

Cryptocurrency; the new unleashed financial instrument, should it be regulated?

Omar Hamid Ibrahim *

Dept. of Banking and Financial Science, College of Administration & Economics, University of Zakho, Kurdistan Region–Iraq.
(Omar.ibrahim@uoz.edu.krd)

Received: 06/ 2023 / Accepted: 11/ 2023 / Published: 04/ 2024 <https://doi.org/10.26436/hjuoz.2024.12.2.1272>

ABSTRACT:

The decentralized anonymous cryptocurrency is a new kind of technology that can be used for many purposes such as transferring money and investing. However, they do not have a legal entity that is in charge monitoring its uses. Its extraordinary rise raises critical questions such as, should we regulate it or ban it? Since its purposes have been converted from an anonymous payment system to a tool that is used in illegal actions and undermining financial standards. This paper seeks CC regulation options. Plus, it attempts to lay out the various risks they pose and benefits they bring with the technology they use (blockchain). The objective is to investigate which approach will be more reasonable for the country's conditions. The regulators will try to convince CC service providers to obey rules and operate under official standards, while banners restrict the new instrument's integration with the financial system. The study relied on the descriptive approach to achieve its objectives. The recent literature and publications of the most important related bodies around the world were reviewed. Findings reveal that it is too early for CCs to be considered legal tender. Moreover, both approaches could be adopted according to the country's conditions. Plus, alternatives may have their say. Some suggestions are made for local agencies and investors.

KEYWORDS: Cryptocurrency, Bitcoin, Block Chain, Regulation, Banning.

1. INTRODUCTION

Technology has lifted the curtain on privacy in many areas. But the new financial innovation, presented by new technology (blockchain), does the opposite. Cryptocurrencies with bitcoin being the most dominant conducts financial transactions anonymously. In 2014, the Nobel Prize winner and professor of economics from Yale University Robert J. Shiller said; "Bitcoin (first cryptocurrency) is a speculative bubble with doubtful future" (insights.com). In 2023; however, it is still growing in value and influence. These currencies could be considered a digital representation of value (Ligot, 2019: 3) besides; they may be characterized as securities, commodities, and currencies payment systems. Yet, they function as money in many markets and platforms. While they are not backed by any central bank or governments, which means they might be too risky in the absence of regulation. In contrast, others suggest banning is more deterrent. With inception into the financial system, they converted from a quick, cheap and anonymous payment system to a tool for laundering money, shielding income from tax, and probably financing the extremist groups very soon. Additionally, its use for criminal activities

has grown. Europol reports suggest that 20-30% of CC transactions are connected with criminal activities. As a result, opinions on how to regulate these currencies vary throughout the world, thus, presenting many challenges for policy makers. This paper will focus on cryptocurrency regulations, also known as decentralized virtual currencies. To achieve its goals, the paper is organized as follows: In Part I, it presents the methodology of the study. Part II, sets the stage for the topic by presenting an overview describing CCs, BTC, and the technology related to them. In addition, it compares these currencies with other electronic money and other means of payment. Part III depicts the regulation of CCs around the world. Part IV presents the results and several recommendations.

2. RESEARCH METHODOLOGY

2.1. Statement of the Problem

From the moment they came out in 2009, cryptocurrency kept regulators in confusion. The illegal uses are worrisome. Yet, its real impact and concern appeared in 2017, which witnessed a growing interest in CC from the public and many other categories of dealers, which led to many fluctuations in its prices. The main decentralized CC,

* Corresponding Author.

This is an open access under a CC BY-NC-SA 4.0 license (<https://creativecommons.org/licenses/by-nc-sa/4.0/>)

bitcoin, started at \$0.0009 on the day of issuance and reached its highest price of \$68,789.63 in 2022. During this period, BTC witnessed many fluctuations to reach \$27,613 on May 9, 2023 (coinbase.com). Price volatility could attract investors, but also it makes BTC and other CCs lose people's trust which is vital for the new instrument to be legal tender, at least in the near future.

CC market value keeps growing, and its illegal uses keep expanding. In addition, its emergence turned money laundering, financing terrorism, and tax evasion look easier, which makes regulators worry about the power and speed with which they spread. International regulators, lawmakers and responsible bodies are divided whether to regulate or ban it, plus they cannot agree on unified classification. Hence, the problem of the study lays in the dialectic of whether to regulate or not on both a local and international level. The advocates of regulations attempt to restrain the new unleashed instrument, mitigate its risks, and exploit advantages in the financial system, in the payment system precisely. Furthermore, the opposite side has a completely different point of view.

2.2. Research Questions:

According to the problem stated and other issues lied out in the study, the research will attempt to answer the following questions:

1. What is cryptocurrency?
2. Is cryptocurrency classified as legal tender?
3. Should they be regulated or banned locally and internationally?

2.3. Research Significance

The research derives its significance from the novelty of the topic that it deals with, which is CC, and the influence it has on the financial system. In the past, the economic and financial systems used to last thousands of years until they witnessed a relatively radical change. Yet, in the recent decades it has witnessed many mutations that changed the global economy fundamentally: the industrial revolution and then the emergence of the Internet, which was the reason for the emergence of new financial innovations, which in turn facilitated the global financial system. Among the new financial innovations is CCs that appeared in 2009. The first currency was Bitcoin by Satoshi Nakamoto. The threat CC poses for the financial system, forcing regulators to update regulations periodically.

The research also derives its importance from the controversy on a unified regulation ground, as there are countries attempting to regulate, legislate, and integrate it with the financial system. While there are other countries that stay neutral and some banning it. The dialectic and mystery it surrounds is worth it to go through. Therefore, we will endeavor to remove a bit of the mystery on the subject by answering the questions raised by the research.

2.4. Research Objectives

In addition of concentrating on the regulations of cryptocurrency internationally, depending on the literature,

problem of the research and the hypothesis below, this study aims to:

1. Briefly review what cryptocurrency is and the technology behind it.
2. Discuss whether it is a new form of money.
3. Explain whether cryptocurrency is considered legal tender or not.
4. Explain why or why not cryptocurrency should be regulated.
5. Illustrate the adequacy to establish international unified regulation.
6. Shed a light on the statue of cryptocurrency in Iraq.

2.5. Research Hypothesis

To answer the research questions, researcher depends on the following hypothesis:

1. Cryptocurrency is currently a new form of money.
2. Cryptocurrency could be considered a legal tender.
3. Globally, countries must regulate crypto to reduce related risks and avoid its misuse.

2.6. Data Collection

To build a theoretical framework, the researcher depended on what was reported, published, and issued on the subject by: researchers, international financial, security and political responsible bodies across the world such as: International Monetary Fund (IMF), the World Bank (WB), the Bank for International Settlement (BIS), the Federal Reserve System (Fed), Financial Action Task Force (FATF), The Financial Stability Board (FSB), the European Banking Authority (EBA), The European Securities and Market Authority (ESMA), the International Organization of Securities and Commissions (IOSCO), the People's Bank of China (PBOC), the Bank of Russia (BoR), the Arab Monetary Fund (AMF), Bank Department of Justice (DoJ) in USA, the European Union Agency of Law Enforcement Cooperation (EUROPOL), the Parliaments and Councils across the World, and tens of other international organizations.

2.7. Scope and sample of the research

Cryptocurrency is one of many other decentralized blockchain-based crypto assets. This research targets the international regulation domain rather than the technology aspect. Due to the changes in international attitudes towards crypto assets and the periodic updates that occur this research covers 2022 regulations and before. Taking into account that the available update in 2023 will not be excluded, according to the updated report published by PricewaterhouseCoopers (2022), many countries have promised to issue their updated amendments to legislation or completely new legislation in mid-2023, like the USA, UK, Gibraltar, and many others. To make this research more fruitful, it will be more limited. The scope will be placed on CCs regulations. BTC will be used as an example in this research, which means other types of crypto assets, such as securities or tokens, are out of scope. While concerning to the sample, there is no a specific community or sample selected, the research targets

international cryptocurrency regulation and bitcoin is chosen for several reasons:

1. It was the first cryptocurrency to come out in 2009.
2. It has the largest market value and the highest price.
3. It is the ground on which all other cryptocurrencies are built.
4. Plus, it is a more attractive and most well-known cryptocurrency.

3. Literature Review

3.1. The cryptocurrency landscape

In (his/her/their) white paper titled "Bitcoin: A Peer-to-Peer Electronic Cash System," Satoshi Nakamoto (2008), presented BTC as the first virtual decentralized anonymous currency as a new e-payment system. Today, there are more than 20,000 cryptocurrencies in circulation, with BTC being the most superior among them. Inspired by Wei Dai's article written in 1998, Nakamoto could create untraceable anonymous cryptocurrency Wanjiku, (2022) claims.

This new financial innovation earned popularity since there were no third parties involved, whereas other virtual currencies had centralized entities acting as intermediaries in financial transactions, (Bratspies, 2018: 30). It created a new form of value transfer where a safe payment could be transmitted without the assistance of a middleman, such a central bank or government agency, by combining online technology with cryptography.

Since then, CCs schemes have evolved into a commonplace method of payment, investing, and money transfer. Regulators are concerned about the inception of a new payment system that enables trustworthy, irreversible, end-to-end transactions in real time and on a worldwide scale. This sort of money's innovative character precluded prompt governmental and regulatory action. The Know-Your-Customer (KYC) and AML (Anti-Money Laundering) procedures were not initially intended to handle CC, (Europol, 2021: 5). The BTC landscape is starting to be taken into consideration by some more current anti-money laundering, tax evasion, and terrorism financing rules, nevertheless.

By time, countries, organizations, and other agencies may switch from ban to regulation as India banned it in 2018, then in 2020 the ban was overturned. Cryptocurrency's effectiveness can diminish as a result of these countermeasures, both locally and globally. Due to its decentralization and anonymity, the new innovation is seen as the destiny by those who favor regulation. To reduce its risks and reap the benefits, including a decrease in the price of financial transactions and an increase in speed. It must be placed inside a legal and regulatory framework. Yet, for those who favor its banning, it is preferable not to integrate it into the financial system. Due to potential future harms that could spiral out of control, such as its effects on the stability of the financial system, the local currency, and the central bank's authority which is primarily responsible for the state's financial and economic systems.

3.2. What is Cryptocurrency (Bitcoin)?

Bitcoin is a new type of peer-to-peer virtual currency, yet decentralized by the pseudonym (Satoshi Nakamoto, 2008: 3). The "cryptocurrencies" and "bitcoin" are new phenomena in the international financial sector, (Kien-Meng, 2014: 1). It is a decentralized new financial instrument which means it is not issued by a central bank or a regulatory authority but issued and monitored by its developers. Relatively is the most well-known member of the cryptocurrency family. It is a technology term that refers to a specific subset called distributed ledger technology (DLT) (blockchain), (EUP, 2018: 16). Yet, blockchain is used in many other fields such as; health care, real estate, voting systems, intellectual property, media and many others (Andoni *et al.*, 2019). This new instrument is used widely in payment systems. In 2010, an electronic market was established to exchange BTC for national currencies, and in the same year the first commodity was purchased with BTC, which was two pizzas for 10,000 BTCs (coindesk.com), (Abd, 2019). Using BTC in payment systems eliminated intermediaries which according to Massad (2019: 10) almost caused a second great depression and the collapse of the entire global financial system. He added; we should lessen our reliance on intermediaries, but others see it is too early to exclude intermediaries, because traders are yet to rely on platforms and exchange markets to handle billions-of-dollars transactions daily. Within this expanding industry, blockchain and CCs are two inseparable words (Morton, 2020: 129). CC in turn is a member of a wider category of crypto assets, but BTC has no special status amidst other crypto assets (Levin *et al.*, 2022: 19). It came out as a peer-to-peer, creating a decentralized electronic network of computers that share files instantly without the need for intermediaries, and operate as an untraceable anonymous payment system.

Due to the technology it built on, it is difficult to control or trace the transactions. The financial engineering (blockchain) used in these currencies, transactions can be conducted anonymously. Through a complicated algorithmic computation and extensive power-consuming process called "Mining", this technology produces CCs.

The new financial innovation can be used in purchasing certain products publicly and anonymously. The inventor promised to eliminate intermediaries. After that, its value increased and fluctuated dramatically, from \$0.0009 on the day of issuance and to the highest price \$68,789.63 in 2022. According to (coinmarket.com), on 12.05.2023 BTC is priced at \$26,360, with market value estimated at \$510,714,822,168, and 19,371,375 BTC in circulation. Today, after 13 years, that amount of BTCs can buy 53,738,000 pizzas. Despite its efficiency, speed and low cost, CCs still remain restricted because some countries do not recognize it as a means of payment. Thus, it distinguished it from other electronic payment means.

Table 1. Taxonomy of some common cryptocurrencies

Coin name	Symbol	Market value on 28.05.2023	Convertible into fiat currency	Medium of exchange
Bitcoin	BTC	\$526,809,203,304	Yes	Yes
Ethereum	ETH	\$221,891,045,016	Yes	Yes
Bitcoin Cash	BCH	\$2,213,851,451	Yes	Yes
Litecoin	LTC	\$6,532,922,077	Yes	Yes
Stellar	XLM	\$2,362,309,941	Yes	To a limit extent
Cardano	ADA	\$13,127,656,851	Yes	To a limit extent
Neo	NEO	\$758,022,432	To a limit extent	No
Monero	XMR	\$2,815,142,691	Yes	No
Dash	DASH	\$2,362,309,941	Yes	Yes

Source: Prepared by Author

3.3. The difference between bitcoin and other e-means of payments

The emergence of electronic money systems has attracted a lot of attention in recent decades. Some believe that cash may eventually be replaced by electronic money as the preferred method for small-value payments, which would benefit both consumers and businesses by simplifying and lowering the cost of such transactions. No matter how, the great momentum of these types of e-money and payment

methods causes confusion among people. Besides that, their different names and their various forms are chaotic.

Regardless of the names of these payment methods, what they have in common is that they do not have a physical presence, but rather exist in a virtual digital form that is stored on electronic devices. Digital money is the main umbrella that includes all types of digital, crypto, centralized, and decentralized currencies. The table (1) explains the main differences between cryptocurrency and other types of e-money:

Table 2. The difference between cryptocurrency and other electronic money

Comparison aspect	E-money or electronic means of payment	Cryptocurrency
Specific value	Has specific monetary value	Has no specific monetary value
Legal cash cover	Money can transfer from/to it	Has no legal cash coverage
Centralization of issuance	Decentralized	Centralized
Monetary storage	Depending on charging it by cash balances	Depend on mining process
Method of exchanging	Through controlled infrastructure by authority	Through unmonitored virtual space
Relationship between parties	Contractual relationship	Anonymous relationship
Obligation	Valid for fulfillment of all obligations	Not valid for all obligations
Acceptance	Accepted by public and organizations	Accepted by part of them

Source: Prepared by author

There are those who consider virtual currency a new product of the digital revolution, and they categorize it as a form of electronic money available in the virtual world. Nonetheless, there are differences between new instruments and other electronic money. The European Commission defined electronic money as a monetary value stored electronically on an electronic medium such as a computer card or memory, and accepted as a means of payment by operators, and is placed as an alternative to paper money, with the aim of making electronic transfers for payments of a specific value (Musawi, 2014: 266). While the European Central Bank define it as cash value stored on a technical medium that is commonly used to make payments (Muhammad and Zahri, 2021: 14). The Basel Committee has no different point of view, when they consider it as monetary

value in the form of stored credit units electronically or on an electronic device owned by the consumer. Whatever the concept of electronic money was, they all shared that it is a value stored on an electronic device that is considered an acceptable method of payment.

At the same time, e-currencies and electronic money cannot be considered money as some classify them, but rather advanced payment methods that facilitate financial operations and are backed by actual cash balances, or real assets. Unlike CCs that do not have any cash balance or any other type of asset. Because e-money is not worth anything, its value lies in the balance, and the amounts of cash in it. Thus, it has privileges granted by the legal monetary authority. Even before CCs, value could be represented digitally. Electronic money, which is utilized to replace

traditional monetary storage systems, operates in this way. But unlike CCs, which are not backed by any assets, electronic money is backed by actual, conventional cash. In contrast to traditional emissions, the creation of new currency in CCs is achieved through connection to the system of additional computing capacities by those who participate in the exchange and the economic mechanism of supply and demand (Bolotaeva *et al.*, 2019: 3). The payment power of CCs is solely supported by the acceptance of these participants. Yet, can it be a legal tender?

3.4. Legal tender

Legal tender is anything recognized by law of the state as a mechanism to satisfy a financial obligation or settle a debt, whether it be public or private, including tax payments, contracts, and monetary penalties or damages. Today, BTC and its family members are used in many financial transactions, such as remittances and purchasing products. Yet, any financial instrument must obtain permission and the support of the state law in order to become a legal means of payment for all obligations. For example, fiat money has no implicit value, but it obtains value from the power of state law; without the consent of the government, fiat money can't be a legal tender. In 2012, a report published by the European Central Bank on virtual currency scheme; it classified as a new type of unregulated virtual money, (EUP, 2018: 20). Nonetheless, since that day, attitudes toward these currencies changed significantly. Kaplanov (2012: 22) addressed that; any exchange of an item or service for CC would effectively be a barter agreement if CC were not considered to be a kind of currency. Table 2 shows the status of CCs as a legal tender.

By looking at table (2), you realize that: firstly: it is almost impossible to agree on unified classification internationally, secondly: you can't find the term (Money) among existing categories and thirdly: almost no country considers it as legal tender, except the crypto assets friendly countries, El Salvador and Japan, so it is difficult to consider CCs as legal tender, despite its involvement in many kind of financial transaction. However, in the white paper published by Nakamoto (2008), it is defined as a version of e-cash. Despite the definition presented by the inventor, the one in the financial reality can differ, specifically, by the international specialist organizations.

Dewey (2018: 164) addressed that no single decentralized CCs, such as BTC, are now recognized as legal cash in any country. Money is recognized as anything

generally accepted as payment, whatever the payment contract was. It functions as i) unit of account, ii) medium of exchange and iii) store of value. It can be used to buy any kind of products paying other types of obligations such as debts. Compared to this definition, CCs have not yet been able to meet the three requirements required by the economic definition of money in order to be considered money in that sense (Gitlitz and Buerstetta, 2019: 141). Even while BTC continues to be the most well-known CCs, it does not meet the criterion for general adoption because so few people use or accept it as a means of exchange. Furthermore, as ESMA and Nasdaq (2022: 7) reports; due to extensive fluctuations, and the high risks they bear for investors they lose their feature as a store of value. Caferra *et al.*, (2022: 2) argued it could be fluctuated and affected by the news on social media, which can attract investors more as Urquhart (2018: 6) concluded. Geuder *et al.*, (2018: 9) believes prices can be volatile by regulatory changes impressively, and Auer & Claessens, (2020: 16) confirms. Moreover, a study conducted by Jordan Central Bank concluded that CC can't be considered real currency. Finally, to classify these currencies, Ligot and Sotiropoulou (2019: 14) consider it an investment asset rather than a payment tool, which for us is the closest phrase to CCs.

These indicate that CCs are frequently neither money nor legal tender, as Niska (2019: 23) also expressed. Even so, they are taxable in many countries due to the virtual value they hold. To summarize the above discussion, CCs can be a digital representation of value, as (IMF) and (ECB) classified them previously in 2016. And thus, canceling the first hypothesis and considering that; currently CCs cannot be money because:

- It is not generally accepted in meeting obligations, even in the limited geographical zones,
- can't fulfill all functions of money, particularly, the store of value, due to continue fluctuations,
- decentralized and
- rejected and illegalized by many countries.

As Harari stated in "Sapiens", "Money is accordingly a system of mutual trust, and not just any system of mutual trust; money is the universal and most efficient system of mutual trust ever devised". CCs to this moment, can't have the trust and recognition of all citizens of any geographical population, but money has. So, how can it be done internationally? So the first and second hypotheses are rejected.

Table 3. Classification of Cryptocurrency

Countries and organizations	Classification	Legal tender Yes/No
United States of America Securities and Exchange Commission Commodity Future Trading Commission Internal Revenue Service Financial Crimes Enforcement Network	Securities Commodity Property Value	No
Germany	Other economic goods	No

France	Intangible movable assets	No
UK	Digital assets	No
Isle of Man	Securities	No
Sweden	Assets	No
Russia	Payment means and investment	No
Ukraine	Virtual assets	No
Austria	Intangible commodity	No
Belgium	Digital representation of value	No
Czech Republic	Commodity	No
Norway	Assets	No
Netherlands	Digital representation of value	No
Denmark	Digital representation of value	No
Greece	Portfolio assets	No
Israel	Securities	No
Canada	Commodity, Barter transaction	No
Brazil	Asset	No
Uruguay	N/A	No
Hong Kong	Virtual commodity	No
Japan	Property	Yes
Australia	Commodity	No
El Salvador	Legal currency	Yes
Peru	Digital tokens	No
Mexico	Digital representation of value	No
Argentina	Good	No
Bermuda	Restricted business	No
China	Virtual assets	No
Malaysia	Digital representation of value	No
South Korea	Other income	No
Taiwan	Commodities	No
New Zealand	Financial product	No
International Monetary Fund	It's up to Country or Body	No
European Central Bank	Digital representation of value	No
The European Court of Justice	Currency (for tax purposes)	No
Official Site of Bitcoin	Money	Yes

Source: Prepared by author

4. Regulation

4.1. Cryptocurrency Regulation

Regulating CC means to pull out CCs from anonymity and bring it to the public and transparency, by registering and licensing them in order to work under the supervision of the specialized authorities. These currencies are known as P2P payment, but the majority of transactions are conducted through intermediaries, in particular trading platforms, markets, investors and wallets service providers. Moreover, they might conduct transactions on behalf of others. The most predominant key in regulation is how the anonymous system will respond to interest conflict. In 2018, the New York Attorney General published a report as evidence that regulation might be weak. The OAG chose 30 exchange platforms such as Coinbase and Bitfinex to inquire about their procedures, policies and transactions they conduct; only 9 of them agreed to assist (virtualmarkets.ag.ny.gov).

In dealing with the crypto ecosystem, countries are divided into three categories: 1) countries accepting crypto and regulating it; 2) countries banning crypto implicitly; and

3) countries banning it absolutely. In addition, others find hope in regulations to fight some financial phenomena such as money laundering, terrorism funding, tax evasion, and illicit payments. Massad (2019: 46) argues that the USA must take the lead in regulations despite the variation in international regulation, yet not surprisingly; it seems EU is a step ahead, this is on one hand. On the other hand, the third category of countries consider the new financial instrument as a threat to financial systems, and global security, while the second category stands neutral as they watch which side will be right.

In 2021, crypto assets moved from marginal tools in the economy to more public adoption. BTC prices hit \$60,000; the overall value of CCs led by BTC surpassed \$3 trillion. This transformative year sounded a bell for regulators to hurry in building a framework to control the new massive market. However, there were regulation attempts before that, in China, the People's Bank took the first step toward regulating BTC on December 5 by prohibiting financial institutions from processing BTC transactions. As the crypto market evolved, its effects surfaced in the international economies. Today, regulatory

steps are more accelerating than ever due to the desperate need in controlling this new instrument. El Salvador has distinguished itself as a pioneer with full adoption to this industry and established BTC as a legal tender. Different attitudes toward these types of assets bring a bunch of questions to mind. Why is there a variety of perspectives internationally? Why are there different classifications even in the same country? Can regulation reduce risks? Can banning it restrict CCs influence on the financial system? Is staying neutral the best choice? Is it possible to establish unified international regulation? And many others that can't be covered in a single paper.

Table 3 indicates a very clear common attitude amidst all categories; applications to Anti-Money Laundering and Combating Financing Terrorism laws. This shows the high risks emerged with CCs due to anonymity. The banners and regulators share the same perspective; however regulators are looking for more sufficient solutions. By bringing it under regulations, advocates hope to reduce the related risks and collect its financial fruits. While banners finding prohibition is a better option to avoid possible catastrophic results. Why should it be regulated?

Table 4. Cryptocurrency regulation by country and territories

Countries and territories	Legal status of cryptocurrency	Application to tax law	Application to AML/CFT laws
Albania, Anguilla, Antigua and Barbuda, Argentina, Australia, Austria, Azerbaijan, Bahamas, Belarus, Bhutan, Canada, China, Cyprus, Denmark, El Salvador, Estonia, European Union, France, Germany, Gibraltar, Greece, Hong Kong, Iceland, India, Ireland, Israel, Italy, Japan, Jersey, Kenya, Kyrgyzstan, Liechtenstein, Lithuania, Malta, Mauritius, Netherlands, New Zealand, Norway, Poland, Philippines, Portugal, Russia, Saint Kitts and Nevis, Singapore, Slovakia, Spain, South Korea, South Africa, Sweden, Switzerland, Taiwan, Thailand, Ukraine, United Kingdom, United States, Uzbekistan, UAE, Venezuela.	Regulated/under regulation	50/59 countries and territories	56/59 countries and territories
Angola, Belgium, Bermuda, Brazil, Brunei, Bulgaria, Cayman Islands, Chile, Colombia, Costa Rica, Croatia, Cuba, Czech Republic, Finland, Guernsey, Hungary, Isle of Man, Latvia, Luxembourg, Malaysia, Mexico, Montenegro, Romania, Saudi Arabia, Saint Lucia, Samoa, Serbia, Slovenia Sri Lanka, Cabo Verde.	Not regulated/not banned	16/30 countries and territories	23/30 countries and territories
China	Banned	Unclear	Unclear
Bolivia, Ecuador, Cameron, Burundi, Central Republic of Africa, Senegal, Chad, Namibia, Lesotho, Cote de Ivories, Congo, Burkina Faso, Zimbabwe, Tanzania, Togo, Niger, Nigeria, Benin, Gabon, Mali, Georgia, Guyana, Indonesia, Vietnam, Macau, Maldives, Kazakhstan, Turkmenistan, Pakistan, Turkey, Jordan, Oman, Kuwait, Bahrain, Lebanon, Libya, Tajikistan, Moldova,	Implicit ban	1/38 Countries and territories	11/38 countries and territories
Egypt, Iraq, Qatar, Tunisia, Morocco, Algeria, Bangladesh, Nepal,	Absolute ban	0/7 Countries and territories	7/7 Countries and territories

Source: Prepared by author

4.1.1. Regulation proponents believe regulating CCs can:

Firstly: Reduce related risks of:

- Financial stability
- Money laundering
- Terrorism financing
- Tax evasion
- Illicit activities

Secondly: Utilize its advantages in financial system such as:

- Decentralizing (no intermediaries, no additional costs of transactions)
- Secure technology (blockchain)
- Using CCs in inflation times (Venezuela case)
- International transactions
- Speed in conducting transactions (a cross-border transaction can be done in 10-60 minutes)
- Low cost of financial transactions
- Others

4.2.1. Opponents of Regulation

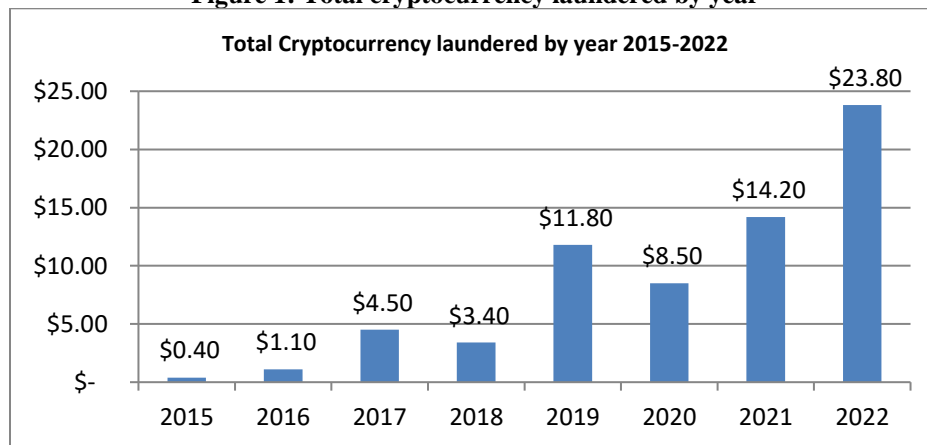
As risks become more pressing, countries step up faster. More than 35% of countries and territories mentioned in Table 3 are banning CCs, whether implicitly or absolutely. They maintain that anonymity and decentralization provide perfect markets for illegal actions and criminals. CCs are involved in uncountable illegal actions. In addition, they could present frustration to the law enforcement due to their ability to cross borders, and encryption Michael, (2013: 264) observes. Their drawbacks could be categorized in many ways, but generally they could be:

4.2.1.1. Money Laundering

Money laundering is the activity of hiding the origin of criminal proceeds and incorporating them into the legitimate financial mainstream (Sullivan, 2015: 2). While (Anzola and Santos, 2022: 10) consider it as concealing the origins of money linked to crime or otherwise attempting to weaken the link between property and some criminal undertaking. In other words, money laundering is the process of converting bad money into legitimate money. Due to their pseudonymous character and ease of cross-border transactions, CCs do have some advantages for money laundering. Many international agencies warned of the high risks these CCs hold for money laundering, (IMF), (FATF), (BIS), (IOSCO), publishing periodical reports about these risks. According to the US Department of Justice (2020: 13); criminals of all types are adopting BTC more frequently to launder their illegal proceeds, in general, money laundering. Such conduct can be much easier when funds are moved anonymously, according to the same report.

ML based on CCs is on rise. Abrams, (2022) argued that criminals laundered more than \$8.6 billion in 2020, 30% more than the previous year. Reuters and BBC shared similar statistics in January 2023. According to (US DoJ, 2020: 14) and (EUROPOL, 2021: 8) reports that BTC-e, the popular CCs exchange operated in Russia established in 2011, laundered more than \$4 billion in facilitating financial transactions. Similar cases announced by U.S. Attorney; Silk Road Dark Web, DEEP DOT WEB, THE NORTH KOREAN HACKS, HELIX, and others with seizure estimated \$3.8 billion dollars. These dark webs and exchanges shut down due to immense transactions related to corruption, cybercrime, drug trafficking, and other criminals.

Figure 1: Total cryptocurrency laundered by year



Source: Chain analysis

Evaluating the range of CCs used in ML is difficult. Furthermore, it is currently too early to determine how regulations may affect lowering the risks associated with these currencies.

4.2.1.2. Financing terrorism

What distinguishes financing terrorism from money laundering is that the terror groups can obtain funds from legitimate sources also. Still, anonymous sources are more

sufficient. There is minimal evidence that terrorist groups use CCs on a significant scale compared to other criminal organizations, Aaron Brantly from the military academy of West Point observes (Baron *et al.*, 2015: 20). US DoJ announces the use of CCs in terrorism domain is still limited, but there are attempts from these groups to use the new weapon to fund their activities. The same department announced that ISIS used CCs and other social media means to fund their campaigns and spread its influence. Al-Qaeda

also attempted to receive charity by using social media platforms. In case CCs stay unleashed, terrorist groups can raise funds easily and undermine international security.

At this moment, the use of crypto in financing terrorism may be limited, but its scale cannot be predicted in the future. The use of technological experts in terrorist groups can exploit the efficiency of crypto in such operations to facilitate the movement of borderless money transfers.

4.2.1.3. Tax Evasion

Tax evasion is an illegal conduct in which you, as an individual or a business, avoid paying your tax liability, briefly, it could be defined as irregularity executed deliberately (David and Abreu, 2013; 2). it is unethical action (McGee *et al.*, 2008: 3). Importantly, if CCs grow and change in value, the tax loss from unreported capital gains may be substantial. TE is another illegal action that evolved with emerging crypto assets. CNBC, (2021) reported that CCs and BTC specifically can shield income from responsible authorities.

Tax evasion channels might differ based on the characteristics of national tax systems and treaty networks (IMF, 2018: 7). According to (Binance.com), cryptocurrency is one of the newest channels, which we can use to evade taxes without getting caught. Crypto anonymity makes it difficult to determine who owns crypto, thus transactions are hidden from tax authorities (Baer *et al.*, 2023). Despite the

opportunity CCs hold for tax evasion, the majority of countries are still waiting to apply the Anti-Tax Evasion Law, particularly some tax haven territories such as Bermuda, the Cayman Islands, the Bahamas, Anguilla, and many others according to Congress Law Library, (2021). During the fiscal year 2021, the IRS seized CCs worth \$3.5 billion, in the 2020 IRS’s crime department grabbed billions of dollars’ worth of BTCs and other CCs related to cases of fraud and ML, including the former developer of Microsoft Cor. (fortune.com).

4.2.1.4. Illicit uses

According to a consultant paper published by Russia bank in (2022: 18) CCs namely BTC use in almost all illegal activities. Hundreds of cases have been recorded and prosecuted around the world including most dark crime fields. As Mythili Raman the U.S. Senate observes, virtual currency is no different from other new financial and technological innovations in that criminals almost always adopt them first (Trautman, 2014: 7). At the same time, the manager of CC Initiative Bureau in FBI Kyle Armstrong argues that there are some good aspects of CC from the detecting perspective: they could be tracked and followed more easily than cases of suitcase cash (Alex, 2018). Table 4 shows some CC-based cases in different types of criminal around the world.

Table 5. Illegal and criminal cases involving cryptocurrency

Criminal case	Country base	Crime field	Estimated amount	
			Lost	Seized
Ponzi scheme	Worldwide 177 countries	Fraud	\$2.6 million	
Fraudulent trading scheme	Bulgaria and Macedonia	Fraud	\$30 million	
Criminal services online	N/A	Assassination	\$10,000	
Ransomware proceeds	N/A	Theft		
SamSam ransomware	Iran	Digital blackmail	\$30 million	
BTC-e	USA	Cybercriminal services		\$4 billion
Operation Disrup Tor	USA	Selling illicit goods		\$6.5 million
SilkRoad Marketplace	USA	Dark web		\$3.36 billion
Herocoin	USA	Fraud		
Welcome to video	USA	Darknet website		
DarkScandals	Netherlands	Darknet website		
Thodex exchange	Turkey	Fraud	\$2 billion	
Mirror Trading International	South Africa	Failure	\$1.2 billion	
Africrypt	South Africa	Filure	\$3.6 billion	

Source: Prepared by author

Sandel (2012) argued in his remarkable “what money can’t buy” that the rule of markets has changed from buying and selling commodities people need to a place where everything is for sale. He added that today, a very few things are out of the reach of money, which means everything is for sale. CCs could establish a perfect environment which can evolve markets of illicit products and services. Therefore, driving CCs beyond the moral limits of the market.

4.2.1.5. Threat to financial stability

According to the World Bank, financial stability is the lack of system-wide incidents in which the financial system fails to function (crises) is what financial stability is all about, it also concerns the resilience of financial systems to stress (worldbank.com). While the European Central Bank describes it as the ability of the financial system, which includes financial intermediaries, markets, and market infrastructures, to resist shocks and break down of financial imbalances (ecb.europa.eu). In other words it is when the

financial system is capable of facilitating an economy's performance (Schinasi, 2004: 8). CCs adoption holds serious risks to the financial system and the country's economy as a whole. Possible use of CCs as means of payment for purchasing products and services can undermine a country's currency circulation, according to the Global Financial Stability Report by (IMF). Moreover, the capital might cross borders from the local financial system which affects the economy. Even so, FSB believes in accordance with available data, CCs' can pose a slight threat to global financial stability (fsb.org). The Economist.com, (2023) addresses the fact that digital finance may pose novel risks, specifically to financial stability. Nonetheless, in the long run witnessing unprecedented risks are not excluded, AMF concluded in 2019.

Eventually, it is too early to consider the results of regulation because they are in the development process. While banners believe the explicit threats it poses for national security and financial stability as a result of their growing value and their existence in a virtual world difficult to control. Researchers believe that switching from banning to regulating will be more reasonable than the contrast, because banning after fully regulated might cause complex consequences. Furthermore, it is more rational for countries that lack advanced technological infrastructure such as African and some middle-eastern countries to wait and see how regulation can affect the domain. Neutral countries can proceed toward the same approach.

Concerning the classification, regulation advocates countries attempting to regulate it according to what fits their economy's needs. Iran is cashing it to resist US sanctions (reuters.com); Ukraine is legalizing CCs to receive aid to fund the Russian war (elliptic.co). Due to the falling value of the local currency Bolivar, Venezuela is looking at it as a solution, and so on (Di Salvo, 2019)). Even in the same country, agencies classify it in accordance with the sector they operate within, for example, the IRS deals with CCs as property to subject it to taxation, Securities and Exchange Commission classify it as securities.

Unlike other countries, China is proceeding to establish a centralized cryptocurrency by the central bank. Singapore is planning to cooperate by developing Project Ubin (Monetary Authority of Singapore, 2019). Other countries and national regions are stepping in the same direction like Ireland, Venezuela, Saint Lucia, and many others. According to AMF, EUA and Saudi Arabia announced they will conduct an experiment on "Aber" a new centralized cryptocurrency. In 2019, Facebook announced a similar project by establishing Libra Project. Xia (2021: 449) states that these centralized new currencies are backed by reserved assets. In addition, they possess distinctive advantages such as recognition as legal tender and low cost of transactions.

Ultimately, as never before, this currency can provide complete information about the life cycle, from creation to distraction. The IMF classifies it as centralized currency. But, BIS warns that it could impact the banking sector.

Governments are attempting to take control of the financial system again after losing part of it to the

anonymous system. Arguably, why should customers invest in the crypto system that is threatened with collapse at any moment? In 2022, the Russian bank published an advisory paper in which a survey conducted by Binance Research stated that 38% of investors no longer trust the current financial system. (Bank of Russia, 2022: 15). This indicates that customers, in future, might switch to another decentralized system.

4.2.1.6. Other drawbacks

Other disadvantages such as power consumption could be ignored, because some CCs such as BTC have a limited supply, it would cease once it touches 21 million coins. According to Cambridge, BTC alone consumed 130 TW in 2021, which exceeds Ukraine consumption in 2021 (Makarov & Schoar, 2022: 9). Compared to previous disadvantages, power consumption is considered marginal.

4.2. International Regulations

Internationally, due to national security and economic considerations, the perspective toward CCs varies. However, coordination and cooperation is crucial for law enforcement. Only to take Liberty Reserve (Costa Rica based virtual currency) down; agencies of 17 nations cooperated and coordinated (Trautman, 2014: 40). Seemingly, even in the far future no unified international regulation is expected.

Steven (2019) reported that the Libra Project basket is supposed to include 50% USD, 18% EUR, 14% JPY, 11% GBP, and 7% of Singapore dollar. This basket excluded Chinese, as Senator Mark Warner requested (finews.asia). This is most likely a result of the economic and political tension between the US and China. Moreover, from 134 nations mentioned in table 3; 44% are regulating CC, 33.5% banning it, while the 22% stands neutral.

After all, addressing risks could be done through one of three potential actions: i) ban, ii) contain, or iii) regulate. Each option might have pros and cons. The first approach eliminates possible harms to the financial system; however, it could undermine the innovation, particularly in finance. The second approach is attempt to isolate crypto from the real economy and TradFi; this could prevent CCs from damaging the financial system and prohibit crypto from getting full approval, which is preferable approach as Allen, (2022) suggests, in case banning failed. In addition, it is more practical in case crypto faded in the future Ceccetti & Shoendholts (2022) concluded. While the last approach means treating the crypto ecosystem as traditional finance, which encourages financial innovation and exploits CCs' efficiency in the financial system. (Aquilina *et al*, 2023: 5) suggest that by encouraging innovation in TradFi, we can build a more integrated financial system. The most significant elements of such a strategy could be improving the payment system's quality and reducing its costs. This could be done first by introducing fast payment systems such as Pix in Brazil, UPI in India, and Fednow in the U.S. Secondly, by the (CBDCs) introduced by China and other countries and regions.

The second hypothesis was accepted partially and rejected partially. Since CC is already a reality, it cannot be controlled if it is left unregulated. It is possible for countries

with advanced technology and economic systems to begin regulating it. Countries that are politically and financially in trouble, however, are unable to set up and manage a virtual financial system at a time when they are confronted with a myriad of issues on the levels of security, politics, finance, and the economy. So, it's more preferable for them to ban.

4.3. Cryptocurrency in Iraq

Iraq is one of the most unstable countries in the world, both politically and economically. Accepting a new, complex financial system would be more problematic than being a solution. CCs are not the first controversial business experience Iraqi citizens' have had. The Ponzi scheme was introduced more than a decade ago. Because liquid investments can move more easily than others, they could be more attracted. As expressed before, CCs are new tools used by extremist groups to fund their activities; ISIS is one of them, as the U.S. DoJ presented evidence. According to the security agency, these groups use social media to collect funds in CCs such as BTC.

Economically, there were almost no prosperous times in Iraq for decades. Moving from war to war exhausted the country and destroyed its infrastructure. Successive governments failed to build an independent country economically, which created an attractive environment for corruption and financial scams. Nearly 15 years ago, as we personally witnessed and experienced, Ponzi scheme brokers entered Iraq. Because people intend to invest in high-return investments, the financial scam exploited this approach. They built a network where funds were exchanged among investors, with the new investor's money given to an existing one.

CCs are completely different from Ponzi scams, but they are a simple way of funding and moving funds; you can transfer money earned by Ponzi easily through CCs. Despite misconceptions, CCs are more trusted. Intermediaries are exploiting CCs to involve people in fake local crypto and Ponzi schemes.

In 2022, the Central Bank of Iraq announced that any business involving CCs was banned due to the fluctuations and absence of monitoring. In order to ensure the optimal application of the due diligence procedures referred to in the Anti-Money Laundering and Terrorist Financing Law No. (39), 2015 and the instructions issued thereunder (cbi.iq). Despite ban and periodic warnings, Iraqis can still easily trade these currencies on available platforms in Iraq, such as Binance, Cex.io, Coinmama, and others. Payment could be made more easily by bank cards or even by local payment methods such as FastPay. The BIDZ coin is one of these currencies, which a Kurdish program developer claims; it might be a scam. The same programmer added that the currency's promoter was generating new wallets and purchasing it to drive up the price. More people will buy as a result. The price will now decrease once more as the wallet developer transfers the money gained. The BIDZ coin's price dropped from \$0.9 to \$0.1 in a week.

Moreover, another most debatable issue in trading CCs in the Islamic world is their conflict with Sharia. In October 2022, the International Union of Muslim Scholars

joined other Islamic organizations in banning CCs (bbc.com). While writing this paper, on May 23, 2023, the Union of Islamic Scholars of Kurdistan-Duhok Branch declared that any involvement in CC's contracts is "haram" due to its conflicts with Islamic Sharia's principles. However, accepting charities in BTC from some mosques around the world is questionable (arabnews.com).

(Muhammad & Abdulbasit, 2020: 159) from Baghdad University recommended Iraqi legislators start a project of regulating CCs in the near future, but we completely disagree. In our point of view, the CBI decision to ban CCs due to the uncountable risks and drawbacks they pose for Iraq in particular is more preferable.

5. Findings and Recommendation

5.1. Findings

Whether CCs are regulated or banned, the future consequences are uncertain. The new innovation possibly will change the financial system if globally adopted. The growing scale and impact of CCs, precisely Bitcoin, might indicate that they are here to stay. This means the crypto domain can no longer be ignored. Countries such as the U.S., Japan, Switzerland, and El Salvador around the world lead the regulation, and others follow. Briefly findings can be as following:

- The cryptocurrency domain is yet blurry and decentralized; monitoring and controlling it is still in the beginning steps.
- Rather than being money or official tender, cryptocurrency are considered a value representation exchanged in the virtual world that can be converted to fiat currency.
- CCs prices are unstable; despite their great worth, CCs continually experience volatility.
- There is no universal classification for CCs; instead, each nation categorizes them in accordance with how well they suit their respective economies. International organizations classify it in accordance with their objectives and strategies.
- The crypto market is not responding to regulations as required, reports claim; exchanges, platforms, and other intermediaries' present conditions to obey regulators.
- In dealing with the crypto ecosystem, countries are divided into three categories: 1) countries accepting crypto and regulating it such as; such as the U.S., EU zone countries, and Japan; 2) countries banning crypto implicitly such as Turkey, Libya, Cameroon, and Bolivia; and 3) countries banning it absolutely such as Iraq and Egypt. While China remained on the other side as usual against the west by developing its own central bank digital currency (CBDC) as an alternative of regulating the decentralized one.
- CCs are helpful to build dark markets, where illegal products and services are traded. These kinds of markets are expanding; anonymous payment systems make criminal actions easier.
- CCs are extensively used in money laundering and tax evasion, and slightly in financing terrorism. Billions of dollars were laundered in cases such as; Silk Road dark web,

DEEP DOT WEB, THE NORTH KOREAN HACKS, HELIX.

- CC's immediate impact on financial stability is still limited, since its scale is yet modest compared to the real economy.
- Some tax haven countries tend to not regulate CCs.
- CC is a double-edged weapon, regardless of the bad reputation linked with it; a regulated CC could be a sufficient tool in transferring money around the world.
- Despite banning crypto in Iraq, people are still trading it on many active platforms.

5.2. Recommendation

- The predictions that the CC will grow and expand at the very beginning of the emergence of bitcoin have mostly come true, especially since it has integrated with the global economy, it is better to take into account that it will continue in the coming years at the same pace or more. In this case, it is preferable for capable countries to regulate CC and introduce it to the financial system instead of being out of control and monitored.
- It is preferable for the Iraqi Central Bank to stick to its judgment and keep banning all CC operations in Iraq. The weak country is not yet well prepared to adapt to sophisticated financial technologies, both economically and technologically.

6. References

6.1. Reports

- Cryptocurrencies. Bank of Russia. (2022): Trends, Risks, and Regulation. Consultant Paper.
- Europol, 2021. Cryptocurrencies. Tracing the Evolution of Criminal Finances, Report.
- International Monetary Fund, (2018). International Corporate Tax Avoidance: A Review of the Channels, Effect Sizes, and Blind Spots. Working Paper of Fiscal Affairs Department.
- International Monetary Fund Staff, (2016). Discussion Note. "Virtual Currencies and Beyond: Initial
- Levin, R.B., Tran.T., Kilisanly, M. (2022). Cryptoassets & Blockchain, Switzerland. Consulting Paper.
- Massad, T.G. (2019). It's Time to Strengthen the Regulation of Crypto-Assets.
- Nasdaq. (2022). Cryptocurrency Regulation Summary, 2022 Edition.
- PwC. (2022). Global Crypto Regulation Report 2023, 19. Considerations.
- US Department of Justice. (2020). Cryptocurrency Enforcement Framework, the Report of Attorney General's Ceber Digital Task Force.
- Schinasi, G. J., (2004). Defining Financial Stability. International Monetary Fund Working Paper, WP/04/187.

6.2. Research

- Anzola, A. and Santos, M. O. T., (2022). The Regulation of Money Laundering and Corporate Criminal Responsibility in Spain: compliance as a key for Virtual Asset Service Providers.

- Because people continue to trade in these currencies despite the Central Bank's ban, traders should exercise caution when dealing with CC. First, there is no legal protection or oversight provided by any governmental agencies, and second, due to the sharp price swings, you could lose a significant portion of your investment in a matter of seconds.
- Since CC are already a reality and cannot be controlled if it is left unregulated, it is possible for countries with advanced technology and economic systems to begin regulating it. Countries that are politically and financially in trouble, however, are unable to set up and manage a virtual financial system at a time when they are confronted with a myriad of issues on the levels of security, politics, finance, and the economy. So, it is more preferable for them to ban.
- Since we are a Muslim community, it is better not to trade suspicious financial instruments, as they may not be compatible with the principles of Islamic law until the opinion of Islamic religious scholars on this subject is known.
- The Iraqi security agencies should monitor the financing movements of terrorist groups with greater caution. Receiving funds via crypto could strengthen these groups and expand their operations.

- Auer, R. and Claessens, S. (2022). Cryptocurrency Market Resctions to Regulatory News. *CESifo Working Papers*.
- Andoni, M., Robu, V., Flynn, D., Abram, S., Geach, D., Jenkins, D. & Peacock, A. (2019). Blockchain Technology in the Energy Sector: A Systematic Review of Challenges and Opportunities. *Renewable and Sustainable Energy Reviews, 100, 143-174*.
- Aquilina, M., Frost, J., Schrimpf, A. (2023). Addressing the Risks in Crypto: *Lying out the Options. BIS Bulletin, No. 66*.
- Bratspies, R.M. (2018). Cryptocurrency and the Myth of the Trustless Transaction, *Michigan Technology Law Review, Vol 25, II*.
- Bolotaeva, O.S., Stepanova, A.A., Alekseeva, S.S. (2019). The Legal Nature of Cryptocurrency. *International Science and Technology Conference, Earth and Environmental Science, 272 (2019) 032166*.
- Baron, J., O'mahony, A., Manheim, D., Schwarz, C.D. (2015). National Security Implications of Virtual Currency. Examining the Potential for Non-state Actor Deployment.
- Caferra, R., Tedeschi, G., Morone. A. (2021). Bitcoin: Bubble that Bursts or Gold that Glitters? *Elsevier Journal, Economic Letters (205) 2021*.
- David, F and Abreu, R., (2013). Tax Evasion. *Encyclopedia of Corporate Social Responsibility, Springer*.
- Dewey, J. (2019). Global Legal Insights – Blockchain & Cryptocurrency Regulation. First edition, Global Legal Group Ltd., London, 2019.

- Gitlitz, M. A. and Buerstetta, G.E. (2019). An Introduction to Virtual Currency Money Transmission Regulation. *Global Legal Insights*.
- Geuder, J Kinatader, H., Wagner, N.F. (2018): Cryptocurrencies as Financial Bubbles: the Case of Bitcoin. *Finance Research Letters*.
- Dewey, J. (2019). Blockchain & Cryptocurrency Regulation. *Global Legal Insights, 1st edition*.
- Kien-Meng, M. (2014). Coining Bitcoin's "Legal-Bits: Examining the Regulatory Framework for Bitcoin and Virtual Currencies. *Harvard Journal of Law & Technology Volume 27, Number 2 Spring 2014*.
- Kaplanov, N. (2012). Nerdy Money: Bitcoin, the Private Digital Currency, and the Case against its Regulation. Available on: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2115203.
- Ligot, S., Sotiropoulou, A. (2019). Legal Challenges of Cryptocurrencies: isn't It Time to Regulate the Intermediaies? *European Company and Financial Law Review. Research Gate Journal, October 2019*.
- Makarov, I and Schoar, A. (2022). Cryptocurrencies and Decentralized Finance (DeFi). *Banking International Settlement, Working Papers, Monetary and Economic Department*.
- McGee, R. W., HO, S. S. M., Li, A. S. Y., (2008). A Comparative Study on Perceived Ethics of Tax Evasion: Hog Kong vs The United States.
- Morton, T. (2020). The Future of Cryptocurrency: An Unregulated Instrument in an Increasingly Regulated Global Economy, *Loyola University Chicago International Law Review, Vol 16, 11*.
- Michelle, A. G & Grant, Buerstetta. (2019). An Introduction to Virtual Currency Money Transmission Regulation. 1st edition.
- Michelle, A. G & Grant, Buerstetta. (2019). An Introduction to Virtual Currency Money Transmission Regulation. 1st edition.
- Michael, G.J. (2013). Anarchy and Property Rights in the Virtual World: How Disruptive Technologies Undermine the State and Ensure that the Virtual World Remains a Wild West.
- Nakamoto, S. (2008). Bicoïn. A Peer-to-Peer Electronic Cash System, white paper.
- Sandel, M.J. (2012). What Money Can't Buy? The Moral Limits of Market.
- Therese, K-N. (2019). The Use of Cryptocurrency within International Investment Law. *Course for final thesis for law program*.
- Trautman, L., (2014). Virtual Currencies; Bitcoin & What Now After Liberty Reserve, Silk Road, and MT.GOX? *Richmond Journal of Law & Technology, Vxx, Issue 4*.
- Urquhart, A. (2018). What Causes the Attention of Bitcoin? *Elsevier Journal, Economic Letters. Volume 166, May 2018*.
- Xia, M. (2021). In Search of the Perfect Coin: China's Approach towards Cryptocurrency and Its Own Central Bank Digital Currency. *Banking & Law Review 36.3*.
- Sullivan, K., (2015). Anti-Money Laundering in a Nutshell: Awareness and Compliance for Financial Personnel and Business Managers. A press. Book

6.3. Arabic Researches

- الموسوي نهى خالد عيسى، الشمري، إسراء خضير مظلوم (٢٠١٤). النظام القانوني للنقد الإلكتروني، مجلة جامعة بابل، العلوم الإنسانية، المجلد ٢٢، العدد ٢.
- د.عبد، عمار عبد حافظ (٢٠١٩). أحكام التعامل بالعملة الإلكترونية، البيبتكوين ومثيلاتها: دراسة مقارنة بين الفقه الإسلامي والقوانين الدولية. مجلة الجامعة العراقية، العدد 44، الجزء 3.
- زهري، محمد عبد الفتاح، السعيد، محمد أحمد (٢٠٢١). أثر عوامل الثقة الإلكترونية للبيبتكوين على المعاملات الفندقية كآلية للتحويل الرقمي في مصر، مجلة اتحاد الجامعات العربية للسياحة والضيافة، (JAAUTH) كلية السياحة والفنادق، جامعة قناة السويس، المجلد ٢٠، العدد ٤.
- البنك المركزي الاردني (٢٠٢٠). العملات المشفرة. دائرة الإشراف والرقابة على نظام المدفوعات الوطني.
- مخاطر وتداعيات العملات المشفرة على القطاع المالي (٢٠١٩). أمانة مجلس محافظي المصارف المركزية ومؤسسات النقد العربية، فريق عمل الاستقرار المالي في الدول العربية.
- زعين، محمد جمال و محمد، عبدالباسط جاسم (٢٠٢٠). العملة الافتراضية (بيبتكوين) تكييفها القانوني وحكم التعامل بها. مجلة العلوم القانونية، العدد الثاني، ٢٠٢٠.

6.4. Links

- Abrams, A. (2022). AML Cryptocurrency Regulations Around the World. Retrieved from: <https://sumsub.com/blog/aml-cryptocurrency-regulations-around-the-world/>. Accessed on 19.06.2023.
- Alex, W., (2018). Pragmatic Decentralization: How IDEX will approach Industry Regulation. Retrieved from: <https://medium.com/idex/pragmatic-decentralization-how-idex-will-approach-industry-regulations-8b109212128a>. Accessed on 21.05.2023.
- <https://www.finews.asia/finance/29603-facebook-crypto-libra-s-reserve-basket-likely-to-exclude-yuan>.
- Baer, K., de Mooij, R., Hebous, Sh., Keen, M., (2023). Crypto Poses Significant Tax Problems—and They Could Get Worse. Retrieved from: <https://www.imf.org/en/Blogs/Articles/2023/07/05/crypto-poses-significant-tax-problems-and-they-could-get-worse>. Accessed on: 05.08.2023.
- Crypto Myths – Debunked! Part 3: The Myth of Crypto Being Used For Tax Evasion. Retrieved from: <https://www.binance.com/en/blog/community/crypto-myths--debunked-part-3-the-myth-of-crypto-being-used-for-tax-evasion-7056861026076436097>. Accessed on 05.08.2023.
- Christopher, M. (2023). Central-Bank Digital Currencies Are Coming—Whether Countries Are Ready or Not. Retrieved from: <https://www.wsj.com/articles/digital-currencies-banking-system-11673625716>. Accessed on 13.05.2023.

- Crypto money laundering rises 30%. (2022). Retrieved from: [Crypto money laundering rises 30%, report finds - BBC News](https://www.bbc.com/news/business-47553048). Accessed on 20.05.2023.
- Crypto Money Laundering: Four Exchange Deposit Addresses Received Over \$1 Billion in Illicit Funds in 2022. Retrieved from: [Crypto Money Laundering: Four Exchange Deposit Addresses Received Over \\$1 Billion in Illicit Funds in 2022 - Chainalysis](https://www.ft.com/content/ac058ede-80cb-4aa6-8394-941443eec7e3). Accessed on 20.05.2023.
- Ceccetti, S & Schoenholts, K., (2022). Let Crypto Burn. Retrieved from: <https://www.ft.com/content/ac058ede-80cb-4aa6-8394-941443eec7e3>. Accessed on 26.05.2023.
- Gertrude, Ch.D., (2022). Crypto money laundering rises 30% in 2022. Retrieved from: <https://www.reuters.com/technology/crypto-money-laundering-rises-30-2021-chainalysis-2022-01-26/>. Accessed on 19.05.2023.
- Greg, L., (2021). Cryptocurrency poses a significant risk of tax evasion. Retrieved from: <https://www.cnbc.com/2021/05/31/cryptocurrency-poses-a-significant-risk-of-tax-evasion.html>. Accessed on 21.05.2025.
- Laura, D., (2021). IRS may seize crypto valued at billions of dollars in 2022, according to official. Retrieved from: [The IRS could seize billions of dollars of cryptocurrency in 2022 | Fortune](https://www.fortune.com/story/2021/05/13/irs-may-seize-billions-of-dollars-of-crypto-in-2022-1137878). Accessed on 21.05.2023.
- London Mosque Accepts Bitcoin during Holy Month. Retrieved from: <https://www.arabnews.com/node/1311281/jserrors/aggregate#:~:text=A%20mosque%20in%20Britain's%20capital,conversion%20fees%2C%20mosque%20leaders%20said>. Accessed on 26.05.2023.
- Monetary Authority of Singapore (2019). Project Ubin: Central Bank Digital Money using Distributed Ledger Technology. Retrieved from: www.mas.gov.sg/schemes-and-initiatives/Project-Ubin. Accessed on 22.05.2023.
- Office of Public Affairs. (2016). Liberty Reserve Founder Sentenced to 20 Years for Laundering Hundreds of Millions of Dollars, U.S. Department of Justice. Retrieved from: [Liberty Reserve Founder Sentenced to 20 Years For Laundering Hundreds of Millions of Dollars | OPA | Department of Justice](https://www.dhs.gov/news/2016/05/13/liberty-reserve-founder-sentenced-to-20-years-for-laundering-hundreds-of-millions-of-dollars). Accessed on 24.05.2023.
- Di Salvo, M., (2019). Why are Venezuelans seeking refuge in crypto-currencies? Retrieved from: <https://www.bbc.com/news/business-47553048>. Accessed on 28.05.2023.
- Office of the New York Attorney General. (2018). Virtual Markets Integrity Initiative Report. Retrieved from: [Virtual Markets Integrity Initiative Report \(ny.gov\)](https://www.nyc.gov/assets/nyag/html/virtual-markets-integrity-initiative-report-2018-2019). Accessed on 15.5.2023.
- Shiller, R.J. (2014). In Search of a Stable Electronic Currency. Retrieved from: <https://insights.som.yale.edu/insights/in-search-of-stable-electronic-currency>. Accessed on 27.05.2023.
- Steven, Z., (2019). Facebook Libra will be made up of U.S. dollar, Euro, Yen, Pound, and Singapore dollar. Retrieved from: [Facebook Libra will be made up of U.S. dollar, euro, yen, pound, and Singapore dollar \(yahoo.com\)](https://www.yahoo.com/news/facebook-libra-will-be-made-up-of-u-s-dollar-euro-yen-pound-and-singapore-dollar-1200000000.html). Accessed on 22.05.203.
- There are Risks but also Big Potential Benefits from Digital Payments. *Article from the Economist Magazine*. Retrieved from: <https://www.economist.com/special-report/2023/05/15/there-are-risks-but-also-big-potential-benefits-from-digital-payments>. Accessed on 16.05.2023.
- <https://finance.yahoo.com/news/facebook-sees-libra-tied-dollar-223851348.html>. Accessed on 22.05.2023.
- Wanjiku, S.M., (2022). Wei Dai-What Is His Influence in the Crypto Sector? Retrieved from: <https://crypto.news/wei-dai-what-is-his-influence-in-the-crypto-sector/>. Accessed on 13.05.2023.
- <https://cbi.iq/news/view/1977>. Accessed on 26.05.2023.
- <https://www.bbc.com/arabic/business-63234456>. Accessed on 26.05.2023.
- FSB warns of emerging risks from crypto-assets to global financial stability, (2022). Retrieved from: <https://www.fsb.org/2022/02/fsb-warns-of-emerging-risks-from-crypto-assets-to-global-financial-stability/>. Accessed on 02.08.2023.
- <https://www.worldbank.org/en/publication/gfdr/gfdr-2016/background/financial-stability>. Accessed on: 03.08.2023.
- Iran Uses Crypto Mining to Lessen Impact of Sanctions. Retrieved from: <https://www.reuters.com/technology/iran-uses-crypto-mining-lessen-impact-sanctions-study-finds-2021-05-21/>. Accessed on 24.05.2023.
- Live Updates: Ukraine Government Turns to Crypto to Crowdfund Millions of Dollars, (2022). Retrieved from: <https://www.elliptic.co/blog/live-updates-millions-in-crypto-crowdfunded-for-the-ukrainian-military>. Accessed on 27.05.2023.

دراوی کریپتو؛ نامرزی دارایی نویی نازادکراو، نایا پیویسته ریگخرنیت؟

پوخته:

دراوی کریپتوی بڼاوی لامرکمری جزوئی نویی تهکنهلوژیایه که دمتوانرنیت بو چمندین مهبست بهکار بهینرنیت و مک گواستنوهی پاره و وهبه هینان. بهلام لایمنیکی یاساییان نیبه که بهر پرسیار بڼت له چاودیزیکردنی بهکار هینانکائی. سه همدانی ناسایی پرسیاری رمخنهگرانه دوروزنڼیت و مک، نایا پیویسته ریگخهین یان قدهغهی بکهین؟ بهو پییهی مهبستهکائی له سیستمی پاردانی بڼاوهه گوردراون بو نامرزی که له کردوهی نایاسایی و ټیکدانی ستاندارده داراییهکان بهکار دهینرنیت. نهه توژیژینهویه بهوای بژاردکائی ریگخستن CC دهکرنیت. لهگهله نهه شدا، هه لدهدات نهه مخرسیبه جوراوجورانهی که دروستی دهکن و نهه سودانهی که لهگهله نهه تهکنهلوژیایهی که بهکار یدههینن (بلوکچین) دهینرنیت، بختهروو. نامانج لئی لیکوآینهویه که کام رڼباز گونجوتر دهینت بو بارودوخی ولات. ریگخهران ههول ددهن دابینکهرانی خزمهتگوزاریهکائی CC رازی بکهن که پابهندی یاساکان بن و بهپی ستاندارده فهرمییهکان کاربکهن، له کاتیکدا بانهرهکان بهگرتنی نامرزه نوییهکه لهگهله سیستمی دارایی سنوردار دهکن. توژیژینهویهکه بو گهستن به نامانجهکائی پشتی به رڼبازی و مسفکر بهستوه. پیداجوونهوه به نههیبیات و بلاوکراو مکانی نهه دواییه گرنکترین دهزگا پهیوندیدار مکان له سهانسری جیهان کرا. دوزینهوهکان دههدهخن که زور زوه بو نهوهی CC مکان به پارهی یاسایی ههژمار بکرن. جگه لهوش دمتوانرنیت ههردوو رڼباز که بهپی مهجهکائی ولات بگرنهیهههه. لهگهله نهه شدا، رهنکه بهدیلهکان قسهی خوځان ههینت. همدیک پیشنبار بو دهزگا ناوخوییهکان و وهبه هینان دهکرنیت.

کلینیه ووشه: دراوی کریپتو، بیتکوین، تهکنولوژیا بلوک چاین، ریگخستن، قدهغه کردن.

عملة مشفرة؛ هل ينبغى تنظيم الأداة المالية الجديدة المطلقة؟

المخلص:

تعد العملة المشفرة اللامركزية المجهولة نوعاً جديداً من التكنولوجيا التي يمكن استخدامها لأغراض عديدة مثل تحويل الأموال والاستثمار. ومع ذلك، ليس لديها كيان قانوني مسؤول عن مراقبة استخداماتها. يثير صعوده الاستثنائي أسئلة حرجية مثل، هل يجب أن يتم تشريعه وتنظيمه أم الحظر هو الخيار الأفضل؟ لقد تم تحويل أهدافها من نظام دفع مجهول إلى أداة يتم استخدامها في أعمال غير قانونية وتقويض المعايير المالية. تسعى هذه الورقة إلى خيارات تنظيم CC. بالإضافة إلى ذلك، يحاول تحديد المخاطر المختلفة التي يشكلونها والفوائد التي يجلبونها مع التكنولوجيا التي يستخدمونها (blockchain). والهدف من ذلك هو التحقق من النهج الذي سيكون أكثر منطقية لظروف البلد. سيحاول المنظّمون إقناع مزودي خدمات CC بالامتثال للقواعد والعمل وفقاً للمعايير الرسمية، بينما يرى المانعون انها أداة يمكن ان يشكل خطراً على الامن القومي وتهديد للنظام المالي. اعتمدت الدراسة على المنهج الوصفي لتحقيق أهدافها. تمت مراجعة المؤلفات والمنشورات الحديثة لأهم الهيئات ذات الصلة حول العالم. تُظهر النتائج أنه من السابق لأوانه اعتبار CCs مناقصة قانونية. علاوة على ذلك، يمكن اعتماد كلا النهجين وفقاً لظروف البلد، بالإضافة إلى ذلك، قد يكون للبدائل كلمتهم. وقد تم تقديم بعض الاقتراحات للوكالات المحلية والمستثمرين.

الكلمات الدالة: العملات المشفرة، البيتكوين، سلسلة الكتل، التنظيم، الحظر.