MUNDP 2022
COMMITMENT TO DEVELOPMENT

RESEARCH REPORT

UNITED NATIONS ECONOMIC AND SOCIAL COUNCIL (ECOSOC)

THE QUESTION OF REGULATING THE CRYPTOCURRENCY MARKET

ONAT ERGIN

Basic Overview of the Issue

United Nations Secretary-General António Guterres said “For the United Nations to deliver better on our mandate in the digital age, we need to embrace technologies like blockchain that can help accelerate the achievement of Sustainable Development Goals” two years ago (Castillo). Use of cryptocurrency was a topic of discussion back then, after two years and zero efficient regulations, it’s still a topic of discussion. As a matter of fact, whether it should be regulated is up in the air.

Since its introduction in 2009, Bitcoin, the first cryptocurrency, has been used by over 45 million people all over the world. Many other forms of cryptocurrencies, such as ethereum, litecoin, and ripple, have appeared in the cryptocurrency market since the birth of bitcoin. The prices of each cryptocurrency are currently surging, and the severe volatility of their value is enticing an increasing number of consumers to the crypto market.

The commotion regarding cryptocurrency also reflects the demand for a totally free market which lacks state control and taxes. The mistrust of governments can be portrayed with different examples such as conspiracy theories or market demand. For instance, the increasing mistrust of American government resulted in conspiracy theories about Area 51 and assassination of Kennedy. Likewise, the surging mistrust of Turkish government during pandemic caused extremely volatile currency in the last months of 2021, making Turkish Lira more volatile than Bitcoin. Before bitcoin, those citizens with mistrust of their governments would be expected to invest in forex. After bitcoin, citizens gained the chance to secure their money as a currency which none of the governments have control over, thus this created an image of economic freedom. However, this demand in cryptocurrency markets was detrimental for governments because of mainly two reasons: they would have less authority and less economic power. First of all, as transactions could be completed over bitcoin, governments won’t be able to monitor cash flow, causing government authorization to be meaningful and harming government authority. Secondly, as the demand for bitcoin increase, the demand for local currencies would decrease which would cause local currency to depreciate, thus countries’ economic power would be reduced. Moreover, taxation would be problematic as cash flow becomes difficult to monitor, which also reduces governments’ economic power.

The impact of cryptocurrency on society has been both positive and unfavorable. Cryptocurrency has been popular due to its simple transactions, which are made possible by using blockchain technology as a transaction base and cryptography to provide security. The volatility of cryptocurrencies, in which the value of the coin rises and falls dramatically, and the anonymity of users during transactions are two of its most distinctive features. It is *almost* impossible to examine the histories or counterfeits of transactions because they are recorded in a public ledger.

However, as bitcoin has become more widely used, illegal activities such as money laundering, concealing the source of funds, and tax evasion have become more frequent. As previously stated, preventing or detecting these illicit activities is particularly difficult because to the anonymity of bitcoin users and the difficulty of tracing transaction traces. Criminals take advantage of the issues surrounding bitcoin in the same way that ordinary people do. Although governments in various countries have taken steps to address this issue by improving cryptocurrency legislation, the regulations are still insufficient to uncover criminals.

It's critical to implement policies to prevent unlawful cryptocurrency operations and significant volatility before it spirals out of hand.

Explanation of Important Terms

Cryptocurrency

Cryptocurrency is a type of digital or virtual currency that serves as a means of exchange. Since its inception in 2008, cryptocurrency has grown in popularity. However, the anonymity of bitcoin users leads to a slew of unlawful transactions that are impossible to track down.

Blockchain

The blockchain, often known as the public ledger, is a computer-to-computer transaction chain that connects the cryptocurrency process. Blockchain contracts such as trust, security, and immutability digitize and automate rules. Cryptography is used to safeguard information throughout the transaction process for security reasons.

Bitcoin and bitcoin

To be clear, bitcoin with a capital letter “B” refers to the payment network, whereas bitcoin with a lower case letter “b” refers to the money. As a result, when the term bitcoin is used in the study, it refers to the money rather than the payment network.

Primary coins

There are almost 5,000 crypto currencies available on the cryptomarket. As a result, some cryptocurrency currencies have a larger value than other currencies. The three key coins in the cryptomarket are Bitcoin, Ethereum, and Ripple, which are the most popular and well-known crypto currencies.

Altcoins

While there are three principal coins in the cryptomarket, there are also the rest of the crypto currencies, which have less market value. Those are known as “Altcoins.”

Fiat currency

Unlike cryptocurrency, fiat currency is government-backed money. Fiat currencies are secure since there is no risk of the money value falling, however cryptocurrency has the risk of the money value fluctuating like an investment.

Privacy Coins

As the name implies, privacy coins hide the identity of the user and the information contained in the crypto transaction. When a transaction is completed, no record of the recipient's or sender's address is left, and the transaction value is hidden. Although the privacy coins' initial aim was to provide users with an extra layer of privacy, security, and anonymity, some people began to exploit them for criminal ends. Monero, Zcash, Komodo, Verge, and Horizon are the five most well-known privacy coins in the crypto industry.

Transaction

In bitcoin, a transaction is the movement of funds between users. One of the distinguishing characteristics of cryptocurrencies over conventional currencies is that there is no need for a third party to act as an intermediary in a transaction between two parties because bitcoin is transferred between two digital wallets using an encrypted electronic signature. For a transaction to take place, it must first be uploaded to the public ledger and then confirmed by the mining process.

Peer-to-Peer Network (P2P)

The 'peers' in a peer-to-peer network are the two computers connected over the internet. Files can be shared directly between the two peers without the use of a central server. To put it another way, each peer acts as both a client and a server.

Cryptography

Cryptography safeguards personal information such as credit card numbers, e-mails, and corporate data. Secret keys, public keys, and hash functions are the three forms of cryptography. 'Public key cryptography' is used in cryptocurrencies to safeguard transactions, restrict the creation of additional units, and verify asset transfers.

Miners

Miners are those who solve 'cryptographic problems' to validate blockchain transactions. Cryptograms, a form of puzzle made up of discrete fragments of encrypted text, are a type of cryptographic problem. Because of its immense amount of energy consumption with graphics cards, it’s often criticized about its impact to environmental problems.

Onion router

The method of sending encrypted data (which contains messages between users) through several network nodes is known as an onion router. The usage of an onion router, which masks the user's IP address, is a common source of cryptocurrency fraud.

Money Laundering

Money laundering is one of the most widespread crimes in the crypto market. Money laundering is the process of converting illegally obtained funds into 'clean' funds. The launderer hides the money's origins by transferring 'illegal' funds to banks and commercial institutions. The launderer then receives 'clean' money in a roundabout way.

Mixing/Tumbling

Mixing, also known as tumbling, is a new technology that helps thieves launder cryptocurrency and tidy up their cash. When a group of criminals has a pool of dirty money, the pooled money is shifted between transactions, preventing others from following the trail of individual unlawful transactions.

Detailed Background of the Issue

Cryptocurrencies are at odds with important aspects of the global monetary and financial system. Because of the rapid expansion of cryptocurrencies, politicians and regulators must determine whether to include them into their existing systems, or whether to change such systems to accommodate the new reality. As Cryptocurrencies have the potential to upend the current economic model, governments are inspecting Bitcoin and how it should/should not be implemented to current model. Most of the transactions are recorded by the government to be taxed; however, with the cryptocurrencies, income and all relevant financial information can be hid, thus governments' authority would be challenged. Likewise, as it's extremely volatile and cannot be regulated, it may increase distrust of government and scare investors off. Governments which opt to use cryptocurrencies in their investments –e.g. pay with bitcoin in a government tender- would not be the safest option for investors. Moreover, it may be also used by criminals, in case that governments promote cryptocurrencies, it may be also difficult for law enforcement to track criminal transactions such as drug trafficking. Therefore, cryptocurrencies have the ultimate potential to hamper stability. Even so, cryptocurrencies are widely used in the world and it's unrealistic to expect for these transactions to be stopped immediately with imposing bans. So governments are looking ways to monitor the use of cryptocurrencies.

Bitcoin

To comprehend cryptocurrencies and the cryptomarket, one must first understand Bitcoin and bitcoin. Satoshi Nakamoto was the first to introduce Bitcoin; nevertheless, Satoshi Nakamoto's true identity is still unknown. Its goal was to use bitcoin as a type of currency that was devoid of government oversight and corporate influence. As a result, Bitcoin users could use the currency without government limitations or the necessity for a financial middleman. Unlike now, however, bitcoin began with a smaller value, such as 10,000 bitcoins equaling a pizza.

Cybercrimes

There are a variety of cryptocurrency-related crimes that have yet to be identified. The desire to conceal the criminal origin of funds, money laundering, tax evasion, contraband trades, and extortion are all common causes of cryptocurrency crimes. Users can also buy narcotics, firearms, and other criminal services with cryptocurrency.

Moreover, the lack of security in cryptocurrencies allows users to conceal their identities during transactions, allowing money laundering between users and market hacking. This may be observed in the recent Bitcoin hackings, which resulted in the loss of billions of dollars. Furthermore, as previously stated, Bitcoin is not supported by the government. As a result, bitcoin volatility affects individuals rather than the whole citizens.

Although cryptocurrency companies have taken various efforts, such as making bitcoin users' transactions visible, none of these actions have yielded favorable results. Instead, criminals began to engage in unlawful activities through other cryptocurrency organizations. In addition, the criminals began to deploy zero-proof technologies to erase any information that may be used to track them down, effectively barring the path to their capture.

Money Laundering

What makes cryptocurrency the best option for money laundering? The main reason for this is, as already stated, its anonymity. However, bitcoin offers more than just user anonymity, which makes money laundering easier.

Another reason bitcoin is utilized for money laundering is that the sector is unregulated, which leads to minimal reporting of criminal activity. Banks and money service organizations that are regulated have specific sections dedicated to following the trail of money, whether it is passing normally or abnormally. Investigators endeavor to establish the source of the cash, the parties involved, and the goal of the action when a trail of money is unusual or suspected of being a money laundering activity. The crypto market, on the other hand, lacks special departments to track the movement of coins or inspectors to examine user transactions.

Privacy coins are also effective for disguising the relevant details of transactions done during the money laundering process, as described in crucial words. Criminals gain an extra layer of privacy by using privacy coins like Monero and Zcash, which, on the other side, makes law enforcement more difficult.

Another argument for the use of bitcoin in money laundering is the inconsistency of global regulation. While some countries, such as China, have tight cryptocurrency rules, others, such as the United States, do not. The largest worry, though, is that there is no global standard for cryptocurrency. Cryptocurrency legislation, for example, differ in Japan, the United States, India, and China. Due to the lack of a global standard for cryptocurrency, criminals are free to roam from nation to country to launder money using the digital currency.

Money laundering can be separated into three stages. The first stage is referred to as "Placement." The cash obtained through illegal means is laundered and incorporated into the financial system during the placement stage. Because a huge sum of money is being deposited, this is also the stage where the launderer is most vulnerable to being caught. Money is moved to multiple accounts, financial institutions, and countries in the second stage, termed as "Layering," to make it impossible for outsiders to track the original source of money. The launderer then receives the cleaned money of the laundered money in the final stage, known as "Integration." The money is received by the launderer in an indirect and obfuscated manner at this step. The launderer can now utilize the clean money for his or her own purposes.

Major Parties Involved

Some of the parties below have implemented some specific laws regarding the use of cryptocurrencies. You may refer to the V. clause of the part "Useful Links" for more details. It provides information about specific policies of countries such as USA, UK, Taiwan, Spain, Switzerland, Korea, Japan, France, China…

United Nations

As Guterres stated, the UN has been a strong supporter of cryptocurrencies and other technological advancements. The United Nations has launched five blockchain-based projects, including the UNDP (United Nations Development Programme) using blockchain to trace the cocoa supply chain in Ecuador and the UNCDF (United Nations Capital Development Fund) looking into blockchain for funding in Nepal. UNICEF formed a "bitcoin fund" in October 2019 to receive and disburse cryptocurrency donations. In 2019, they also got funds from two cryptocurrencies: bitcoin and Ethereum. However, there are growing concerns regarding the cryptocurrency fund due to the potential of cryptocurrency being hacked and the value of each coin fluctuating dramatically.

IMF

The International Monetary Fund is a Washington, D.C.-based international organization. Its principal purpose is to "maintain the international monetary and financial system's stability." Cryptocurrency, according to the IMF, will supplant central banks and national monopolies. It has been suggested that cryptocurrency companies build a regulatory framework to protect users during transactions.

United States

With the biggest number of cryptocurrency users and bitcoin ATMs installed, the United States is more beneficial to cryptocurrencies. Various states have different regulations concerning bitcoin, with Texas and Montana being welcoming and Washington and Hawaii being hostile.

United Kingdom

The United Kingdom is one of the countries that has taken proactive steps to tackle cryptocurrency-related criminality. Its treasury committee has urged for laws to prevent issues like money laundering, hacking assaults, and price volatility from arising with cryptocurrencies.

China

China, one of the most important marketplaces for cryptocurrency trading, has expressed strong opposition to the cryptocurrency's growing popularity in the country. Because cryptocurrencies are posing a danger to China's official currency, the CNY, the Chinese government has expressed a wish to outlaw them. Furthermore, China intends to launch its own government-backed cryptocurrency in order to improve its economy.

Japan

Japan has also been a proponent of cryptocurrencies, removing the tax on Bitcoin trade to encourage more people to adopt it. But income from cryptocurrency transactions is subject to tax. While some stores allow payment with cryptocurrencies and there are no restrictions on that, companies those provide a platform for handling crypto assets shall be registered to government. However, cryptocurrencies are not classified as fiat currency or money under law.

India

India has the greatest number of crypto owners with over 100 million owners. However, India was one of the countries which has been closely regulating cryptocurrency use and not recognizing cryptocurrency as legal tender until 2020. In 2019, Supreme Court of India has revoked the ban on cryptocurrencies following a petition. Now, India neither forbids nor allows investment in bitcoin. Like many other countries, they're also working on establishing a state-backed digital currency. Yet, as discussed in the "Basic Overview of the Issue" part, this would not create an image of economic freedom and it's even open to debate whether it would be very different than using local currency.

Taiwan

Taiwan is one of the Asian countries that is promoting bitcoin. Taipei is home to Bitfinex, one of the world's major cryptocurrency exchanges. However, there is banking ban on cryptocurrencies as financial institutions (e.g., banks, insurance companies, brokerage firms) are not allowed to engage in transactions. Beside these, there are no restrictions or laws on cryptocurrencies. Like Japan, income generated with bitcoin trading may be taxed as income tax although there is no specific tax laws about bitcoin.

Thailand

Thailand is one of the crypto-friendly countries with some regulations. Every bitcoin user shall have an e-commerce license to trade bitcoin and cryptocurrencies are only exchangeable for Thai Baht. Lately, Thailand announced that bitcoin will be regulated as means of payment.

Chronology of Important Events

January 3, 2009	Satoshi Nakamoto introduced Bitcoin
January, 2009	The first Bitcoin transaction took place between Satoshi and Hal Finnley

August 2010	Bitcoin was hacked to produce approximately 184 billions Bitcoin
March 2013	Financial Crimes Enforcement Network (FinCEN) in US released regulatory guidelines for "decentralized virtual currencies"
March 2016	Japanese government recognized bitcoin as asset-like values by permitting its transaction
January 22, 2018	South Korea imposed obligation that required all cryptocurrency users to make their identity public, with banning anonymous trading
October 2019	UNICEF established cryptocurrency fund
May 19, 2021	Following the new cryptocurrency regulations of China, Bitcoin prices fall to $30,000, plunging over 30%
October 20, 2021	Bitcoin price hits all-time high at $66,974

Relevant International Documents

I. IMF's report on regulation of Crypto Assets (https://www.imf.org/~/media/Files/Publications/FTN063/2019/English/FTNEA2019003.ashx)
II. IMF's report on The Crypto Ecosystem and Financial Stability Challenges (https://www.imf.org/-/media/Files/Publications/GFSR/2021/October/English/ch2.ashx)
III. European Parliament's Study on Cryptocurrencies and blockchain (The expert chair underlines the importance of this document) (https://www.europarl.europa.eu/cmsdata/150761/TAX3%20Study%20on%20cryptocurrencies%20and%20blockchain.pdf)
IV. The monthly briefing on World Economic Situation and Prospects by UN's Department of Economic and Social Affairs (https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/publication/wesp_mb108.pdf)

Past Attempts to Resolve the Issue

From a practical sense, it appears nearly difficult to prohibit or identify unlawful acts using an untraceable currency. However, there have been various attempts to make cryptocurrencies helpful to society, such as governments pushing stricter cryptocurrency rules and UN-led cryptocurrency projects.

Nations have sought to enhance their cryptocurrency legislation. Exchanges that aren't registered with the Japanese Financial Services Agency, for example, have received warnings. Any bitcoin transactions in China have been ruled prohibited. China's government revealed local cryptocurrency exchanges in 2017 and outlawed ICOs (initial coin offerings), a method for startups to raise funding.

The GoLandRegistry Blockchain Initiative in Afghanistan, financial transfers in refugee camps in Jordan, and a traceable supply chain between Djibouti and Ethiopia are just a few of the UN's cryptocurrency projects. The United Nations launched blockchain framework what would support a digital land registry. The project jointly conducted by UN-OCIT and UN-Habitat that uses blockchain to track ownership of land parcels. The World Food Programme is investigating a transparent supply chain tracking mechanism between Djibouti and Ethiopia for food delivery. The World Food Programme and the United Nations Women conducted cash transfers in Jordanian refugee camps. The blockchain was utilized in this project to track monetary entitlements to refugee camps. As previously stated, the United Nations has launched a few projects that benefit from bitcoin and blockchain technology.

Cryptocurrency companies have also been working to strengthen their systems in order to avoid criminal activity in the crypto sector. The KYC (Know-Your-Customer) program, for example, has been established by Coinbase, the world's largest cryptocurrency exchange. The KYC program assists crypto firms in identifying and verifying the identity of its consumers, allowing them to track down criminals.

Solution Alternatives

Given the severity of the situation, finding ways to prevent cryptocurrency from causing harm to individuals and society is critical. Delegates should explore how countries might impose tougher controls on cryptocurrencies to avoid unlawful activity, how users can protect themselves from bitcoin hacking, whether cryptocurrency should be treated as an asset or a currency, and much more when crafting resolutions. Some possible guiding solutions for delegates to build on their resolutions are shown below.

It is critical for a country's government to not disregard cryptocurrency in order for the country to use cryptocurrency safely. One approach to accomplish this is to establish a central governing board with a central intermediary - an issuer who serves as the regulatory focal point - like the 'treasury committee' in charge of finance in the United Kingdom. The central governing body will concentrate solely on bitcoin issues such as security and prohibiting criminal actions in the cryptocurrency space. Regulations on cryptocurrencies can be reinforced by having a central governing board, such as revealing user anonymity in cryptocurrency and monitoring terrorist financing-controlled areas. An executive council can track the bank transactions, which will aid in the detection of criminal activity on the platform. The governing board should set adjustable rates throughout the year to regulate the shifting value of bitcoin in a country.

Cryptocurrency businesses should also work to improve their security systems. With hackers ready to steal users' information and money, it's critical for businesses to require user registration and provide a reader's guide to assist users in enhancing security on their own computers. Furthermore, regulating the cryptocurrency system is crucial. The cryptocurrency system and its users are two ways in which the cryptocurrency system could be regulated. However, considering that there is no specific idea to address regulation to, the bitcoin system itself would be impossible to govern. As a result, the only method to manage the bitcoin system is to identify bitcoin users. Regulating bitcoin users could entail alerting them about the irreversibility of transactions between users once they've been completed, as this will ensure that users are informed of the risks they're accepting. In addition, similar to how Coinbase employs the KYC program to identify and verify cryptocurrency users, other crypto companies should install KYC procedures in their systems to avoid any illicit activity.

Furthermore, in order for cryptocurrency regulations to be enacted, cryptocurrency must be classified as either an asset or a currency. It would be necessary to clarify this in order to create an appropriate regulatory framework.

Users of bitcoin should not be influenced by what they see on social media to make large investments. Fake news about the value of bitcoin is occasionally spread on social media sites, making it difficult for users to conduct secure transactions.

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Useful Links

I. Report on Cybersecurity (https://go.chainalysis.com/rs/503-FAP-074/images/2020-Crypto-Crime-Report.pdf)

II. How does cryptocurrency relate to US to some economic laws through analyzing the problems cryptocurrency brings and their solutions (https://scholarlycommons.law.case.edu/cgi/viewcontent.cgi?article=1096&context=jolti)

III. An article on Money Laundering Through Cryptocurrencies (https://digitalcommons.lasalle.edu/cgi/viewcontent.cgi?article=1041&context=ecf_capstones)

IV. Governments’ point of view on cryptocurrency (https://www.investopedia.com/articles/forex/042015/why-governments-are-afraid-bitcoin.asp)

V. This link provides immense amount of information regarding governments’ policies on cryptocurrency. (https://www.globallegalinsights.com/practice-areas/blockchain-laws-and-regulations)