



**POLICY BRIEF ON LEGISLATION ON BLOCKCHAIN TECHNOLOGY**

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## INTRODUCTION

Blockchain technology is a decentralized, distributed ledger that records the provenance of a digital asset. This emerging technology, which enables direct transactions within a ledger without need for a central authority or trusted intermediary, has the potential to drastically change existing economic models and enable the creation of markets and products previously unavailable or unprofitable. A 2017, report by McKinsey estimates that in 2014 to 2015, investors put in over \$800 million in blockchain related start-ups which shows how revolutionary this technology may be. In considering the potential benefits of blockchain however, organizations and governments must also consider the associated risks and how they can be managed.

The key characteristics of blockchain including the lack of a centralized authority present challenges for the existing legal and regulatory frameworks. Most of these challenges stem from the fact that we live in a world where centralized governance and control is the norm whereas the main idea behind the original instance of blockchain was to enable peer to peer transactions without the need for an intermediary.

## THE GLOBAL PERSPECTIVE

The policy challenges associated blockchain technologies are mainly; lack of a regulatory framework and tax codes that do not cover the market. The World Bank suggests the following general guidelines:

- Give the new technologies space, and avoid imposing restrictive legislation before initial ambiguities are resolved.
- If activities are not yet covered by the tax code or are undertaken in special economic zones, the implicit subsidy and its temporary nature should be calculated and made public. Consumers should also be warned about risks, such as the risks associated with volatile cryptocurrencies.
- If these technologies become successful, they should be integrated into the formal economy. Tax codes and regulations should be adjusted, so that both old and new technologies operate on a level playing field.
- Innovate as government. Blockchain technologies provide a stimulus to further digitize government services.

*Table 1: Blockchain and cryptocurrency legislation in various countries*

|    | Country | Regulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. | Canada  | Cryptocurrencies are not recognized as legal tender in Canada but rather are treated as commodities. They are therefore primarily regulated under the securities laws. The Canadian tax authorities hold the position that a cryptocurrency is not a currency for income tax purposes, rather it is akin to a commodity. Subsequently, the acquisition of and transacting in cryptocurrencies is treated as for a commodity for instance; If the cryptocurrency is acquired through “mining” activities of a commercial nature, the acquirer will be required to report business income for the year determined with reference to the value of the mined cryptocurrency.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 2. | China   | The primary regulatory body policing cryptocurrencies is the central bank, the People’s Bank of China (PBOC). Bitcoin has not been recognized as a fiat currency by the regulatory authorities, instead, it is being treated as a kind of virtual commodity. In June 2018, China Banking and Insurance Regulatory Commission (the “CBIRC”) issued a working paper, which stated that “the sovereign cryptocurrency shall be deemed as a legitimate digital currency issued by the PBOC”, which “has value as a fiat currency and can be used as a medium of exchange while the non-sovereign cryptocurrency shall not be regarded as ‘currency’; it’s merely a digital symbol programmed and issued by market participants with agreed protocols. Currently there is no express provision of tax specifically applicable to cryptocurrencies. However, if cryptocurrencies are traded as commodities, the transaction may be imposed with value-added tax for the sale of intangible assets; and income tax for the capital gains when the tokens are sold if the transaction is treated as an investment. If tokens are deemed as a payment method for goods or services, then value-added tax for the sale of intangible assets will apply. There are also no reporting requirements for cryptocurrency payments. |
| 3. | Estonia | Cryptocurrencies do not possess a legal status of currency or money, but they can be accepted by natural and legal persons, as a means of exchange or payment. For personal income tax purposes, cryptocurrency is treated as property, the alienation and exchange of which gives rise to capital gains. Income from trading in cryptocurrencies is taxed as business income which, in addition to personal income tax, is also subject to social security contributions. For the purposes of VAT, cryptocurrencies are considered as the same currency as euros, etc. Thus, the usage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

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|    |        | of cryptocurrencies as remuneration is equal to the usage of legal tender and therefore out of the scope of VAT.                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 4. | France | In December 2017, France adopted a specific law to become the first country to authorize the registration and transfer of unlisted securities through the use of blockchain technology. In April 2018, a decision by France's highest administrative court (Conseil d'état) resulted in the lightening of the tax burden on profits resulting from cryptocurrency transactions by applying a flat tax rate of 19%. However, the only currency that is recognized is the euro and therefore under French law, it is impossible to require someone to accept crypto-assets as payment. |
| 5. | Japan  | Japan became the first country to have enacted a law defining crypto assets as a legal term. Under Japanese law, cryptocurrency is neither treated as money nor equated with fiat currency. The payment services act requires a person who provides virtual currency exchange services to be registered with the Financial Services Agency (FSA). Any gains realized by sale or use of crypto assets will be treated as miscellaneous income where the taxpayer is unable to utilize losses elsewhere to offset gains realized by the sale or use of crypto assets.                  |

*Source: Global Legal Group, 2019*

As seen above, many countries have still not fully regulated the blockchain industry yet as there is still no consensus on how to regulate. It can be seen however that extra focus has been put on cryptocurrencies more specifically, if they should be recognized as legal tender and how to go about taxation.

## **KENYAN CONTEXT**

Currently in Kenya, there is no form of regulation on blockchain or cryptocurrencies. Nonetheless, blockchain technology is being used in the private sector. For instance, in 2018, Twiga Foods partnered with IBM to extend their services to users by creating a blockchain-enabled finance lending platform whereby creditworthiness of the consumer was measured by analyzing their mobile money purchases. The use of blockchain technology enabled the entire lending process to be transparent to all parties.

In order to best assess the benefits and challenges associated with new technologies, the government set up a Distributed Ledger and Artificial Intelligence Task Force in March 2018. The Task Force was mandated to evaluate applications of distributed ledger and artificial intelligence (AI) in the public sector. The taskforce later published a report in July 2019 highlighting how Blockchain and AI can be leveraged to enhance Kenya's ICT adoption and development thereby improving service delivery in various sectors.

## Potential Uses of Blockchain for the Government

Blockchain technology has been implemented by different countries in various ways including:

### 1. Property transactions

Countries such as Sweden are implementing blockchain powered land registries that will enable participants of real estate transactions to be confident in the process since the ownership of the land can easily be verified and is indisputable. These include; buyers, intermediaries and even banks when borrowers use land assets as collateral. This would be useful to Kenyans in streamlining the current land registry and enhance transparency of the sale of land which buyers sometimes shy away from owing to the high cases of fraudulent transactions.

### 2. Conducting free and fair elections

In 2018, Sierra Leone became the first country in the world to verify their election results using blockchain technology. Such practice enhances trust among the citizens in the government since the blockchain was publicly available for anyone to review and validate. There is often tension in Kenya after elections and several runners of political seats often go to court disputing the election results. Using blockchain to verify the results would assure all citizens that the elections are incontestable.

### 3. In healthcare

Blockchain applications in healthcare vary from health data exchange and identity management, to drug supply chain management and insurance. One of the Big Four Pillars is Universal Health Care coverage. This initiative stands to gain from this technology by streamlining patients' data to the database and the collection of health data could also be an indicator on how healthcare should be financed.

### 4. Public Procurement

The central government could issue a token backed by the national currency. Each ministry could be issued an address and allocated tokens as part of the budget process. They would use the tokens to pay contractors for public purchases. Contractors would then redeem their tokens with the central government. This mechanism would make all purchases not only fully transparent but also instantly auditable by anyone, reducing graft.

**Overall blockchain has the following advantages:**

- Secure storage of government, citizen, and business data.
- Reduction of labor-intensive processes.
- Reduction of excessive costs associated with managing accountability.

- Reduced potential for corruption and abuse.
- Increased trust in government and online civil systems.

## **Blockchain Regulation**

It is imperative for the government to embrace the use of blockchain as the benefits to it and the country at large are numerous. The associated risks including; unemployment, privacy infringement and security related issues make regulation not only key, but mandatory.

Kenya does not have a legal framework, standards or regulations governing blockchain technology. However, blockchain technologies and developers will operate under the following existing regulatory frameworks;

## **REGULATORY FRAMEWORK**

### **Data protection and privacy**

Kenya has put in place a Data and Protection Act (2019) which is in line with the European Union's General Data Protection and Regulation (GDPR) to ensure strict limitations on how personal data is stored and saved.

### **Anti-money Laundering**

The Anti-money Laundering requirements are set out in the Proceeds of Crime and Anti-money Laundering Act. This act criminalizes the offence of money laundering and incorporates the due diligence and provides the Kenyan Government with substantial authority to fight the money laundering. The major areas of its focus are the provisions that identify money laundering as a crime and the introduction of measures to combat the respective activities, as well as to provide for the seizure and confiscation of the illegal money. The drafting of the Anti-money Laundering Act is broad and may include entities that employ blockchain technologies.

### **Taxation**

The Finance Act 2020 introduced a digital service tax (DST) to recognize income accrued from digital marketplaces. The digital service tax (DST) will be applied at 1.5 percent on the gross transaction value excluding VAT. This definition is broad enough to include a blockchain or distributed ledger technology (DLT) platform.

Regulation therefore will require input from all key stakeholders including; the CBK, the private sector and tech experts. One of the key areas that will need to be considered is if to recognize cryptocurrencies as legal tender or as a commodity/financial instrument. By doing so, legislation may then begin as then it will be possible to come up with taxation procedures for the cryptocurrencies.

For other blockchain technologies, the use of regulatory sandboxes which have been used in various parts of the world may also be employed here to assess how these innovations will play out in the market. The Capital Markets Authority (CMA) set up a sandbox in 2019 and its use can give regulators a chance to look for the most effective ways to safeguard stability while encouraging innovation. Through the sandbox, regulators may also test out use of cryptocurrency as legal tender or as a commodity as has been the case for many other countries. Additionally, owing to the cross-border nature of these transactions and operations, issues such as cross-border data flow restrictions may arise, thus the government should leverage preexisting agreements and protocols across different countries which can lay the groundwork for effective coordination on blockchain.

## **CONCLUSION**

The government should be spearheading the blockchain agenda and co-creating solutions with the private sector. Blockchain's core value proposition (increased transparency, accountability and efficiency) is directly linked to the desired core attributes of government; thus, governments will be key users of blockchain solutions.

Public private partnerships are integral in co-developing and adapting solutions that are relevant to the countries' needs and competences. The Government of Kenya has to speed up and put in place measures towards the development of blockchain relevant regulatory framework that would guard all the operations of distributed ledger technology including cryptocurrencies and bitcoins

## **RECOMMENDATION**

Effective regulation will require broader collaboration domestically (for example, drawing on authorities with responsibilities for data protection, competition, telecommunications) and internationally, given the inherent cross-border nature of many innovations thus the Institute recommends establishment of multi-sector partnerships amongst the regulators and the private sector which will facilitate a holistic approach to regulation.

There is need for the implementation of blockchain technologies in all sectors of the economy to ensure greater transparency, enhanced security and easier traceability of data.