokens (NFTs). It should follow Internal Revenue Service (IRS) practices in the United States, which provide a clear definition encompassing convertible digital currency, cryptocurrencies, stablecoins, and NFTs.

b. Digital Asset Transfer Ambiguity

Digital asset transfers must be defined for efficient taxation. Digital assets can be obtained via mining, swaps, staking, airdrops, and ICOs. The IRS denotes that tax implications arise from various digital asset transactions, such as selling for cash, exchanging for products or services, engaging in digital asset exchange or trade, using digital assets as payment, receiving assets after a hard fork, acquiring assets through mining or staking, and obtaining assets from an airdrop.[\[73\]](#) This classification highlights digital asset movement, digital service provider taxable revenue and transaction fee payment.

c. Impractical 24-Hour Remittance

In the Digital Asset Tax (DAT) proposal, Clause 10(4) involving the Blockchain Association of Kenya (BAK) highlights the deletion of a clause that initially required the Remittance of tax within 24 hours.⁶⁷ This is due to the administrative impracticality of such a tight timeline. The off-ramping process requires several working days to convert digital assets into fiat cash like Kenyan Shillings. Tax responsibilities for token transfers are complicated, making the procedure even more difficult.[\[79\]](#) Instead, BAK suggests an amendment to extend the remittance period to 5 working days.

d. Neglecting Loss-Making Transactions

Unlike the DAT, The IRS considers losses during digital asset transactions as part of the broader taxation framework for cryptocurrencies. Losses incurred in digital asset transactions, such as selling, exchanging or trading are recognised for tax purposes. When a taxpayer experiences a loss in the sale or exchange of digital assets, it may be used to offset capital gains, reducing the overall tax liability. The IRS has specific guidelines and requirements for reporting these losses.[\[80\]](#) Taxpayers must carefully document and disclose digital asset

transactions on their tax returns. They should provide details such as the fair market value at the time of receipt and any relevant information needed to calculate gains or losses accurately. The treatment of losses is an integral aspect of the IRS approach to ensure a comprehensive and transparent taxation framework.

VI. Nigeria's Approach to Crypto Taxation

A. Inclusion of Cryptocurrencies in the Capital Gains Act

On December 2, 2022, Zainab Ahmed, then-Minister of Finance, Budget, and National Planning, said the finance bill, now Act, will tax cryptocurrencies and other digital assets. Subsequently, the Federal Government of Nigeria (FGN) signed the 2023 Finance Bill into law on May 28, 2023.[\[81\]](#)

The Bill classified cryptocurrencies as chargeable assets under the Capital Gains Act, stating, "Subject to any exceptions provided by this Act, all forms of property shall be assets for this Act, whether situated in Nigeria or not, including options, debts, digital assets and incorporeal property generally."[\[82\]](#) However, since cryptocurrencies are considered personal possessions rather than financial instruments, their profits, particularly capital gains, may be taxed as personal income.[\[83\]](#)

These provisions outlined the taxes of Cryptocurrency and Digital Assets, aligning with the government's goal of strengthening cross-border and international taxation of ecommerce in emerging domains.⁶⁹ Nigeria aimed to tax digital assets, joining the UK, US, Australia, India, Kenya, and South Africa. Thus, the legislation's objective was to modernise the fiscal structure via tax revisions. As a result, it imposed a 10% tax on digital asset sales, including cryptocurrency.[\[84\]](#)

Section 3(a) of the Capital Gains Tax Act (CGTA) was modified to include "digital assets" after the term "debt." Section 5 of the Act was replaced with a new version: "5 (1) When calculating chargeable gains, any loss incurred by a person upon disposing of an asset is deductible from the gains resulting from the disposal of that same type of asset. (2) If, in a tax year, the total capital losses for a taxable person exceed the total chargeable gains, such losses can be carried forward for deduction against chargeable gains from the disposal of the same type of asset in the subsequent year and subsequent years, up to a maximum of five years following the year in which the loss occurred."[\[85\]](#)

While that is the case, after the Central Bank of Nigeria banned Nigerian banks from crypto-related activities in 2021, the Federal Inland Revenue Service (FIRS) ought to guide how to deduct and remit CGT on chargeable gains on digital assets. The foundation for computing CGT gains, especially the cost of digital assets, also needed clarification. Besides, Sections 11 to 14 of the CGTA, which calculate capital gains, should address digital assets' unique characteristics adequately.[\[86\]](#)

Table 7: Summary of the CGTA in Nigeria

Aspect	Capital Gains Tax Act, Cap C1 LFN 2004 (as amended)
Governance	Capital Gains Tax Act, Cap C1 LFN 2004 (as amended)
Tax Rate	Charged at a flat rate of 10% of chargeable gains
Coverage	All assets resulting in gains upon disposal are subject to CGT unless specifically exempted by the Act
Chargeable Assets	Encompasses various forms of property, regardless of their location within or outside Nigeria
Allowable Expenditure	Includes fees, commissions, or remunerations for professional services and the cost of transfer
Filing Deadline	Aligns with the Companies Income Tax schedule for filing returns and making tax payments
Exempted Gains	Gains exempted from CGT include those from the disposal of decorations for valour, life insurance policies, Nigerian government securities, stocks, and shares
Exempted Organizations	Specific organizations, such as ecclesiastical, charitable, or educational institutions, registered friendly societies, cooperative societies, and trade unions, are not subject to CGT if their gains do not stem from asset disposals connected to their trade activities

Source: Federal Inland Revenue Service (FIRS)[\[87\]](#)

Table 8: Comparison of Capital Gains Tax Common Approach and Nigeria's Capital Gains Act on Cryptocurrencies

Aspect	Capital Gains Tax Common Approach	Nigeria's Capital Gains Act on Cryptocurrencies
Classification of Cryptocurrencies	Treated as property for capital gains tax	Treated as chargeable assets under the Capital Gains Act
Tax Rate	Varies (e.g., 10% in many jurisdictions)	10% tax on digital asset sales, including cryptocurrency
Chargeable Assets	All forms of property, subject to exemptions	All forms of property, including digital assets
Treatment of Gains/Losses	Recognition of gains or losses for tax purposes	Deduction of losses from gains of the same type of asset
Enforcement Challenges	Possible challenges in practical implementation and enforcement	Need for guidance from the Federal Inland Revenue Service (FIRS) on deduction and remittance of CGT on digital assets
Foundation for Computing CGT Gains	Generally, follows the principle of capital gains tax computation	Clarifications needed, especially regarding the cost of digital assets, in alignment with the unique characteristics of cryptocurrencies
International Context	Aligns with the common international approach	Aligns with the global trend of taxing digital assets

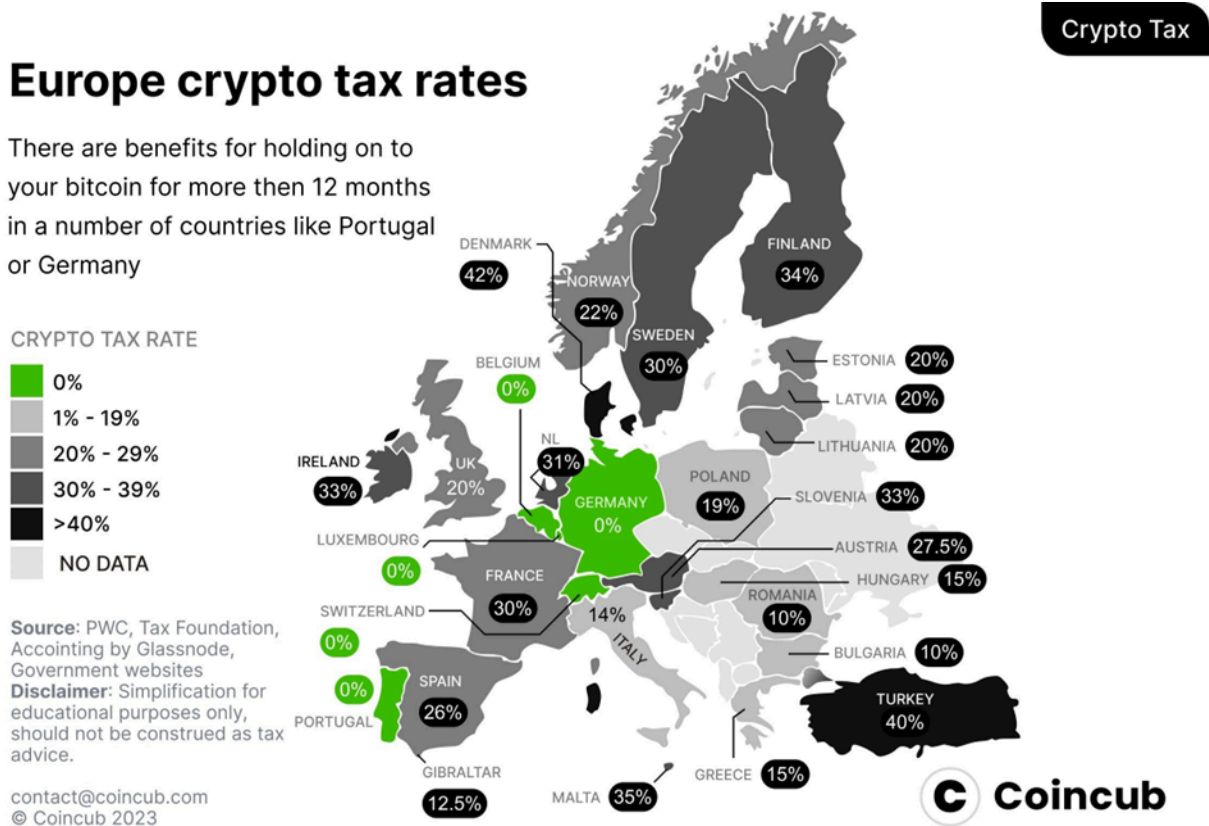
Table 9: Nigeria’s CGT Rate Comparison with Other Countries

The tax rates that apply to cryptocurrency profits are similar to those that apply to stock capital gains.

Country	Tax Rate	Period for Taxation	Exemptions	Additional Information
United Kingdom	10% (basic rate), 20% (higher and additional rate)	Depends on the size of gain, allowances and taxable income	No capital gains taxation on the first £6,000	Crypto transactions including mining, wages, airdrops, interest, staking, and NFT creation and sale are taxed.
Australia	Individual income tax rate (Short-term), 50% deduction (Long-term)	Short-term (held < 1 year), Long-term (held > 12 months)	None	Capital losses can be carried forward to capital profits in any year.
USA	Short-term: Income tax rate (10-37%), Long-term: 0%, 15%, 20%	Short-term (< 1 year), Long-term (> 1 year)	Individuals who lose money on crypto or other investments do not pay CGT and may offset their losses to future gains.	Long-term rates vary based on income levels.
Canada	Ranges from 15% to 33%	Not specified	Half of gains taxed as capital gains	Half of gains taxed as capital gains
Germany	Range from 0% to 45%.	Short-term (< 1 year), Long-term (10 years)	Investors who retain crypto tokens for a year pay no taxes upon selling.	The initial €600 in gains from less than a year are tax-free.
France	Flat rate of 30%; Crypto mining taxation is 45%	Not specified	Tax-free allowance for the first €305/year	Losses within the same tax year can be deducted.
Brazil	Ranges from 15% to 22.5%. Depends on monthly sales volume	Not specified	Investors pay CGT only if monthly sales surpass R35,000.	Losses can offset up to 30% of gains.
India	Tax rate of 30%. > 50,000 INR crypto sales in a year pay 1% extra tax.	Not specified	None	No crypto losses offset.
South Africa	Tax rate is 18%, Only 40% of gains subject to tax	Not specified	Exempt if monthly sales volume is ≤ R35,000	Losses can be used to offset gains.
Nigeria	10% flat rate	Not specified	Not specified	Applies a flat rate of 10% to chargeable gains.

Source: Techopedia[88]

Figure 6: Europe's Crypto Tax Rates



Source: Coincub[89]

B. The Finance Bill of 2022 and Previous SEC Provisions

a. SEC's Digital Asset Classification and Treatment Statement in 11th September, 2020

As of September 14, 2020, the Nigerian Securities and Exchange Commission (SEC) emphasised investor protection, public interest and market transparency for digital asset offerings. SEC claimed authority to regulate crypto-coin or crypto-token investments should they qualify as securities transactions. In this regard, it determined that virtual crypto assets

should be deemed as securities. Subsequently, it provided a regulatory scope that includes Digital Assets Token Offerings (DATOs), Initial Coin Offerings (ICOs), Security Token ICOs and other blockchain-based providers within or targeting Nigerian investors. Foundational to this was its definition of crypto assets as digital, non-jurisdictional and distinct from fiat currency and e-money.^[90]

Table 10: SEC’s Categorization of Virtual Assets

S/N	Type of Virtual Digital Asset	Regulatory Treatment
1	Crypto Asset (non-fiat virtual currency)	Considered as commodities when traded on a Recognized Investment Exchange or issued as an investment, subject to Part E of SEC Rules and Regulations.
2	Utility Tokens or "Non-Security Tokens"	Regarded as commodities. Spot trading and transactions in Utility Tokens are outside SEC jurisdiction unless conducted on a Recognized Investment Exchange, falling under Part E of SEC Rules and Regulations.
3	Security Tokens	Classified as Securities according to PART XVIII (315) of ISA, under the definition of Securities. All financial activities related to Security Tokens, including market operations and investment management, require adherence to regulatory requirements. Market intermediaries and operators must be registered/approved by SEC.
4	Derivatives and Collective Investment Funds of Crypto Assets, Security Tokens, and Utility Tokens	Governed as Specified Investments under the ISA & SEC Rules and Regulations. Market intermediaries and operators involved in these derivatives and funds need SEC registration and approval.

Source: SEC Nigeria^[90]

b. SEC’s Response to Possible Contradictions

The SEC addressed concerns regarding possible contradictions between its September 11, 2020 Statement on Digital Assets and the CBN’s February 5, 2021 Circular. The SEC stated it could

not find conflicts and emphasised its consistency with the Investments and Securities Act 2007 on digital assets. The CBN, the banking regulator, flagged risks, while the SEC sought clarification in the developing digital asset industry.[\[91\]](#) Ultimately, both parties agreed to work together on the analysis.

c. New Rules on Issuance, Offering Platforms and Custody of Digital Assets

On May 11, 2022, the SEC established digital asset issuance, offering platform and custody regulations with five elements. First, Part A regulated digital asset securities. Part B included Digital Assets Offering Platform (DAOP) registration, while Part C covered Digital Asset Custodian registration. Part D clarified regulations for Virtual Assets Service Providers (VASP), while Part E provided (Digital Assets Exchanges) DAX-specific restrictions. These extensive restrictions boosted the digital assets ecosystem's oversight and functioning.[\[92\]](#)

d. Key takeaways from PART A

Registration Requirements for Digital Assets:

§ The Commission determines digital assets as securities, requiring an application for registration.

§ Registration includes various components such as a statement, KYC procedures, risk and security protocols, solicitor's opinion, escrow agreement, corporate governance disclosures, and evidence of payment.

Commission Decision and Issuer Compliance:

§ If the issuer complies with registration requirements, the Commission may grant registration.

§ Rejection is possible if the proposed activity infringes public policy, is injurious to investors, or violates Commission laws.

Equity Holding and Fundraising Limits:

§ The issuer's directors and senior management must collectively own at least 50% equity on the issuance date.

§ Fundraising is capped at twenty times the issuer's shareholders' funds within 12 months, with a maximum of N10 billion.

Refund Obligation and Investment Limits:

§ If the amount raised is below the soft cap, the issuer must refund all collected funds.

§ Investment limits are set for qualified institutional and high-net-worth investors and retail investors.

Exemptions from Registration:

§ Securities are structured exclusively for crowdfunding or through intermediaries.

§ Sales through judicial processes, transactions by pledged holders or mortgagees to liquidate genuine debt, and isolated transactions for the owner's account are exempt.

Table 11: SEC’s Previous Provisions as the GroundWork for the CGTA

Aspect	Role of Previous SEC Provisions	Impact on Finance Capital Gains Tax Act (CGTA) of 2023
Digital Asset Classification	Categorized virtual assets (Crypto Assets, Utility Tokens, Security Tokens, Derivatives)	Influenced understanding of digital assets in the Finance Act, especially in terms of taxation.
Regulatory Treatment	Defined regulatory treatment for different virtual assets, e.g., Crypto Assets as commodities, Security Tokens as securities.	Provided a baseline for regulatory decisions, reflecting in the taxation of digital assets under the Capital Gains Act.
SEC’s Authority and Consistency	Emphasized SEC’s authority to regulate crypto-coin/token investments consistently with the Investments and Securities Act 2007.	Established a legal and regulatory basis that influenced subsequent legislation, ensuring consistency in regulatory goals.
Addressing Contradictions and Seeking Clarifications	Responded to concerns about conflicts with CBN’s Circular, demonstrating commitment to clarity.	Influenced the collaborative effort between SEC and CBN, showcasing a proactive approach to potential conflicts.
Establishment of Digital Asset Regulations	Created comprehensive regulations for digital asset issuance, offering platforms and custody.	Provided a regulatory framework influencing elements of the Finance Act, including registration requirements and execution.

C. Challenges of Taxing Cryptocurrencies in Nigeria

a. Regulatory Ambiguity

Nigerian tax law is primarily statutory, like most others. Thus, tax regulation is "nulla poena sine lege". This expression comes from criminal law and states that no one may be convicted of something that the law did not specify at the time.^[93] The Companies Income Tax Act and Personal Income Tax Act do not tax digital asset trading earnings. Despite this, cryptocurrency transactions are still taxable, but their nature makes tracking by regulators challenging.^[94] This phenomenon has caused the Central Bank of Nigeria (CBN) to instruct commercial

banks not to facilitate cryptocurrency financial transactions.^[95] Besides, the absence of disclosure and monitoring requirements, particularly for non-institutional actors, raises worries about tax compliance.¹³ The issue of taxing and penalising something undefined arises.^[96]

b. Regulatory Bodies' Contradicting Themselves

While the Central Bank of Nigeria had not lifted its prohibition on cryptocurrencies, the Nigerian Securities and Exchange Commission (SEC) published regulations for digital asset transactions. With the latest CGT Act modification, participants received inconsistent messages.^[97] In this case, the federal law should eliminate contradictions on how to regulate the digital asset market.^[98]

VII. South Africa's Taxation Rules for Cryptocurrencies

A. Existing Tax Rules Covering Digital Assets

CV VC's African Blockchain Report 2022 stated that South Africa has no crypto taxation law. Existing guidelines, however, already encompass the taxation of digital assets.^[99] In October 2022, the Financial Sector Conduct Authority (FSCA) formally designated cryptocurrency assets as a financial product under the Financial Advisory and Intermediary Services Act (FAIS).^[100] South African Revenue Service (SARS) confirmed this in 2018 when it said that it would "apply normal income tax rules to cryptocurrencies and will expect affected taxpayers to declare cryptocurrency gains or losses as part of their taxable income."^[101] This position implies that crypto profits or losses are taxable. The taxpayer's gross income must include the cryptocurrency's average, fair market value in South African Rands at the date of receipt or sale as a revenue asset.^[102] The value should also be the average cryptocurrency price based on at least two market-accepted pricing indexes.

Further, the law gives some guidance on declaring earnings and losses. South Africa, like Kenya and Nigeria, intends to monitor crypto transactions through crypto exchanges.[\[103\]](#) The problem is that some crypto users do not use these platforms. They leverage decentralised crypto platforms for KYC-free transactions.⁶³

According to SARS, crypto asset transaction income is taxed as gross income under regular income tax laws. The Act's Eighth Schedule permits these profits to be regarded as capital under Capital Gains Tax (CGT).[\[104\]](#) The classification of income as revenue or capital follows existing rules. Therefore, taxpayers may claim crypto asset transaction expenditures for income generation and exchange. Besides, SARS defines *mining* as performing complex algorithms to verify transactions and earn crypto assets. Exchanges and private transactions also allow investors to swap local money for crypto assets. Lastly, goods or services may be traded for crypto assets like barter under conventional laws. The CGT also allows base cost changes. The Income Tax Act 1962 defines the base cost of a capital item as the actual expenditure made during purchase, including permissible expenditure during disposal (Paragraph 20 of the Eighth Schedule).

The taxpayer receives the new digital currency asset without consideration, but the pre-existing asset remains.[\[105\]](#)

While that is the case, South Africa taxes income from 1 rand (ZAR) to 216,200 ZAR (\$11,112) at 18%. The tax rate rises with taxable income, reaching 45% on income above 1,656,601 ZAR (\$85,151). The highest effective tax rate on crypto asset capital gains is 18%. This depends on an individual's total taxable income and profits above 40,000 ZAR (\$2,056).[\[106\]](#)

Table 12: CGT Regulatory Overview in South Africa

Regulatory Change	Overview	Implications
General Taxation Principles	<ul style="list-style-type: none"> SARS (South African Revenue Service) Media Release confirms that crypto earnings are subject to both income tax and Capital Gains Tax (CGT). Existing tax rules are flexible enough to apply to crypto transactions. Taxpayers are responsible for declaring crypto transactions. 	<ul style="list-style-type: none"> Taxpayers must adhere to normal income tax and CGT rules for crypto. Failure to disclose may result in interest and penalties. Voluntary Disclosure Programme available for penalty waiver.
Tax Treatment of Cryptocurrencies	<ul style="list-style-type: none"> Cryptocurrencies regarded as assets of an intangible nature, not currency. Proposed treatment as "financial instruments." Tax treatment broadly similar to shares but differs on detailed comparison. 	<ul style="list-style-type: none"> Tax treatment depends on intention when buying, holding, and selling. Income tax for trading, CGT for investing. CGT rate is lower than income tax rate.
Draft TLAB (Taxation Laws Amendment Bill)	<ul style="list-style-type: none"> Cryptocurrencies to be included in the definition of "financial instrument" for income tax purposes. No detailed definition for cryptocurrency proposed. Proposed changes include various impacts on income tax and CGT treatment. 	<ul style="list-style-type: none"> Trading stock write-down allowances no longer available. Market value calculation for capital assets. Exemptions or relief from CGT may not apply.
Exchanging Crypto for Non-Cash Items	<ul style="list-style-type: none"> Barter or exchange transactions are taxable. Taxable "amounts" not limited to cash but include assets with monetary value. Both parties subject to income tax or CGT based on intention and facts. 	<ul style="list-style-type: none"> Tax implications for both parties depend on the nature of the transaction (trading vs. investing). Claims for expenses or base cost depend on intention and facts.
Mining	<ul style="list-style-type: none"> SARS provides limited guidance. - Draft TLAB and Response Document lack specific changes related to mining. - Presumption that crypto earned from mining is for trading purposes. 	<ul style="list-style-type: none"> Sales of mined crypto subject to income tax or CGT based on intention and facts. Lack of detailed guidance may lead to uncertainties.

Source: Bowmans Law [\[54\]](#)

B. Application of Value Added Tax (VAT) to Crypto Assets

Section 2 of the South African VAT Act defines "financial services," which includes cryptocurrency issuance, acquisition, collecting, purchasing and selling. This means cryptocurrency sales are VAT-exempt. [\[107\]](#) Thus, residents selling cryptocurrencies cannot charge output VAT, and vendors cannot deduct input tax on future crypto purchases. Although not stated in the VAT Act, business-to-business transactions are also exempt. Therefore, firms moving cryptocurrency to other businesses are not required to account for

VAT. Besides, the VAT Act does not directly cover cross-border cryptocurrency transactions. However, they are believed to be VAT-exempt in South Africa. Notably, the (current) VAT Act No. 89 of 1991 impose output tax on imported goods, the supply of imported services, and the supply of goods and services by a vendor in the furtherance of an enterprise.[\[108\]](#)

Table 13: Overview of South Africa’s VAT Act

Regulatory Development	Overview	Implications
VAT Treatment - SARS Media Release	<ul style="list-style-type: none"> • Pending policy clarity, SARS does not require VAT registration for the supply of cryptocurrencies. • Transactions involving cryptocurrencies not treated as a "supply" for VAT purposes. 	<ul style="list-style-type: none"> • No VAT registration required for cryptocurrency transactions, pending policy clarity. • Current treatment avoids immediate VAT implications.
VAT Treatment - Draft TLAB	<ul style="list-style-type: none"> • Proposes inclusion of cryptocurrencies in the definition of "financial services" under the VAT Act. • Cryptocurrencies considered exempt supplies for VAT purposes. • Negative consequences include potential VAT apportionment issues for enterprises accepting cryptocurrency. • Lack of guidance on the meaning of cryptocurrency under the VAT Act. 	<ul style="list-style-type: none"> • Cryptocurrency transactions considered exempt, reducing the need for VAT registration. • Potential challenges for enterprises accepting cryptocurrency as payments due to VAT apportionment issues. • Lack of clarity on cryptocurrency's definition may lead to uncertainty.
VAT Treatment - Draft Response Document	<ul style="list-style-type: none"> • Example provided: Vendor accepting cryptocurrencies and then on-selling them loses entitlement to full input tax credits. • Recognition of VAT leakage in such scenarios. • Application of usual provisions of the VAT Act relating to mixed supplies and apportionment. 	<ul style="list-style-type: none"> • Vendors accepting cryptocurrencies may lose entitlement to full input tax credits. • VAT leakage acknowledged, but current view is to apply existing provisions of the VAT Act for mixed supplies and apportionment.
Mining Cryptocurrencies and VAT	<ul style="list-style-type: none"> • Bitcoin mining's VAT treatment is not explicitly addressed in the VAT Act in South Africa. • The VAT Act does not specifically address bitcoin mining, but it is argued that the broad definition of services in the Act covers bitcoin mining. 	<ul style="list-style-type: none"> • Bitcoin mining is not classified as a taxable supply for VAT purposes, as the supply of cryptocurrencies is VAT exempt. • No VAT liability is incurred in bitcoin mining due to the absence of an identifiable consumer of the mined proceeds.

Source: Bowmans Law[\[54\]](#) and Kagwe (2020)[\[108\]](#)

Table 14: Areas of Alignment and Misalignment Between the Common and South Africa's VAT Treatment OF Crypto Assets

C. Challenges and Considerations of VAT Taxation

a. Apportionment Issues

There may be a VAT apportionment compliance risk that might leak VAT to the fiscus or taxpayer. South Africa classifies cryptocurrency for VAT purposes similarly to other nations. However, the European Union (E.U.) turnover formula is flexible and allows for adjustments for potentially distorting elements like interest and dividends, making it a more fair and suitable way of apportionment than South Africa. Besides, classifying cryptocurrencies as financial services feeds the existing argument between taxpayers and SARS about a fair and suitable apportionment mechanism in S.A. [\[109\]](#)

b. Lack of Clear Categorisation of Crypto-Based Transactions

Besides, South Africa's income tax framework does not include areas including, blockchain hard fork, airdrop receipts, crypto-based donations, Initial Coin offerings (ICOs), and loss or theft. [\[105\]](#) Income tax guidelines seldom cover non-consideration uses of virtual currency and tax treatments differ by country. [\[30\]](#) Thus, better clarity is essential for effective taxation.

c. Hard Forks Taxation Challenges

While that is the case, regarding the blockchain hard fork in South Africa, proving a capital intention for crypto may be difficult. In a hard fork, a taxpayer may infer the purpose of purchasing new crypto assets from the intention for which the existing crypto asset was held. This creates a new cryptocurrency with independent value, potentially resulting in a net gain or loss for crypto holders. [\[28\]](#) Therefore, hard forks are not always a zero-sum game. However,

SARS treats new crypto assets as trading stock, following worldwide practices.¹⁰¹ Due to market valuations and a lack of trade at the hard fork date, revenue recognition upon receipt or disposal is critical. The taxpayer's trading stock includes the new crypto asset's value if it is revenue under section 22(4) of the Income Tax Act.[\[110\]](#) If the taxpayer can classify the new crypto asset as a capital asset, the profits on disposal will count towards a capital gain, taking into account minimal fees. This approach matches section 40C's handling of shares received without consideration.[\[110\]](#) Thus, the tax consequences of a hard fork depend on the taxpayer's purpose, the acquired asset, and the transaction's details. In this case, a hard fork is not taxable, and the original tax value of new crypto assets is zero since they were obtained for free without any consideration. The disposition of new crypto assets should be subject to gross income or capital gains tax. Likewise, airdrop crypto assets are acquired free of cost (other than transaction costs), and the entire disposal value should be taxed to avoid double taxation.[\[111\]](#)

d. ICOs Taxation Challenges

There needs to be more clarity about ICOs and how authorities and corporations should manage their issuance and trade.[\[112\]](#) Proposed policies and laws for cryptocurrencies should include ICOs since they are beneficial to global markets.[\[113\]](#) Article 21 of the OECD Model Tax Convention 2017 applies more to classifying investors' return on investment in tokens compared to traditional hybrid financial instruments.[\[114\]](#) However, some ICOs have a shared taxing right for utility tokens. Since they are intangible assets, selling them may be considered disposal and taxable. However, since no income is created during issuance, there may be no tax consequence. Instead, income tax applies when tokens are used or redeemed.[\[115\]](#)

e. Donation Taxation Challenges

The tax status of virtual money donations differs per country.²⁴ Gifting virtual currencies in the U.K. triggers a taxable event for the donor, and the receiver is considered to accept the gift at its market value, possibly liable to capital gains tax.[\[116\]](#) However, donations to recognised charities, for example, are exempt from capital gains tax. In contrast, U.S. donors and recipients pay no taxes on donations under USD 15,000.[\[117\]](#) The donor's basis and whether they sell the item for a profit determine the recipient's tax liability. But U.S. nonprofits may exchange virtual currency donations at fair market value without capital gains or losses.

f. Losses and Theft Taxation Challenges

The prospect of virtual money losses or theft raises tax problems. There is a need to determine whether a taxpayer should regard a loss or theft as a disposal and capital loss.³⁰ For example, if a crypto-asset is lost or stolen in Australia, its proprietor may claim a capital loss if they can prove proof of ownership.[\[118\]](#) In the U.K., theft is not regarded as a disposal, and HMRC believes the person retains ownership of the item. Although losing a private key is not considered a disposal, a taxpayer can request recognition of the loss.[\[119\]](#)

Figure 7: Income Tax Implication Comparison between SA and Other Countries

TABLE 2: Income tax consequences of crypto asset transactions identified in benchmarking.

Number	Transaction	USA (IRS 2014, 2019a, 2019b)	UK (HMRC 2018b, 2019)	AUS (ATO 2020)	SA (SARS 2018a, 2018b)
1	Exchanging one type of crypto asset for another	Capital gain or loss if held as a capital asset. Ordinary gain or loss if held as trading stock.	For individuals, considered for Capital Gains Tax (CGT), except when an individual is a trader and, as such, normal income tax rules apply. For businesses, subject to corporation tax except when held for investment, which results in CGT for individuals and partnerships, and Corporation Tax on Chargeable Gains for companies.	Will give rise to capital gain or loss. It is possible that such gain or loss may be disregarded as arising from the disposal of a personal use asset. If held as trading stock, will give rise to deductible expenditure and ordinary income.	Capital gain, if held as a capital asset; and gross income, if held as trading stock.
2	Exchanging crypto assets for fiat currency	Capital gain, if held as capital asset; and gross income, if held as trading stock.	For individuals, considered for CGT, except when an individual is a trader and normal income tax rules apply. For businesses, subject to corporation tax, except when held for investment.	Will give rise to capital gain or loss. If held as trading stock, will give rise to deductible expenditure and ordinary income.	Capital gain, if held as a capital asset; and gross income, if held as trading stock.
3	Making payments in crypto assets in exchange for products or services	Capital gain on disposal as payment, if held as capital asset; and gross income, if held as trading stock.	For individuals, considered for CGT, except when an individual is a trader and normal income tax rules apply. For businesses, subject to corporation tax, except when held for investment.	Will give rise to capital gain or loss. If held as trading stock, will give rise to deductible expenditure and ordinary income.	Normal barter transaction rules apply.
4	Receiving crypto assets in exchange for products or services	Ordinary income at the fair value of crypto assets received.	Ordinary income at the fair value of crypto assets received.	Ordinary income at the fair value of crypto assets received.	Gross income at the fair value of crypto assets received.
5	Receiving salary payments in crypto assets	Ordinary income at the fair value of crypto assets received.	Ordinary income at the fair value of crypto assets received.	Ordinary income at the fair value of crypto assets received.	Gross income at the fair value of crypto assets received.
6	Obtaining crypto assets through mining	Gross income at the fair value of crypto assets received.	Ordinary income at the fair value of crypto assets received. If not undertaken as a trade, amounts are included in miscellaneous income.	Ordinary income at the fair value of crypto assets received. Mining is listed as an example of a crypto asset business. The ATO guidance acknowledges that not all crypto asset transactions will occur in the context of a business, although it does not explicitly address mining outside of a business context.	Gross income at the fair value of crypto assets received. Considered to be held as trading stock until exchanged for other crypto assets or fiat currency.
7	Blockchain hard fork	Ordinary income at the fair value of new crypto assets on receipt.	Capital gain or loss on disposal of new crypto assets.	Capital gain on disposal of new crypto assets if the result of investment activities. Revenue income in the year of receipt if the product of business activities.	No guidance provided
8	Receiving an airdrop	No guidance provided (the IRS refers to an 'airdrop' as the receipt of new crypto assets in a hard fork)	Ordinary income at the fair value of crypto assets on receipt, if received for reciprocal action by the taxpayer. Otherwise, capital gain or loss on disposal of new crypto assets.	Ordinary income at the fair value of crypto assets received.	No guidance provided
9	Donating crypto assets, including to charities	Donations to charitable organisations will not give rise to income or capital gain or loss. No guidance provided on other donations.	Will give rise to capital gain or loss. Donations to charitable organisations are excluded from CGT.	Will give rise to capital gain or loss.	No guidance provided
10	ICOs	No guidance provided	No guidance provided	No guidance provided	No guidance provided
11	Loss or theft	No guidance provided	Excluded from the concept of disposal, therefore no income tax consequences.	Considered a disposal. Loss may be recognised if theft or loss of access can be substantiated.	No guidance provided

ATO, Australian Tax Office; ICO, Initial Coin Offerings; IRS, Internal Revenue Service; USA, United States of America; UK, United Kingdom; AUS, Australia.

Source: Namhla and Parsons (2023)[105]

VIII. Comparison of African Countries' Crypto Taxation Approaches

Table 15: Meta-Analysis Table: Kenya's Taxation of Cryptocurrencies

Aspect	Digital Service Tax based on the Income Tax 2019	Initial DAT Proposal (Finance Bill 2023)	Latest DAT Plan (Finance Act 2023)
Recognition of Digital Assets	Cryptocurrency platforms like Binance included in the broad definition of "digital marketplaces."	Recognised "digital assets" as "anything of value that is not tangible and cryptocurrencies, token code, number held in digital form and generated through cryptographic means.	"Digital asset" classified as anything non-tangible value, including cryptocurrencies and token codes
Shift towards Income Taxation	Digital service tax on the gross value of transactions.	Shift towards taxing income derived from the transfer or exchange of digital assets.	Shift towards taxing income derived from the transfer or exchange of digital assets.
Compliance Requirements	Involves compliance requirements for reporting gains or losses.	Non-residents who own digital asset trading platforms must register under the simplified tax framework.	Non-residents who own digital asset trading platforms must register under the simplified tax framework.
Tax Rate and Specificity	1.5% of total transaction value.	3% from residents' crypto asset sales proceeds withheld.	Fixed 3% tax rate on the transfer or exchange value of digital assets.
Obligation for Platform Owners	Digital service providers and Digital marketplace providers provide remit taxes to Commissioner of Income Taxes at the KRA	Obligation for platform owners to deduct DAT and remit it to the Commissioner.	Obligation for platform owners to deduct DAT and remit it to the Commissioner.
Timing of Remittance	20th day of the following month that the digital service was offered.	24-hour timeline mentioned for remittance in the initial proposal.	5-working day remittance requirement

Sources: Republic of Kenya [69],[68],[70], National Assembly Bills[120]

Table 16: Meta-Analysis Table: Nigeria's Approach to Crypto Taxation

Aspect	Nigeria's Capital Gains Act on Cryptocurrencies	SEC Provisions as the Ground Work for the CGTA
Classification of Cryptocurrencies	Recognised "digital assets" as "anything of value that is not tangible and cryptocurrencies, token code, number held in digital form and generated through cryptographic means.	"Digital asset" classified as anything non-tangible value, including cryptocurrencies and token codes
Tax Rate	Shift towards taxing income derived from the transfer or exchange of digital assets.	Shift towards taxing income derived from the transfer or exchange of digital assets.
Chargeable Assets	Non-residents who own digital asset trading platforms must register under the simplified tax framework.	Non-residents who own digital asset trading platforms must register under the simplified tax framework.
Treatment of Gains/Losses	3% from residents' crypto asset sales proceeds withheld.	Fixed 3% tax rate on the transfer or exchange value of digital assets.
Enforcement Challenges	Obligation for platform owners to deduct DAT and remit it to the Commissioner.	Obligation for platform owners to deduct DAT and remit it to the Commissioner.
Foundation for Computing CGT Gains	24-hour timeline mentioned for remittance in the initial proposal.	5-working day remittance requirement
International Context	Aligns with the global trend of taxing digital assets	Established a legal and regulatory basis that influenced subsequent legislation
Digital Asset Classification	Influenced understanding of digital assets in the Finance Act, especially in terms of taxation	Created comprehensive regulations for digital asset issuance, offering platforms, and custody
Regulatory Treatment	Provided a baseline for regulatory decisions, reflecting in the taxation of digital assets under the Capital Gains Act	Defined regulatory treatment for different virtual assets, e.g., Crypto Assets as commodities
SEC's Authority and Consistency	Established a legal and regulatory basis that influenced subsequent legislation, ensuring consistency in regulatory goals	Emphasized SEC's authority to regulate crypto-coin/token investments consistently
Addressing Contradictions	Influenced the collaborative effort between SEC and CBN, showcasing a proactive approach to potential conflicts	Responded to concerns about conflicts with CBN's Circular, demonstrating commitment to clarity
Establishment of Digital Asset Regulation	Provided a regulatory framework influencing elements of the Finance Act, including registration requirements and exemption	Created comprehensive regulations for digital asset issuance, offering platforms, and custody

Sources: Federal Inland Revenue Service [87], SEC Nigeria [90], [91], [92]

Table 17: Meta-Analysis Table: South Africa's Taxation Rules for Cryptocurrencies

Aspect	CGT and Income Tax Regulatory Overview in South Africa	VAT Regulatory Overview in South Africa
General Taxation Principles	<ul style="list-style-type: none"> - SARS applies normal income tax rules to cryptocurrencies. - Taxpayers must declare crypto transactions (part of taxable income). 	<ul style="list-style-type: none"> - Pending policy clarity, SARS does not require VAT registration for the supply of cryptocurrencies. - Transactions involving cryptocurrencies not treated as a "supply" for VAT purposes.
Tax Treatment of Cryptocurrencies	<p>Financial Sector Conduct Authority (FSCA) formally designated cryptocurrency assets as a financial product under the Financial Advisory and Intermediary Services Act (FAIS).</p>	<ul style="list-style-type: none"> - Proposes inclusion of cryptocurrencies in the definition of "financial services" under the VAT Act. - Cryptocurrencies considered exempt supplies for VAT purposes.
Draft TLAB (Taxation Laws Amendment Bill)	<p>Cryptocurrencies to be included in the definition of "financial instrument" for income tax purposes.</p>	<ul style="list-style-type: none"> - Example provided: Vendor accepting cryptocurrencies and then on-selling them loses entitlement to full input tax credits. - Recognition of VAT leakage in such scenarios.
Exchanging Crypto for Non-Cash Items	<ul style="list-style-type: none"> - Barter or exchange transactions are taxable. - Taxable "amounts" not limited to cash but include assets with monetary value. 	<ul style="list-style-type: none"> - Current view is to apply existing provisions of the VAT Act for mixed supplies and apportionment.
Mining	<ul style="list-style-type: none"> - The Act's Eighth Schedule defines mining as performing complex algorithms to verify transactions and earn crypto assets. - Presumption that crypto earned from mining is for trading purposes. 	<ul style="list-style-type: none"> - Bitcoin mining is not classified as a taxable supply for VAT purposes. - No VAT liability incurred in bitcoin mining due to the absence of an identifiable consumer of the mined proceeds.

Sources: *BowmansLaw Report* [\[54\]](#), *Financial Sector Conduct Authority* [\[100\]](#)

Table 18: Comparative Analysis of Kenya, Nigeria, and South Africa's Crypto Laws

Aspect	Kenya	Nigeria	South Africa
Recognition of Digital Assets	Cryptocurrencies recognized as taxable entities.	Cryptocurrencies treated as chargeable assets under the Capital Gains Act.	Cryptocurrency assets as a financial product under the Financial Advisory and Intermediary Services Act (FAIS).
Shift towards Income Taxation/CGT	Shift towards taxing income from the transfer or exchange.	Treated as property for CGT.	SARS applies normal income tax and CGT rules to cryptocurrencies.
Compliance Requirements	Inclusion of specific compliance requirements for platform owners and non-resident persons to register and remit the Digital Asset Tax (DAT).	Involves compliance requirements based on Finance Act, including registration and exemptions	Taxpayers must declare crypto transactions. Pending policy clarity; SARS does not require VAT registration for the supply of cryptocurrencies.
Tax Rate and Specificity	Latest DAT Plan (3% Tax).	10% tax on digital asset sales, including cryptocurrency.	SARS taxes crypto-to-crypto profits as capital gains (18%)
Obligation for Platform Owners/ User	Obligation for platform owners/ digital service providers/digital marketplace providers to deduct DAT and remit it to the Commissioner.	Tax obligations typically on individuals realizing capital gains.	Tax obligations typically on individuals realizing capital gains.
Timing of Remittance	Platform owners required to remit the deducted DAT amount within a five working days window.	Taxes on capital gains paid according to regular tax filing	Taxes on crypto income paid according to regular tax filing
Classification of Cryptocurrency	Recognition of digital assets (cryptocurrencies) as taxable entities.	Categorized virtual assets (Crypto Assets, Utility Tokens, Security Tokens, Derivatives).	Crypto transaction income is taxed as regular income, but the Eighth Schedule of the Act allows treating these profits as capital for CGT.
Treatment of Gains/Losses	No loss offset considerations.	Deduction of losses from gains of the same type of asset.	Capital gains from crypto and other assets can be offset by cryptocurrency losses.
Enforcement Challenges	Blockchain Association of Kenya (BAK) tasked with drafting Digital Asset Taxation Bill Need for Capital Market Authority to regulate crypto	SEC has the authority to regulate crypto-coin/token investments	Pending policy clarity; transactions involving cryptocurrencies are not treated as a "supply" for VAT purposes.
Foundation for Computing CGT Gains	Clarifications needed, especially regarding the cost of digital assets, in alignment with the unique characteristics of cryptocurrencies.	Created comprehensive regulations for digital asset issuance, offering platforms, and custody.	Tax implications for both parties depend on the nature of the transaction (trading vs. investing).
International Context	Does not align with the global trend of taxing digital assets completely.	Does not align with the global trend of taxing digital assets completely.	Does not align with the global trend of taxing digital assets completely.

Table 19: Challenges and Gaps in Current Taxation Approaches in Kenya, Nigeria, and South Africa

Kenya	Nigeria	South Africa
Crypto/ Digital Asset Tax		
Confusing digital asset classification.	Undefined tax regulation due to CBN restrictions.	Lack of clarity on certain digital asset transactions.
Lack of clear definition encompassing various digital assets.	Lack of specific regulations for digital asset trading earnings.	Limited areas covered, such as blockchain hard fork and airdrop receipts.
Ambiguity in defining digital asset transfers.	Ongoing challenges with the Central Bank's restrictions on crypto transactions.	Challenges in classifying cryptocurrencies for VAT purposes.
Impractical 24-hour remittance requirement.	Lack of disclosure and monitoring requirements.	Tax obligations typically on individuals realizing capital gains.
Platform owners required to remit the deducted DAT amount within a five working days window.	Taxes on capital gains paid according to regular tax filing	Taxes on crypto income paid according to regular tax filing
Recognition of digital assets (cryptocurrencies) as taxable entities.	Categorized virtual assets (Crypto Assets, Utility Tokens, Security Tokens, Derivatives).	Limited areas covered, such as loss or theft of virtual currency.
Neglecting recognition of losses in transactions.	Need for cooperation between regulatory bodies.	Challenges in determining a fair and suitable apportionment mechanism for VAT.
Blockchain Association of Kenya (BAK) tasked with drafting Digital Asset Taxation Bill Need for Capital Market Authority to regulate crypto	SEC has the authority to regulate crypto-coin/token investments	Pending policy clarity; transactions involving cryptocurrencies are not treated as a "supply" for VAT purposes.
Overall Considerations		
Need for clearer classification and definitions	Need for consistent messaging from regulatory bodies.	Need for comprehensive regulations addressing challenges in identifying financial operations participants.
Recognizing and allowing for losses in transactions.	Consideration of digital asset trading earnings in tax laws.	Tax valuation considerations due to the unpredictable nature of cryptocurrency values.
Addressing the impracticality of 24-hour remittance.	Addressing tax compliance concerns for non-institutional actors.	Comprehensive coverage for areas like blockchain hard fork, donations and airdrop receipts.

Table 20: Lessons from Other Global Crypto Taxation Practices

Tax Aspect	Income Tax Approach	Capital Gains Tax Approach	VAT/Sales Tax Approach
Cryptocurrency Status	Treated as property for income tax purposes, subject to capital gains tax.	Recognizes digital assets (cryptocurrencies) as taxable entities.	Profits from crypto sales may be taxed similarly to other assets.
Recognition of Gains	Emphasis on taxation of gains and income.	Shift towards taxing income from the transfer or exchange of digital assets.	Profits from crypto sales may be taxed similarly to gains from the sale of other assets.
Long-Term Gains	Varies by jurisdiction. Some countries offer zero tax rates on long-term gains.	Long-term gains may have favorable tax rates or exemptions.	Long-term gains may be subject to different tax rates or exemptions.
Tax-Free Short-Term Gains	Varies by jurisdiction. Some countries allow tax-free short-term gains up to a certain limit.	Tax-free allowances or exemptions for short-term gains may apply.	Short-term gains may be subject to specific tax-free allowances or exemptions.
Compliance Requirements	Compliance requirements for reporting gains or losses are typically involved.	Compliance requirements for reporting gains or losses may exist.	Compliance requirements for VAT registration, value determination, and timing.
Tax Challenges	Acknowledges potential burden on small users due to transaction calculations.	Possible challenges in practical implementation and enforcement.	Recognition of challenges in crypto transactions, including VAT calculation complexities.
Legal Framework	Emphasizes the importance of a legal framework and proper regulation before taxation.	Generally, follows the principle of capital gains tax computation.	Considers legal frameworks and regulations for VAT applicability and compliance.
Exemptions	Exemptions may exist based on factors like holding period or specific allowances.	All forms of property are subject to exemptions; however, specific rules may vary.	Exemptions or specific treatments may apply, especially for certain types of crypto assets.

VIII. Considerations for Harmonizing Taxation Rules Across African Nations

Crypto transactions' international nature necessitates legal regulation based on the solitary general model chosen by multilateral international agreements.[\[117\]](#) A global or regional instrument signed by member countries should establish uniform legislation for cryptocurrency regulation.[\[118\]](#) This will ensure legality, predictability, transparency, and consistency in cryptocurrency transactions. However, in the "crypto fever" period, there has been no complete legal framework that addresses all constraints in identifying financial operations participants.[\[119\]](#)

There is potential for regional harmonisation or cross-border systems for payments, commerce, and identity, and verification for digitised transactions.[\[121\]](#) A worldwide strategy for crypto-asset regulation is supported by the technology's international character, interconnection within the ecosystem, and potential integration with existing financial systems. Lack of clarity on crypto-asset ecosystem definitions, taxonomies, and categories has led to different legal frameworks internationally, with different legal responsibilities. The Financial Stability Board (FSB) proposed a global framework for crypto asset and stablecoin regulation in October 2022, highlighting gaps in national implementation, cross-border cooperation, wallet and custody service risks, trading, lending, borrowing, and the decentralised ledger technology (DLT) use.[\[122\]](#)

Achieving global coordination in crypto-asset regulation will require countries to harmonise policy frameworks or reach a consensus. This is due to the concentrated nature of ecosystem stakeholders in regions with diverse oversight approaches, potential regulatory arbitrage, and varying degrees of openness to ecosystem development. Besides, fragmented surveillance, supervision, and enforcement make global crypto-asset regulation problematic due to technological issues and overlapping risk and compliance areas. For example, the lack of

harmonised accounting hinders consumers' capacity to evaluate the financial performance of organisations participating in cryptocurrency transactions.[\[123\]](#) Financial statements should reflect the economic situation and psychology of cryptocurrency investors when regulating cryptocurrencies. Therefore, a uniform policy is necessary to prevent illegal activity and promote predictability and consistent practises across transaction parties, preventing jurisdiction difficulties in a global market.[\[124\]](#)

Crypto assets, especially virtual currencies, are rapidly developing, and tax officials are currently assessing the implications.[\[24\]](#) Jurisdictions are less likely to relinquish banking system monopoly authority.[\[125\]](#) Notably, establishing a uniform definition is essential for international regulation.[\[126\]](#) Open innovation like blockchain should encourage organisations to collaborate to accelerate and improve their innovation abilities and broaden the potential for external usage of their efforts in many industries. Several models are proposed to regulate cryptocurrency. First, determining the optimum degree of central regulation; second, understanding consumer acceptance; and comprehending cryptocurrency adoption and IFRS accounting models.[\[127\]](#) The FSB necessitates complete regulatory standards for transnational stablecoin arrangements, including robust oversight, risk management, and data collection. It also stresses trust, openness, independent audits, complicated risk profiles, and conflicts of interest.[\[113\]](#) However, It will be impossible to pass a law that covers all crypto assets and their uses.[\[128\]](#) Thus, a tailored approach is crucial. There is also a need to create a worldwide standard to unify AML/CTF legislation and regulations linked to cryptocurrencies and blockchain technology. While that is the case, crypto-assets and traditional instruments should coexist without controversy. History shows that standardisation and institutional innovation can drive financial progress.[\[129\]](#)

Table 21: Towards a Cohesive and Forward-Looking Crypto Taxation Landscape in Africa

Regulatory Aspect	Harmonized Regulation Approach
Standardized Definitions and Classifications	<ul style="list-style-type: none"> § Develop a common understanding and definition of digital assets. § Address confusion in classification and terminology. § Establish clear taxonomies and categories for various digital assets to ensure consistency across nations.
Comprehensive Regulatory Framework	<ul style="list-style-type: none"> § Collaborate to create a comprehensive regulatory framework covering all aspects of the crypto-asset ecosystem. § Address digital asset trading earnings, ICOs, loss or theft, and other relevant transactions. § Address specific issues such as remittance timeline requirements, disclosure, and monitoring requirements. § Consider the legal implications of virtual money activities like donations.
Cross-Border Cooperation	<ul style="list-style-type: none"> § Facilitate cross-border cooperation among regulatory bodies to address gaps in the application of regulations and supervision. § Establish mechanisms for sharing information and coordinating efforts to track cryptocurrency transactions and ensure compliance.
Recognition of Losses and Fair Valuation	<ul style="list-style-type: none"> § Ensure tax laws recognize and allow for losses in crypto transactions. § Provide a fair and realistic valuation mechanism for tax purposes. § Address challenges in determining the tax status of virtual money losses or theft. Establish guidelines for the valuation of cryptocurrencies.
Consistent Messaging and Cooperation	<ul style="list-style-type: none"> § Encourage consistent messaging from regulatory bodies to provide clarity and guidance to market participants. § Promote cooperation between regulatory bodies, both domestically and internationally, to create a cohesive regulatory environment for digital assets.
Harmonized AML/CTF Legislation	<ul style="list-style-type: none"> § Work towards a unified anti-money laundering (AML) and counter-terrorism financing (CTF) legislation and regulations related to cryptocurrencies. § Establish a global standard for AML/CTF compliance to prevent illegal activities and ensure a uniform approach to combating financial crimes.
Global Standardization Efforts	<ul style="list-style-type: none"> § Advocate for global standardization efforts in collaboration with international organizations to unify tax policies and regulations. § Participate in discussions and initiatives that aim to create a worldwide standard for crypto taxation, considering the economic situation and psychology of cryptocurrency investors.
Public and Private Sector Collaboration	<ul style="list-style-type: none"> § Foster collaboration between public and private sectors to ensure that regulations are practical, enforceable, and consider the needs of both the government and industry stakeholders.

IX. Conclusion

Cryptocurrencies are gaining popularity in Sub-Saharan Africa due to financial inclusion, economic challenges, currency volatility, and cross-border transactions. Policymakers need to balance innovation and consumer protection for sustainable growth. There is a need for government intervention, regulations, and strategic development to ensure security, generate tax revenue, and promote accurate information dissemination.. Currently, the taxation of cryptocurrencies in Africa varies across countries, with emerging laws treating them as property for income tax purposes.

Cryptocurrencies, possessing transactional rights akin to property and currency and exhibiting tokenisation features, face classification challenges. However, the most fitting categorisation is a dual recognition as property and currency; in this case, cryptocurrencies are often treated as property for capital gains tax CGT purposes, similar to traditional assets. CGT is a rich area for regulating crypto assets, but a progressive approach should consider the holding term. Most African nations are struggling to achieve CGT tax objectives due to the failure to recognise virtual currencies as foreign or local currency. Challenges such as lack of support, price volatility, and limited trade usage aggravate the issue. Again, cryptocurrencies are subject to VAT and sales taxation, with profits from sales taxed like other assets. For effective taxation, governments must identify supply loci for transactions. If not, crypto trading sites and exchange platforms will remain undeclared agents for VAT treatment.

First, Kenya's law does not classify cryptocurrencies as legal tenders, causing regulatory concerns. In 2019, lawmakers amended the Income Tax Act to create a digital service tax on crypto transactions. In 2023, the Kenya Revenue Authority will charge 3% on digital asset transfers, aiming to improve compliance and address concerns for digital asset traders. Second, Nigeria's Finance Bill, signed in May 2023, classifies cryptocurrencies as chargeable assets under

the Capital Gains Act, but they are considered personal possessions. The legislation aims to strengthen ecommerce taxation and modernise the fiscal structure. It imposes a 10% tax on digital asset sales, including cryptocurrency. Third, South Africa has no crypto taxation law, but existing guidelines cover digital asset taxation. The South African Revenue Service (SARS) plans to apply standard income tax rules to cryptocurrencies, expecting taxpayers to declare gains or losses as part of their taxable income. The current VAT treatment of cryptocurrencies is pending policy clarity, potentially leading to VAT apportionment issues. Achieving regional coordination requires harmonising policy frameworks due to concentrated stakeholders, regulatory arbitrage, and varying openness to ecosystem development. A continental standard is needed to unify AML/CTF legislation and regulations.

References

1. IMF. "Fintech and Crypto Assets in the Central African Republic." International Monetary Fund, 2023.
<https://www.elibrary.imf.org/downloadpdf/journals/002/2023/156/article-A001-en.xml>.
2. Chainalysis. "How Crypto Meets Economic Needs in Sub-Saharan Africa." Chainalysis, September 29, 2022.
<https://www.chainalysis.com/blog/sub-saharan-africa-cryptocurrency-geography-report-2022-preview/#:~:text=Sub%2DSaharan%20Africa>.
3. Sami, Mina, and Wael Abdallah. "Does Cryptocurrency Hurt African Firms?" SSRN Electronic Journal, 2022. <https://doi.org/10.2139/ssrn.4038109>.
4. Kidunda, Erasto, and Dickson Pastory. "Examination of Factors Influencing the Intention to Adopt Cryptocurrencies In Tanzania." Business Education Journal 11, no. 1 (January 24, 2022): 1–11. <https://doi.org/10.54156/cbe.bej.11.1.324>.
5. Onyekwere, Eucharia, Francisca Nonyelum Ogwueleka, and Martins Ekata Irhebhude. "Adoption and Sustainability of Bitcoin and the Blockchain Technology in Nigeria." International Journal of Information Technology, June 8, 2023, 1–12.
<https://doi.org/10.1007/s41870-023-01336-1>.
6. Chima, James , and Chima Agu. "Impact of Cryptocurrency on Africa's Economy," 2020. https://www.researchgate.net/publication/347089003_Impact_of_cryptocurrency_on_Africa's_economy.
7. Ram, Asheer Jaywant. "Taxing Bitcoin : It's a Bit Cryptic." Tax Talk 2018, no. 68 (August 21, 2018). <https://hdl.handle.net/10520/EJC-c47e4b7b4>.
8. Prewett, Kyleen, Roger Dorsey, and Gaurav Kumar. "A Primer on Taxation of Investment in Cryptocurrencies," 2020.
<https://www.civicresearchinstitute.com/online/PDF/JTI-3604-01-Cryptocurrencies.pdf>.
9. Yudvir, Singh, Pratista. "A Critical Analysis of the Effectiveness of Taxation Regulation of Cryptocurrencies in Mitigating the Facilitation of Tax Evasion in South Africa.," January 2021. <https://researchspace.ukzn.ac.za/handle/10413/20563>.

10. Baer, Katherine, Ruud de Mooij, Shafik Hebous, and Michael Keen. “Crypto Poses Significant Tax Problems—and They Could Get Worse.” IMF, July 5, 2023.
<https://www.imf.org/en/Blogs/Articles/2023/07/05/crypto-poses-significant-tax-problems-and-they-could-get-worse>.
11. Igwebuikwe, Agbo Elias, and E O Nwadior. “Cryptocurrency and the African Economy,” December 15, 2023, 84–100.
https://www.researchgate.net/publication/342927327_CRYPTOCURRENCY_AND_THE_AFRICAN_ECONOMY.
12. Pantin, Lynnise. “Financial Inclusion, Cryptocurrency, and Afrofuturism,” 2023.
https://scholarship.law.columbia.edu/cgi/viewcontent.cgi?article=5201&context=faculty_scholarship.
13. BIS. “BIS Papers No 138 Financial Stability Risks from Cryptoassets in Emerging Market Economies Consultative Group of Directors of Financial Stability (CGDFS),” 2023.
<https://www.bis.org/publ/bppdf/bispap138.pdf>.
14. Reddy, Eveshnie, and Vivienne Lawack. “An Overview of the Regulatory Developments in South Africa Regarding the Use of Cryptocurrencies.” *South African Mercantile Law Journal* 31, no. 1 (2019): 1–28.
<https://www.jutajournals.co.za/category/samlj/samlj-v31-i1/>.
15. Fuje, Habtamu, Saad Quayyum, and Tebo Molosiwa. “Africa’s Growing Crypto Market Needs Better Regulations.” IMF, November 22, 2022.
<https://www.imf.org/en/Blogs/Articles/2022/11/22/africas-growing-crypto-market-needs-better-regulations#:~:text=Only%20one%2Dquarter%20of%20countries>.
16. Baer, Katherine, Ruud A. de Mooij, Shafik Hebous, and Michael Keen. “Taxing Cryptocurrencies.” IMF, 2023.
<https://www.imf.org/en/Publications/WP/Issues/2023/06/30/Taxing-Cryptocurrencies-535510?cid=bl-com-WPIEA2023143>.
17. Chan, Timothy. “The Nature of Property in Cryptoassets.” *Legal Studies*, January 18, 2023, 1–19. <https://doi.org/10.1017/lst.2022.53>.
18. Remeur, Cécile. “Understanding Crypto Assets: An Overview of Blockchain Technology’s Uses and Challenges.” European Parliament, 2023.

[https://www.europarl.europa.eu/RegData/etudes/BRIE/2023/757580/EPRS_BRI\(2023\)757580_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2023/757580/EPRS_BRI(2023)757580_EN.pdf).

19. Pembroke-Birss, Jack, and Michael Sinclair. “Cryptocurrencies Are Property Capable of Being Held on Trust, New Zealand High Court Holds.”
<https://www.nortonrosefulbright.com/en/knowledge/publications/d6ea37bd/cryptocurrencies-are-property-capable-of-being-held-on-trust-new-zealand-high-court-holds>, 2020.
<https://www.nortonrosefulbright.com/en/knowledge/publications/d6ea37bd/cryptocurrencies-are-property-capable-of-being-held-on-trust-new-zealand-high-court-holds#:~:text=In%20Ruscoe%20v%20Cryptopia%20Ltd>.
20. Izzah, Wan Nur, and Wan Muhamad Fokri. “Classification of Cryptocurrency: A Review of the Literature.” *Turkish Journal of Computer and Mathematics Education (TURCOMAT)* 12, no. 5 (April 11, 2021): 1353–60.
<https://doi.org/10.17762/turcomat.v12i5.2027>.
21. Ram, Asheer Jaywant. “Taxation of the Bitcoin: Initial Insights through a Correspondence Analysis.” *Meditari Accountancy Research* 26, no. 2 (June 4, 2018): 214–40.
<https://doi.org/10.1108/medar-10-2017-0229>.
22. Mills, Devin J., and Lia Nower. “Preliminary Findings on Cryptocurrency Trading among Regular Gamblers: A New Risk for Problem Gambling?” *Addictive Behaviors* 92, no. 1 (May 2019): 136–40. <http://dx.doi.org/10.1016/j.addbeh.2019.01.005>.
23. Delfabbro, Paul, Daniel King, and Jennifer Williams. “Cryptocurrency Trading, Gambling and Problem Gambling.” *Addictive Behaviors* 122 (June 2021): 107021.
<https://doi.org/10.1016/j.addbeh.2021.107021>.
24. Arfwidsson, Autilia, and Louise Fjord Kjærsgaard. “Taxation of Cryptocurrencies from the Danish and Swedish Perspectives.” *Intertax* 47, no. Issue 6/7 (July 1, 2019): 620–34.
<https://doi.org/10.54648/taxi2019061>.
25. Tarver, Evan. “Income Tax vs. Capital Gains Tax: Which Is More?” Investopedia, 2019.
<https://www.investopedia.com/ask/answers/052015/what-difference-between-income-tax-and-capital-gains-tax.asp>.

26. English, Trevor. "6 Things Tax Professionals Need to Know about Cryptocurrency Taxes." Thomson Reuters Institute, October 17, 2023.
<https://www.thomsonreuters.com/en-us/posts/tax-and-accounting/cryptocurrency-taxes/>.
27. Auer, Raphael, and David Tercero-Lucas. "Distrust or Speculation? The Socioeconomic Drivers of U.S. Cryptocurrency Investments." *Journal of Financial Stability* 62 (October 2022): 101066. <https://doi.org/10.1016/j.jfs.2022.101066>.
28. Avi-Yonah, Reuven S., and Mohanad Salaimi. "A New Framework for Taxing Cryptocurrencies." *SSRN Electronic Journal*, 2022.
<https://doi.org/10.2139/ssrn.4071391>.
29. LOC. "Regulation of Cryptocurrency in Selected Jurisdictions." Library of Congress, 2018. <https://tile.loc.gov/storage-services/service/l1/llgldr/2018298388/2018298388.pdf>.
30. OECD. "Taxing Virtual Currencies an Overview of Tax Treatments and Emerging Tax Policy Issues," 2020.
<https://www.oecd.org/tax/tax-policy/taxing-virtual-currencies-an-overview-of-tax-treatments-and-emerging-tax-policy-issues.pdf>.
31. Bradley, Ian. "How Taxes on Cryptocurrencies and Digital Assets Will Soon Take Shape." *www.ey.com*, 2022.
https://www.ey.com/en_gl/tax/how-taxes-on-cryptocurrencies-and-digital-assets-will-soon-take-shape.
32. Wilwerding, Joe. "Cryptocurrency Taxation: Suggested Revisions on Current Cryptocurrency Taxation: Suggested Revisions on Current Treatment Treatment," 2019.
https://digitalcommons.unomaha.edu/cgi/viewcontent.cgi?article=1074&context=university_honors_program.
33. Huang, Robin Hui, Hui Deng, and Aiden Foon Lok Chan. "The Legal Nature of Cryptocurrency as Property: Accounting and Taxation Implications." *Computer Law & Security Review* 51 (November 1, 2023): 105860.
<https://doi.org/10.1016/j.clsr.2023.105860>.
34. Indian Kanoon. "Union of India - Section Section 9 in the Income Tax Act, 1961." *iKanoon*, 2023. <https://indiankanoon.org/doc/1369261/>.

35. Indian Kanoon. "Union of India - Subsection Section 2(24) in the Income Tax Act, 1961." iKanoon, 2023. <https://indiankanoon.org/doc/1932095/>.
36. Indian Kanoon. "Commissioner of Income Tax, Madras vs G.R. Karthikeyan, Coimbatore on 22 April, 1993." iKanoon, April 22, 1993. <https://indiankanoon.org/doc/646914/>.
37. Gupta, Vidushi, Yeesha Shriyan, and Aashima Sawhney. "TAXING CRYPTOCURRENCIES the Concept, the Challenges, and the Required Changes Working Paper |," 2022. https://vidhilegalpolicy.in/wp-content/uploads/2022/05/20220527_WP_Taxing-Cryptocurrencies_VCLP.pdf.
38. Library of Congress. "Taxation of Cryptocurrency Block Rewards in Selected Jurisdictions," 2021. <https://tile.loc.gov/storage-services/service/lj/llglrd/2021666100/2021666100.pdf>.
39. Bharucha, Justin M. "How Cryptocurrencies Are Taxed in India." Forbes Advisor INDIA, October 31, 2022. <https://www.forbes.com/advisor/in/investing/cryptocurrency/cryptocurrency-tax-in-india/>.
40. Subburaj, Vikram. "Navigating the Complexities of Crypto Taxation in India." mint, March 25, 2023. <https://www.livemint.com/market/cryptocurrency/navigating-the-complexities-of-crypto-taxation-in-india-11679764005839.html>.
41. Subburaj, Vikram. "Tax Filing for Crypto Investors: All You Need to Know." The Economic Times, July 31, 2023. <https://economictimes.indiatimes.com/markets/cryptocurrency/tax-filing-for-crypto-investors-all-you-need-to-know/articleshow/102195186.cms>.
42. Kagan, Julia. "Value-Added Tax - VAT Definition." Investopedia, 2019. <https://www.investopedia.com/terms/v/valueaddedtax.asp>.
43. Edusma, Rommel Rhino. "Cryptocurrency Accounting and Taxation." PwC, 2022. <https://www.pwc.com/ph/en/tax/tax-publications/taxwise-or-otherwise/2022/cryptocurrency-accounting-and-taxation.html>.

44. Wolfers, Lachlan. “Future of VAT: Continued Evolution and Increasing Significance.” *International Tax Review*, no. *International Tax Review*; (January 2019).
<https://www.proquest.com/openview/185b18d3d35a3703e4856557eff54e78/1?pq-origsite=gscholar&cbl=30282>.
45. InfoCuria Case-law. “C-264/14 - Hedqvist.” *curia.europa.eu*, 2015.
<https://curia.europa.eu/juris/liste.jsf?num=C-264/14>.
46. Porporatto, Pablo. “Implications of Crypto Assets in the Value-Added Tax, Income Tax and Property Taxes.” *www.ciat.org*, December 10, 2020.
<https://www.ciat.org/ciatblog-los-cripto-activos-en-los-impuestos-al-valor-agregado-a-las-rentas-y-a-los-patrimonios/?lang=en>.
47. The Norwegian Tax Administration. “Tax and VAT Relating to Bitcoin and Other Virtual Currencies.” The Norwegian Tax Administration, 2022.
<https://www.skatteetaten.no/en/business-and-organisation/reporting-and-industries/industries-special-regulations/internet/tax-and-vat-on-virtual-currencies/#:~:text=The%20use%20of%20virtual%20currency>.
48. Deloitte. “Cryptocurrency - What’s VAT Got to Do with It?” Deloitte Ireland, 2023.
<https://www2.deloitte.com/ie/en/pages/tax/articles/cryptocurrency-and-vat.html>. LOC. “Regulation of Cryptocurrency in Selected Jurisdictions.” Library of Congress, 2018.
<https://tile.loc.gov/storage-services/service/lj/llglrd/2018298388/2018298388.pdf>.
49. Kabwe, Ruddy. “The VAT Treatment of Cryptocurrencies in South Africa: Lessons from Australia.” *Obiter* 41, no. 4 (March 24, 2021): 767–86.
<https://doi.org/10.17159/obiter.v41i4.10487>.
50. Wolf, Redmar. “Bitcoin and EU VAT,” 2014.
https://research.vu.nl/ws/portalfiles/portal/1076219/Bitcoin_and_EU_VAT.PDF.
51. Goldstein, David. “Plus and Miners: Cryptocurrencies and VAT.” BKL London, UK, March 12, 2018. <https://www.bkl.co.uk/insights/cryptocurrencies-vat/>.
52. Low Income Tax Reform Group. “Cryptoassets and Tax | Low Incomes Tax Reform Group.” *www.litr.org.uk*, 2023.
<https://www.litr.org.uk/tax-guides/savers-property-owners-and-other-tax-issues/cryptoassets-and-tax>.

53. Krocová, Denisa . “BDO Indirect Tax News Issue 2/2022 - April 2022.” www.bdo.global, 2022.
<https://www.bdo.global/en-gb/microsites/tax-newsletters/indirect-tax-news/issue-2-2022/czech-republic-guidance-issued-on-the-vat-treatment-of-cryptocurrency-transactions>.
54. Williams, Patricia, and Rob Hare. “Cryptocurrency and Tax In South Africa,” 2018.
<https://bowmanslaw.com/wp-content/uploads/2018/11/Session-3-Cryptocurrency-and-Tax.pdf>.
55. KPMG. “The Future of Indirect Taxation in a Digital World - KPMG Portugal.” KPMG, November 10, 2022.
<https://kpmg.com/pt/en/home/insights/2022/09/proposition-4-crypto-nfts-and-the-meta-verse.html>.
56. Mans, Elizma. “An Analysis of the Value Added Tax Implications on Crypto Currency Transactions,” 2019, 1–63.
<https://repository.nwu.ac.za/bitstream/handle/10394/33018/Mans%20E.pdf?sequence=1&isAllowed=y>.
57. Bal, Aleksandra. “VAT Treatment of Services Provided by Crypto Exchange Platforms.” news.bloombergtax.com, 2022.
<https://news.bloombergtax.com/daily-tax-report-international/vat-treatment-of-services-provided-by-crypto-exchange-platforms>.
58. Scarcella, Luisa. “Dissertation Summary “Taxing Cryptocurrencies. The VAT Treatment of Bitcoin as a Case-Study,”” 2020.
https://www.eatlp.org/sites/default/files/taxThesisAwards/Scarcella_%20Dissertation%20Summary.pdf.
59. IMF. “F.18 the Recording of Crypto Assets in Macroeconomic Statistics for Global Consultation.” International Monetary Fund, 2022.
https://www.imf.org/external/pubs/ft/gfs/gfsac/pdf/Recording_Crypto_Assets_MacroStats_July_22.pdf.
60. Greeff, Cecileen. “An Investigation into the Output Tax Consequences of Bitcoin Transactions for a South African Value-Added Tax Vendor.” South African Journal of Economic and Management Sciences 22, no. 1 (April 25, 2019).
<https://doi.org/10.4102/sajems.v22i1.2162>.

61. African Tax Administration Forum. “Value Added Tax Technical Note on Digital Financial Assets (Cryptocurrencies),” 2020.
https://events.ataftax.org/media/documents/83/documents/vat-technical-n_49843292.pdf
62. Geral, David, Irene Muthoni, and Brian Kalule. “Unscrambling Blockchain: Regulatory Frameworks in Cryptocurrency,” 2018.
https://bowmanslaw.com/wp-content/uploads/2018/09/Unscrambling-Blockchain_Session-1_Regulatory-Frameworks.pdf.
63. Freeman, Jason B. “Kenya and Cryptocurrency.” Freeman Law, November 21, 2020.
<https://freemanlaw.com/cryptocurrency/kenya/>.
64. KRA. “DIGITAL SERVICE TAX,” 2021.
<https://kra.go.ke/images/publications/Brochure-Digital-Service-Tax-Website.pdf>.
65. Coghlan, Jesse. “Kenya Considers Tax on Crypto, NFT Transfers and Online Influencers.” Cointelegraph, May 5, 2023.
<https://cointelegraph.com/news/kenya-considers-tax-on-crypto-nft-transfers-and-online-influencers>.
66. Abiodun, Bolu . “African Countries That Tax Crypto.” Techpoint, May 11, 2023.
<https://techpoint.africa/2023/05/11/african-countries-that-tax-crypto/#:~:text=According%20to%20the%20country>.
67. Musau, Dennis . “The New 3% Digital Assets Tax Taking Effect on September 1 and How Will It Affect You.” Citizen Digital, August 31, 2023.
<https://www.citizen.digital/business/the-new-3-digital-assets-tax-taking-effect-on-september-1-and-how-will-it-affect-you-n326458>.
68. Republic of Kenya. Capital Markets (Amendment) Legislative Proposal 2023 (2023).
<https://bitcoinke.io/wp-content/uploads/2023/03/Capital-Markets-Crypto-Amendment-Bill-2023.pdf>.

69. Republic of Kenya. The Finance Act, 2023 No. 4 of 2023, 4 § (2023).
<https://kra.go.ke/images/publications/The-Finance-Act-2023.pdf>.
70. Republic of Kenya. Report on the Consideration of the Finance Bill (National Assembly Bill No.14 of 2023). (2023).
http://www.parliament.go.ke/sites/default/files/2023-06/Report%20on%20the%20Finance%20Bill%2C%202023_2.pdf.
71. Ahonen, Elias. “Best and Worst Countries for Crypto Taxes — plus Crypto Tax Tips.” CoinTelegraph, April 5, 2023.
<https://cointelegraph.com/magazine/best-worst-countries-crypto-taxes-crypto-tax-tips/>.
72. Internal Revenue Service. “Digital Assets | Internal Revenue Service.” www.irs.gov, 2023.
<https://www.irs.gov/businesses/small-businesses-self-employed/digital-assets>.
73. Sahel Ahyai Assar, “Taxation of Cryptocurrencies in Anticipation of the IRS’s Call.,” Bloomberg Tax and Accounting, 2023,
<https://www.bipc.com/assets/PDFs/Taxation%20of%20Cryptocurrencies%20%E2%80%93%20In%20Anticipation%20of%20the%20IRS%20Call%20%E2%80%93%20Bloomberg%20Tax.pdf>.
74. IRS. “26 CFR 1.61-1: Gross Income. (Also §§ 61, 451, 1011.): Rev. Rul. 2019-24,” 2019.
<https://www.irs.gov/pub/irs-drop/rr-19-24.pdf>.
75. Frankenfield, Jake. “What Is a Crypto Airdrop?” Investopedia, 2022.
<https://www.investopedia.com/terms/a/airdrop-cryptocurrency.asp>.
76. IRS. “26 CFR 1.61-1: Gross Income. (Also §§ 61, 451, 1011.): Rev. Rul. 2019-24,” 2019.
<https://www.irs.gov/pub/irs-drop/rr-19-24.pdf>.
77. Business Reporter, “Kenyan Blockchain Association Challenges Legality of New Digital Asset Tax - Kenyan Wallstreet,” Kenyan Wallstreet, September 1, 2023,
<https://kenyanwallstreet.com/kenyan-blockchain-association-challenges-legality-of-new-digital-asset-tax/>
78. Kaaru, Steve. “Kenyan President Signs Finance Bill, Demands 3% Tax from Digital Asset Traders.” CoinGeek, July 5, 2023.

<https://coingeek.com/kenyan-president-signs-finance-bill-demands-3-tax-from-digital-asset-traders/>.

79. Carey, Penn, and David Shakow. “The Tax Treatment of Tokens: What Does It Betoken? The Tax Treatment of Tokens: What Does It Betoken?,” 2017.
https://scholarship.law.upenn.edu/cgi/viewcontent.cgi?article=2944&context=faculty_scholarship.
80. IRS. “Instructions for Form 4684.” Internal Revenue Service, 2022.
<https://www.irs.gov/pub/irs-pdf/i4684.pdf>.
81. Abati, Adedoja Abraham. “Cryptocurrency and Blockchain in Nigeria; Circumstances Surrounding the Validity or Otherwise of Their Transactions.” Social Science Research Network. Rochester, NY, October 1, 2023. <https://doi.org/10.2139/ssrn.4589534>.
82. House of Representatives Committee on Finance. Invitation to a One Day Public Hearing and Submission of Memoranda on the 2022 Finance Bill (2023).
https://pwc nigeria.typepad.com/files/2022-finance-bill_hor.pdf.
83. Coinbase. “Understanding Crypto Taxes,” 2023.
<https://www.coinbase.com/learn/crypto-basics/understanding-crypto-taxes#:~:text=If%20you're%20holding%20crypto,you%20have%20a%20taxable%20event>.
84. Nwaokocha, Amaka. “Nigeria to Tax Crypto, Digital Assets 10% on Capital Gains — Experts React.” Cointelegraph, June 10, 2023.
<https://cointelegraph.com/news/nigeria-to-tax-crypto-digital-assets-10-on-capital-gains-experts-react>.
85. Budget Office of the Federation. “Finance Act, 2023.” Budget Office of the Federation, June 7, 2023. <https://www.budgetoffice.gov.ng/index.php/finance-act-2023>.
86. EY. “Nigeria | Highlights of Finance Act 2023.” globaltaxnews.ey.com, 2023.
<https://globaltaxnews.ey.com/news/2023-1056-nigeria-highlights-of-finance-act-2023>.
87. Federal Inland Revenue Service. “Capital Gains Tax (CGT) – FIRS.” FIRS, 2023.
<https://www.firs.gov.ng/capital-gains-tax-cgt/>.
88. Graw, Michael. “Crypto Taxes Statistics Explained around the World in 2023.” Techopedia (blog), 2023. <https://www.techopedia.com/cryptocurrency/crypto-taxes-statistics>.

89. Coincub. “Crypto Tax Report 2023.” Coincub, June 26, 2023.
<https://coincub.com/ranking/worldwide-crypto-tax-2023/>.
90. SEC Nigeria. “Statement on Digital Assets and Their Classification and Treatment.” The Securities and Exchange Commission, Nigeria, September 14, 2020.
<https://sec.gov.ng/statement-on-digital-assets-and-their-classification-and-treatment/>.
91. SEC Nigeria. “Press Release on Cryptocurrencies.” The Securities and Exchange Commission, Nigeria, February 11, 2021.
<https://sec.gov.ng/press-release-on-cryptocurrencies/>.
92. SEC Nigeria. New Rules on Issuance, Offering Platforms and Custody of Digital Assets (2022).
93. Oni, Simeon Olaosebikan, and Godwin Emmanuel Oyedokun. “Adopting Cryptocurrency in Nigeria: Tax, Legal and Financial Implications,” 2023, 1–12.
https://www.researchgate.net/publication/373598276_Adopting_Cryptocurrency_in_Nigeria_Tax_Legal_and_Financial_Implications.
94. Rose, Chris. “The Evolution of Digital Currencies: Bitcoin, a Cryptocurrency Causing a Monetary Revolution.” *International Business & Economics Research Journal (IBER)* 14, no. 4 (July 14, 2015): 617. <https://doi.org/10.19030/iber.v14i4.9353>.
95. Amaka Nwaokocha, “Nigerian Crypto Tax Move Is ‘Premature’ — Local Stakeholders,” *Cointelegraph*, July 7, 2023,
<https://cointelegraph.com/news/nigerian-crypto-tax-move-is-premature-local-stakeholders>.
96. Ariwoola, Abdulrasaq. “The State Adoption of Cryptocurrencies in Nigeria: The Place of Taxation as a Regulatory Instrument.” *Ssrn.com*, July 10, 2023.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4532562.
97. Chime, Emeka , and Emmanuel Akpeme. “Nigeria’s Finance Act 2023: Insights Series.” PWC, 2023. <https://www.pwc.com/ng/en/assets/pdf/nigeria-finance-act-2023.pdf>.
98. Shestak, Viktor, Alla Kiseleva, and Yuriy Kolesnikov. “Taxation Issues for Digital Financial Assets.” *Social Science Computer Review* 1, no. 1 (March 30, 2021): 089443932110039.
<https://doi.org/10.1177/08944393211003919>.

99. CV VC. “African Blockchain Report.” www.cvvc.com, 2023.
<https://www.cvvc.com/insights#africareport>.
100. FSCA. “South Africa’s Crypto Assets Market Study 2,” 2022.
<https://www.fsc.co.za/Documents/Crypto%20Market%20Study.pdf>.
101. South African Revenue Service. “6 April 2018 - SARS’s Stance on the Tax Treatment of Cryptocurrencies | South African Revenue Service.” SARS, 2018.
<https://www.sars.gov.za/media-release/6-april-2018-sarss-stance-on-the-tax-treatment-of-cryptocurrencies/>.
102. Moosa, F. “Cryptocurrencies: Do They Qualify as ‘Gross Income?’” Journal for Juridical Science 44, no. 1 (August 23, 2019): 10–34.
<https://doi.org/10.18820/24150517/jjs44.i1.1>.
103. South African Revenue Service. Income Tax Return for Individuals (Income Tax Act. No. 58 of 1962, as amended) (2021).
https://www.sars.gov.za/wp-content/uploads/Docs/TaxSeason/2021/SARS_2021_LookFeel_ITR12_v2021.00.10.pdf.
104. South African Revenue Service. “Crypto Assets & Tax | South African Revenue Service.” SARS, August 19, 2021.
<https://www.sars.gov.za/individuals/crypto-assets-tax/#:~:text=Following%20normal%20income%20tax%20rules>.
105. Vumazonke, Namhla, and Shaun Parsons. “An Analysis of South Africa’s Guidance on the Income Tax Consequences of Crypto Assets.” South African Journal of Economic and Management Sciences 26, no. 1 (February 28, 2023).
<https://doi.org/10.4102/sajems.v26i1.4832>.
106. Lacapra, Emi. “An Overview of the Cryptocurrency Regulations in South Africa.” Cointelegraph, 2022.
<https://cointelegraph.com/learn/cryptocurrency-regulations-in-south-africa>.

107. Republic of South Africa. “Section 2 of the South African VAT Act.” Government Gazette Staatskoerant, 1991.
https://www.gov.za/sites/default/files/gcis_document/201505/act-89-1991s.pdf.
108. Kagwe, Ruddy. “The Vat Treatment of Cryptocurrencies in South Africa: Lessons from Australia,” 2023.
https://repository.up.ac.za/bitstream/handle/2263/82325/Kabwe_Ruddy_2020.pdf?sequence=1&isAllowed=y.
109. Hendricks, Rodney Francois. “Value-Added Tax (VAT) Implications within the South African Environment Arising from the Classification of Cryptocurrencies as Financial Services under the VAT Act.” Open.uct.ac.za, 2022. <http://hdl.handle.net/11427/37272>.
110. Republic of South Africa. Income Tax Act., 22 § (1986).
https://www.gov.za/sites/default/files/gcis_document/201503/act-65-1986.pdf.
111. Fay, Ian, and Alex Chang. “More Guidance on Cryptoassets – Hard Forks and Airdrops Explained | Tax Alert | February 2021.” Deloitte New Zealand, 2021.
<https://www2.deloitte.com/nz/en/pages/tax-alerts/articles/guidance-on-cryptoassets.html>
112. Moran, Joseph D. “The Impact of Regulatory Measures Imposed on Initial Coin Offerings in the United States Market Economy,” 2018.
<https://core.ac.uk/download/pdf/232608925.pdf>.
113. Kokalitcheva, Kia. “ICOs Face Regulatory Scrutiny in a Growing Number of Countries.” Axios, September 6, 2017. <https://www.axios.com/2017/12/15/icos-face-regulatory-scrutiny-in-a-growing-number-of-countries-1513305298>.
114. Kjærsgaard, Louise Fjord. “Blockchain Technology and the Allocation of Taxing Rights to Payments Related to Initial Coin Offerings.” Intertax 48, no. Issue 10 (September 1, 2020): 879–903. <https://doi.org/10.54648/taxi2020088>.

115. Goel, Nimish, and Ghaurav Shivhare. “How-Are-Crypto-ICOs-Taxed.” Dhruva Consultants, 2023.
<https://dhruvaconsultants.com/wp-content/uploads/2022/09/How-are-Crypto-ICOs-Taxed.pdf>.
116. GOV.UK. “Capital Gains Tax.” GOV.UK, 2023.
<https://www.gov.uk/capital-gains-tax/gifts>.
117. Department of the Treasury Internal Revenue Service. “Survivors, Executors, and Administrators,” 2022. <https://www.irs.gov/pub/irs-pdf/p559.pdf>.
118. ATO.gov. “Loss or Theft of Crypto Assets.” www.ato.gov.au, 2023.
<https://www.ato.gov.au/individuals-and-families/investments-and-assets/crypto-asset-investments/transactions-acquiring-and-disposing-of-crypto-assets/loss-or-theft-of-crypto-assets>.
119. HM Revenue & Customs. “CRYPTO22400 - Cryptoassets for Individuals: Capital Gains Tax: Losing Private Keys - HMRC Internal Manual - GOV.UK.” www.gov.uk, 2021.
<https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto22400>.
120. National Assembly Bills. Finance Bill 2023 (2023).
http://www.parliament.go.ke/sites/default/files/2023-05/THE%20FINANCE%20BILL%202C%202023_compressed.pdf.
121. African Union. “African Union Union Africaine União Africana the Digital Transformation Strategy for Africa (2020-2030),” 2023.
<https://au.int/sites/default/files/documents/38507-doc-dts-english.pdf>.
122. PwC. “PwC Global Crypto Regulation Report 2023,” December 19, 2022.
<https://www.pwc.com/gx/en/new-ventures/cryptocurrency-assets/pwc-global-crypto-regulation-report-2023.pdf>.
123. Martinčević, Ivana, Vesna Sesar, Krešimir Buntak, and Ivan Miloloža. “Accounting and Tax Regulation Cryptocurrencies.” *Interdisciplinary Description of Complex Systems* 20, no. 5 (October 31, 2022): 640–61. <https://doi.org/10.7906/indec.20.5.9>.

124. Morton, D. "The Future of Cryptocurrency: An Unregulated Instrument in an Increasingly Regulated Global Economy," 2021.
<https://lawcommons.luc.edu/cgi/viewcontent.cgi?article=1219&context=lucilr>.
125. Andersson, Erik, and Mattias Dahlberg. "A Comparative Analysis of the Taxation of Crypto Currencies," 2022. <https://www.diva-portal.org/smash/get/diva2:1664768/FULLTEXT01.pdf>.
126. Cobanoglu, Cihan, and Valentina Della Corte. *Advances in Global Services and Retail Management: Volume 2*. Anahei Publishing, 2021.
<https://doi.org/10.5038/9781955833035>.
127. Silva, Elcelina Carvalho, and Miguel Mira da Silva. "Research Contributions and Challenges in DLT-Based Cryptocurrency Regulation: A Systematic Mapping Study." *Journal of Banking and Financial Technology* 6, no. 1 (January 11, 2022).
<https://doi.org/10.1007/s42786-021-00037-2>.
128. Al-Tawil, Tareq Na'el. "Anti-Money Laundering Regulation of Cryptocurrency: UAE and Global Approaches." *Journal of Money Laundering Control* 26, no. 6 (September 5, 2022). <https://doi.org/10.1108/jmlc-07-2022-0109>.
129. Mandeng, Ousmène. "Basic Principles for Regulating Crypto-Assets," January 9, 2019.
<https://www.lse.ac.uk/iga/assets/documents/research-and-publications/OJM-Basic-principles-for-regulating-crypto-assets.pdf>.