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Unregulated Cryptocurrency: Need for Legal Regulation in Digital Economy

Rashi Makhija

Research Scholar at University School of Law and Legal Studies, GGSIPU, Dwarka, New Delhi

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ABSTRACT

This research paper explores the intricate relationship between cryptocurrency law and the broader economic payment landscape. Cryptocurrencies, powered by blockchain technology, have emerged as a transformative force in financial systems globally. The regulatory frameworks governing this non legal tender virtual currency play a pivotal role in shaping their adoption, market dynamics, and impact on traditional economic structures. This article also delves into the diverse approaches taken by governments worldwide in regulating cryptocurrencies.

It examines the challenges and significances presented by this decentralized financial paradigm. Furthermore, the paper explores the economic implications of cryptocurrency regulation. It explores how regulatory clarity or ambiguity affects investor confidence, market liquidity, and the ability of these digital assets to serve as alternative forms of currency or investment. The interplay between taxation policies, anti-money laundering measures, and the growth of the cryptocurrency ecosystem is examined to understand their combined impact on economic development. Through an interdisciplinary lens, this research article aims to contribute insights into the evolving dynamics of cryptocurrency law and its influence on the broader economy which can lead to heavy scams.

By addressing both legal and economic dimensions, this article seeks to offer a comprehensive perspective on the role of regulation taken by Indian legislation and judiciary and challenges faced in shaping the trajectory of cryptocurrencies in the contemporary financial landscape.

^{*}Corresponding author.

Introduction

Since a decade, Economic Offence Wing (EOW) have been unearthing various crypto-Ponzi scams and have arrested the masterminds. In fact, Lloyds Bank have issued 'Urgent Warning' on rising threat of crypto scams. However, these scams are directly interlinked to unregulated crypto-technology. With advancement of computer technology, the whole concept of capital assets and ledger formation have seen a major drift from traditional financial system of paper work to an economy compromising a new land-scape for virtual tokens/ currencies. These new medium of payment or exchange have changed the overall outlook of funds transfer from one party to another without the need of third party like banks, credit or debit cards or any central bank around the world.

However, with so much potential in shaping the whole economic monetary system of a country in a favourable way for the investors, it brings forth challenges as the crypto scam came from fake crypto investment companies who entices or deceives the crypto investors through social media, emails, or spams to gain private information and trick or impersonate them as a friend to grab his/her information related to digital wallet. This shift challenges traditional economic model, prompting a re-evaluation of how value is created and exchanged in the virtual realm.

Despite the global push on futuristic policies of cryptocurrency and given the ability to encourage innovation, this article will look at the realm of unregulated crypto technology and as to how Indian legislation and judiciary can tackles the scams related to cryptocurrency for the interest of justice.

Money versus Currency

Money has always been interchangeably used with relation to currency³ but in fact they are different from each other because money is a wider term and currency has been considered the physical or tangible annunciation of intangible concept of money.⁴ Money is generally accepted means of exchange which measures the value, whereas currency has

⁴Ibid note 3.

always been a tangible form to show the intangible value like more specifically, paper money or coins

Before coins or tokens were even devised, human history has witnessed the many illustrations of barter system⁵ were a particular item or community, also known as 'community money' where considered as a token or a coin to exchange goods and services. No money or currency was used as a payment of exchange in traditional times. However, in barter system, value was a quenching question because sometimes the item was not of the same value when exchanged from another person.

From 770 BC to 700 BC, it is believed that coin was generated in China and after that a pure system of paper money were created in China.⁶ However, prior to this, India, Egypt, and Rome temples have testimony of coins made of clays, copper or brass and the items/ commodities which were purchased using those coins were stored in warehouse probably for trade, administration, or accounting.

The historical changes in monetary system or the system of exchange of money changed the way we legally make payment for something with nominal value. It was after 16th century that fiat money or banknotes were issued by Sweden's Central Bank as a means if payment. In late 20th century, credit cards debit cards became the dominant mode of consumer payment, especially in Developed Nations. However, with the times, the tangible element of currency changed to intangible form of digital or virtual currency due to the advent development of computer technology, internet, and software, which perhaps made the payment easier, faster, and more flexible. Both virtual currency and cryptocurrency are in digital form, however cryptocurrency has no central authority to manage it, free from legal formalities as it is in decentralized form.8 Hence, digital currency is quite different from cryptocurrency as digital or virtual currency compromises of legal tender unlike the cryptocurrency which is private, independent, free from any government involvement and risky for investors.

Cryptocurrency, Blockchain Technology and **Decentralization**

Every country especially after the Covid pandemic, are already living in the digital world where various countries have upgraded their economic system from traditional

¹India, P.T. (2023, November 17). *Odisha Police Burts Rs. 200 Crore Crypto-Ponsi Scheme*, *3 Arrested*. From NDTV. Retrieved from https://www.ndtv.com/india-news/odisha-police-busts-rs-200-crore-crypto-ponzi-scam-3-arrested-4583156/amp/1.

²Helms K. (2023, November 16). *Lloyds Bank Issues 'Urgent Warning'* on Rising Threat of Crypto Scams, Retrieved from https://news.bitcoin.com/lloyds-bank-issues-urgent-warning-on-rising-threat-of-crypto-scams/.

³Beattie, A. (2022, September 17). *The History of Money, From Bartering to the banknotes to Bitcoin*. Retrieved from Investopedia: <u>https://www.investopedia.com/articles/07/roots_of_money.asp.</u>

⁵Id.

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⁷Bindseil, U. (2019). *Central Banking before 1800: A Rehabilitation*. Oxford University Press.

⁸Hughes, S. D. (2017). CRYPTOCURRENCY REGULATIONS AND ENFORECEMENT IN THE U.S. West State Law Review, 3.

paper work to computer technology-driven digitization. Same thing happened with the currency, which has also taken the shape of digitization and this digital token or virtual currency is called cryptocurrency. This Example, bitcoin which is an innovative decentralized payment network or virtual currency.

The term 'crypto' has a Greek origin which means 'secret, hidden or concealed.'9 So, the whole crux behind crypto is a hidden or concealed currency and that is why this virtual currency is in an intangible form which cannot be seen. The whole concept behind this medium of payment that can be used to exchange online goods and services is that it is in decentralized form, which means that this virtual currency is not controlled by any government or any legalized institutions around the globe. Software programs using cryptography are used to security and these computer/ software programs stores hash or user's ledger, public and private keys using blockchain technology.

Blockchain technology is a distributed ledger technology that stores data in a digitalized form and which cannot be deleted or cannot easily change the information or data of transaction from one person to another person.¹⁰ It stores data or hash in it and is secured using cryptography. In other words, the digitized data of individual transaction on blockchain is a proof of medium of payment which is spread across the other various computers that also holds and manage the information regarding the transaction. This technology is based on decentralized form, where there is no central authority and the data of transaction can be accessed to all, reducing corruption as these data/ hash cannot be deleted or easily hacked. Hence, the pre-eminent quality of this technology is that the data or the transaction records between users cannot be easily manipulated by anyone and cannot be changed easily by any government, central bank or by hackers because the crypto- technology is based on blockchain technology which also compromises of previous hash.

Thus, this cryptocurrency is a virtual currency which was introduced and developed by one pseudonym person name Satoshi Nakamoto.¹¹ The popularity of this currency is so prominent because unlike the traditional payment medium, it is not in a tangible form but is kept in digital or e-wallet or in a digital from. So, it acts as an online money as it exists due to internet and computer or computer networks. Euro, dollar, or rupees are also currencies

which are regulated by government by government or any other government agency. Whereas in cryptocurrency, there is no control of any government, central bank or any other government agency around the world. Hence, it is in decentralized payment network where despite has many potentials to change the outlook of economic aspects around the globe, however cryptocurrency also poses threat to national banks. The popularity of cryptocurrency is so prominent around the world that there are already more than five thousand cryptocurrencies like Ethereum, Ripple, Tetha, Libra, few examples, in which user can invest and easy purchase or sell just like Bitcoin for shopping, trading, or traveling. 13

Overview of rapid growth of cryptocurrency

The 'network effect' refers to the miracle where the value of a product or service increases as further people use it. In the environment of cryptocurrencies, the network effect plays a pivotal part as further individualities and businesses borrow and use a specific cryptocurrency, the more precious and extensively accepted it.14. For illustration, in a cryptocurrency network, as more people use a particular coin, there is a greater likelihood of finding other young professionals who accept and use the same coin for transactions. This, in turn, encourages more users to join the network, making the cryptocurrency more liquid and widely accepted. As the first and most widely recognized cryptocurrency, Bitcoin has benefited significantly from the network effect, with a large user base, merchant acceptance, and infrastructure supporting its use. However, a widespread network makes it more difficult for any single entity to control the network.

There is a huge surge of tech-savvy and urban centres, Bitcoin and Ethereum has shown a greater investment opportunity for investors. No third party is needed where the transaction of funds between two parties will be easy, hence the rapid growth of cryptocurrency can be attributed to factors like decentralized technology, potential for high returns, increased adoption by businesses, and growing interest from institutional investors. Bitcoin's surge in value, along with the rise of alternative coins, has fuelled

⁹Definition of Crypto. (n.d.). Retrieved from merriam-webster.com: https://www.merriam-webster.com/dictionary/crypto.

¹⁰Jagodic, D. V. (2018). *Blockchain technology, bitcoin, and Ethereum: A brief overview*. Research Gate, 1-6.

¹¹Pieters, A. O. (2023). *Cyrpto-Currencies and Crypto Assets: An Introduction. Eastern Economic Journal*, Springer Link, 201-205.

¹²Chakravorty, N. G. (2021). Comparative study on cryptocurrency transaction and banking transaction. Science Direct.

¹³Berman, A. S. (2023, February 28). *Cryptocurrencies, Digital Dollars, and the Future of Money.* Retrieved from Council on Foreign Relations: https://www.cfr.org/backgrounder/cryptocurrencies-digital-dollars-and-future-money.

¹⁴Ivey, A. (2023, February 19). *What is the network effect?* Retrieved from Coin Telegraph: https://cointelegraph.com/news/what-is-the-network-effect.

widespread attention and investment in the crypto space. However, regulatory developments, market volatility, and evolving technology continue to shape the landscape.

In India, the cryptocurrency market has experienced rapid growth fuelled by factors such as increased awareness, a youthful population, less corruption as it is a technology driven decentralized concept and the potential for high returns. Rising interest in blockchain technology, the ease of digital transactions, and the decentralized nature of cryptocurrencies have contributed to this expansion. However, the regulatory landscape has been uncertain, with periods of both acceptance and apprehension. The Reserve Bank of India (RBI) imposed a banking ban on crypto transactions in 2018,15 but this was set aside by the Supreme Court in 202016, leading to a resurgence of interest and investments in the sector. Despite regulatory uncertainties, the Indian cryptocurrency market continues to attract attention and investment, with the government showing signs of considering a more comprehensive regulatory framework.

Challenges to cryptocurrency law in Law

In India, cryptocurrencies face a unique set of challenges of high malware threats and cybercrimes like money laundering, tax evasion or terror financing. Regulatory uncertainty has been a significant issue, with authorities exploring various approaches and sometimes expressing concerns about potential misuse. Moreover, the volatile nature of cryptocurrency prices raises concerns about investor protection and the potential for financial losses. The government is considering various regulatory frameworks, and how these are implemented will significantly impact the future of cryptocurrencies in India

No act has defined the term 'cryptocurrency' but the Government of India has talked ample number of times to give cautious warning to investors or users engaging themselves with any virtual currency. On 1st February 2017, Reserve Bank of India cautioned the investors to operate or engage with any virtual currency at their own risks as it is not under the authority of the government.¹⁷

Even before this circular in 2013, ¹⁸ Reserve Bank of India halted the investors for potential financial threat and legal risks associated with virtual currency or cryptocurrency because cryptocurrency is not regulated and hence unauthorized, which may lead towards hacking of e-wallet from anonymous persons. As it is unregulated it does not carry a place in Consumer Redressal Forums and this lack of clear regulations can leave users vulnerable to fraud and scams. Public perception and understanding of cryptocurrencies remain relatively low, contributing to scepticism and caution as there is no specific jurisdiction or legal recognition provided to it.

Through press release in year 2017,19 the Reserve Bank of India circulated²⁰their notice due to rapid growth of investment in cryptocurrencies that the apex bank has not issued any license or authorization to entertain any schemes of investment which deals with cryptocurrency or virtual currency and again halted the investors or users to use these digital currencies at their own risk despite there is lack of clarity and more prone to illicit activities. However, these warning did not trigger the investors to not to invest in virtual currencies. Hence, Reserve Bank of India has played an important role to alert in users or investors till then and because of these cautionary notices did not ban the buying and selling of the cryptocurrency. However, on 6th April, 2018,21 Reserve Bank of India notified and imposed banking ban dealing with cryptocurrency and other virtual currencies. All commercial banks, private and even co-operative banks banned from dealing with cryptocurrency.²² However, meanwhile when the ban was imposed by Reserve Bank of India on virtual currency, one Inter-Ministerial Committee23 which consisted of Department of Economics, Ministry of Electronics, SEBI, and Reserve Bank of India submitted its report in 2019 to analyse the status of cryptocurrency in India and around the globe. This report analysed the value of cryptocurrency and how investment on digital currency has risen over the past three years. It also examined the legal enforceability and regulatory provisions which can govern these currencies in future. However, this report was inclined towards banning private cryptocurrency in India. The reasoning given by this committee for the banning these digital currencies was that these currencies cannot replace fiat money as these digital currencies are more prone to fluctuations

¹⁵CNBC TV 18, Awasthi, R. (2021, June 3). *RBI says banks can't use its 2018 circular to ban crypto transactions*. Retrieved from The Economic Times: https://economictimes.indiatimes.com/tech/technology/rbi-says-banks-cant-use-its-2018-circular-to-ban-crypto-transactions/articleshow/83117728.cms.

¹⁶Rajagopal, K. (2020, March 4). Supreme Court set aside RBI ban on Cryptocurrency transactions. Retrieved from The Hindu: https://www.thehindu.com/news/national/supreme-court-sets-aside-rbi-ban-on-cryptocurrency-transactions/article61967124.ece.

¹⁷Mishra, U. (2023). *India: Regulatory Evolution of Cryptocurrency in India*. Mondaq.

¹⁸Panwar, K. S. (2023). *India: Cryptocurrency: Unregulated Futuristic Technology*. Mondaq.

¹⁹Ganduly, S. (2022). *India: Cryptocurrency Regime in India: The Journey So Far.* Mondaq.

²⁰Supra note 19

²¹Suniti Kaur and Ashwini Panwar, A. L. (2023). *Crypto Currency at a glance R1*. Manupatra Articles.

²²idbi

²³idbi

and has no intrinsic value. Hence, this committee later proposed banning of "Cryptography and Regulation of Official Digital Currency Bill, 2019" which was inclined towards of not accepting the decentralized nature of these digital or virtual currencies.

Legal Frameworks governing Cryptocurrency under Indian Law

The committee-imposed ban on the buying and selling of cryptocurrency in year 2019 by passing a bill. However, the report and the bill were set aside by the Supreme Court of India on 4th March, 2020 in the landmark by stating that "since impugned indirect has nearly wiped the virtual currency exchanges out of the artificial chart of the country, thereby infringing Article 19(1)(g) of the Indian Constitution".24 The Hon'ble Supreme Court observed that because of no regulation dealing with cryptocurrency, the investors or druggies have suffered both directly and laterally. The Hon'ble Court stated that the Inter-Ministerial Committee used extreme connotations to ban the virtual currencies and editorialized that nonsupervisory measures should be proposed when commission was made for the evaluation of these virtual currencies. still, the Hon'ble Court admitted the fact that cryptocurrency is a technology that work on blockchain technology, which is out of the control of government or in a decentralized form. likewise, the Hon'ble Court editorialized that cryptocurrencies are like goods or particulars which can be bought or vended and not subject to any kind of a ban.

After striking out of ban by the Supreme Court on the trading of virtual currencies in India, the Indian legislation proposed another "Cryptocurrency and Regulation of Official Digital Currency Bill, 2021" in March to produce an autonomous virtual currency which may work under the authorisation of Reserve Bank of India and the bill also mentions to produce a facilitative frame for creation of the digital currency to be regulated by RBI. The bill allows certain exception to promote underpinning technology of cryptocurrencies and its uses but still banned for the use of cryptocurrency and the crypto trading should misbehave with the vittles of FEMA, KYC and Anti-Money Laundering.

In October 2022, the Indian Government mentioned about a pilot program based on e-Rupees or the Digital Rupee.²⁵ The Reserve Bank of India issued on concept note

during the Union Budget 2022 on CBDC (Central Bank Digital Currency) to explore the potential usage of block-chain technology. ²⁶ This Central Bank Digital Currency, unlike the cryptocurrency are legal tenders issued by the Central Bank. This CBDC can be used as e-wallet or e-Rupee or virtual form of paper currency based on the block-chain technology.

As already mentioned, that the term 'cryptocurrency' or 'virtual currency' have not been defined anywhere in any of the acts but the term 'currency' has been defined in Section 2(h) of the Foreign Exchange Management Act, 1999 (FEMA, 1999) as "all currency notes, cheques, money orders, bills of exchange, promissory notes, debit and credit cards or other similar instruments, as maybe notified by the Reserve Bank of India". The crypto lacks legal tender from the Reserve Bank of India so such section under FEMA 1999 does not support the definition of cryptocurrencies as it lacks clarity of regulation by the central government and Reserve Bank of India.

In the landmark case of *Internet and Mobile Association* of *India v. Reserve Bank of India*²⁸, the court opined that cryptocurrency should treated as a 'commodity' or 'good.'²⁹ This is mentioned under Section 2(bb) of Securities Contract Regulation Act, 1956 as a 'good'³⁰ is "every kind of movable property other than actionable claims, money and securities".³¹ However, it is still under the ambiguity as it should be notified by the Central Government.

Moreover, cryptocurrency users have the right to expect that their digital assets to secure from unauthorized access, hacking, or fraudulent activities. This involves the implementation of robust security measures by cryptocurrency exchanges, wallets, and other service providers. Users also have the right to the privacy and protection of their personal information associated with cryptocurrency transactions. Cryptocurrency users should be protected against fraudulent schemes, scams, and misleading practices. Regulatory frameworks and enforcement play a role in preventing and prosecuting fraudulent activities

²⁴ Internet and Mobile Association of India v. Reserve Bank of India, W.P. (CIVIL) No.: 528 (Supreme Court March 4, 2018).

²⁵ Verma, K. (2023, June 14). What is Digital Rupee? How it is different from Cryptocurrency? Retrieved from Forbes.com: https://www.forbes.com/advisor/in/investing/digital-rupee/.

²⁶ India, R. B. (2022). *Concept Note on Central Bank Digital Currency*. PIB Delhi: Ministry of Finance.

 $^{^{\}rm 27}{\rm Kanoon,\,I.}$ (n.d.). Section 2(h) in the Foreign Exchange Management Act, 1999.

 $^{^{28}}Id.$

²⁹Madhu Gadodia, Sujoy and Tarini Kulkarni. (2022). [*The Viewpoint*] Regulation of virtual digital assets in India. Bar and Bench. Retrieved from https://www.barandbench.com/law-firms/view-point/regulation-of-virtual-digital-assets-in-india.

³⁰Karan and Rishi (2021). *Cryptocurrency: A Legal Perspective on a Misunderstood Technology.* Tatva Legal Hyderabad. Retrieved from https://tlegal.com/blog-details/cryptocurrency-a-legal-perspective-on-a-misunderstood-technology.

³¹Supra 19

within the cryptocurrency space. Moreover, the term cryptocurrency or virtual currency has not been included in the definition of 'Securities' under the Securities Contract Regulation Act, 1956 as securities if purchased or sold, then it should be done only in a centralised form and in cryptocurrencies; the whole concept is based on decentralization.

On 1st April, during the Union Budget 2022, the Indian Government stated that the transfer of any cryptocurrency or virtual asset will be subject to 30% tax deduction and the term 'Virtual Digital Assets' or 'VDAs'32 was broadly defined in Section 2(47A) under the Income Tax Act, 1961 as:

- "(a) any information or code or number or token (not being Indian currency or foreign currency), generated through cryptographic means or otherwise, by whatever name called, providing a digital representation of value exchanged with or without consideration, with the promise or representation of having inherent value, or functions as a store of value or a unit of account including its use in any financial transaction or investment, but not limited to investment scheme; and can be transferred, stored or traded electronically; 3536
- (b) a non-fungible token or any other token of similar nature, by whatever name called;
- (c) any other digital asset, as the Central Government may, by notification in the Official Gazette specify: Provided that the Central Government may, by notification in the Official Gazette, exclude any digital asset from the definition of virtual digital asset subject to such conditions as may be specified therein. Explanation: For the purposes of this clause, -
- (a) "non-fungible token" means such digital asset as the Central Government may, by notification in the Official Gazette, specify;

(b) the expressions "currency," "foreign currency" and "Indian currency" shall have the same meanings as respectively assigned to them in clauses (h), (m) and (q) of section 2 of the Foreign Exchange Management Act, 1999 (42 of 1999)." 88

The latter part of April month of 2022, witnessed a CERT (Indian Computer Emergency Response Team) guideline on cryptocurrency and its relation with cyber security.³⁹

Cryptocurrency Regulation: A global Perspective

Globally, cryptocurrency regulation varies widely, reflecting diverse attitudes and approaches. Some countries embrace and regulate cryptocurrencies, aiming to foster innovation while ensuring consumer protection and financial stability. Another legal challenge with cryptocurrency is with the cross-border transactions where regulations may differ widely among countries, impacting tax treatment or money laundering issues. Additionally, the lack of international laws complicates regulatory consistency due to decentralised nature. Examples include Japan and Switzerland, which have established clear legal frameworks. Conversely, other nations maintain a cautious or restrictive stance. China⁴⁰ and Russia⁴¹, for instance, has imposed strict bans on certain cryptocurrency activities or any use of it. Regulatory challenges often revolve around defining cryptocurrencies legal status, addressing anti-money laundering (AML) and know your customer (KYC) concerns, and managing potential risks to financial stability. On an international scale, organizations like the Financial Action Task Force (FATF) work to establish global standards for combating money laundering and terrorist financing, influencing how countries shape their cryptocurrency regulations and defined the term 'cryptocurrency' as 'virtual asset service provider' (VASP).42 The

³²Susmita Dutta. (2022). *Income Tax on Virtual Digital Assets under section 115BBH. CA Club India.* Retrieved from https://www.caclubindia.com/articles/income-tax-on-virtual-digital-assets-under-section-115bbh-47118.asp.

³³Verma, T. (2023). *Taxation of Cryptocurrencies as rewards from Online Gaming.* National Law Institute University, Bhopal; Centre for Business and Commercial Laws.

³⁴Mohit A @Blockchain Talk. (2022). *Indian government has defined Crypto as Virtual Digital Asset*. The Times of India. Retrieved from https://timesofindia.indiatimes.com/readersblog/blockchaintalk/indian-government-has-defined-crypto-as-virtual-digital-asset-41081/. ³⁵supra

³⁶Dr. Suresh. (2023). What Is Bitcoin and How Does It Work? Forbes Advisor. Retrieved from https://www.forbes.com/advisor/in/investing/cryptocurrency/what-is-bitcoin-and-how-does-it-work/.s

³⁷Navodya Singh Rajpurohit. (2023). *India: Virtual Currencies Comparative Guide*. Mondaq. Retrieved from https://www.mondaq.com/india/technology/1279762/virtual-currencies-comparative-guide. ³⁸Kumar, D. (2022, February 14). *Scheme for taxation of virtual digital assets (Cryptocurrencies & NFT)*. Retrieved from Tax Guru: https://tax-guru.in/income-tax/scheme-taxation-virtual-digital-assets-cryptocurrencies-nft.html.

³⁹Nishchal Anand, P. A. (2023). *Blockchain & Cryptocurrency Laws and Regulations 2024*. Retrieved from Global Legal Insights.

⁴⁰Reuters. (2021, September 24). *China declares all crypto-currency transactions illegal.* Retrieved from BBC News: https://web.archive.org/web/20230217120109mp_/https://www.bbc.com/news/technology-58678907.

⁴¹Miller, R. (2022, October 3). Russia Warms To Crypto in Quick About-Face. Retrieved from Forbes News: https://www.forbes.com/sites/rose-mariemiller/2022/10/03/russia-warms-to-crypto-in-quick-about-face/. ⁴²Fl, O. (2019). RBA for Virtual Assets & Virtual Asset Service Providers. United States: FAFT, 2019.

evolving nature of this virtual currency underscores the need for collaboration and adaptability in crafting effective regulatory frameworks.

In 2021, over 15 states of United States of America have already passed laws concerning cryptocurrency regulations.⁴³ In 2022, National Cryptocurrency Enforcement Team under the Justice Department analysed and examined the misuse of cryptocurrency and other digital assets, making USA a liberal thinker with relation to the need of legal regulation of virtual currencies.⁴⁴

Countries like El Salvador and Central African Republican are the only two countries around the globe where Bitcoin is a legal currency and have taken steps to regulate the use of it.⁴⁵

How to safeguard investors or users from scams

Smart contracts and cryptocurrency are closely intertwined in the realm of blockchain technology. Smart contracts are self-executing contracts with the terms directly written into code. They operate on blockchain platforms, such as Ethereum, and automatically execute when predefined conditions are met. Cryptocurrencies, like Bitcoin or Ethereum's Ether, serve as the native digital assets on these platforms.

Smart contracts enable decentralized and trust less, automatic execution of agreements, eliminating the need for intermediaries. ⁴⁶ Cryptocurrencies, on the other hand, provide the means of value transfer within these smart contract ecosystems. Together, they facilitate decentralized applications (DApps) and create new possibilities in areas like decentralized finance (DeFi) or non-fungible tokens (NFTs). In summary, cryptocurrencies and smart contracts work symbiotically, with cryptocurrencies providing

the economic layer for executing and maintaining smart contracts on blockchain platforms.⁴⁷

Even, the blockchain technology can serve as a powerful tool for evidence in cryptocurrency law due to its inherent transparency and immutability. The decentralized and distributed nature of blockchain ensures that once a transaction is recorded, it is extremely challenging to alter retrospectively.⁴⁸

In legal contexts, blockchain records can be used to establish a transparent and tamper-proof trail of transactions, making it a valuable source of evidence. This could be crucial in cases involving fraud, disputes, or regulatory compliance within the cryptocurrency space. Courts and regulatory bodies may recognize blockchain data as a reliable form of evidence, providing a clear and verifiable history of transactions.⁴⁹

Future trajectory

The future trajectory of cryptocurrency laws is likely to be influenced by a combination of technological advancements, evolving regulatory frameworks, and ongoing shifts in public perception. Governments and regulatory bodies around the world are expected to work towards providing clearer legal frameworks for cryptocurrencies. This may involve defining the legal status of various digital assets, specifying regulatory requirements for exchanges, and addressing concerns related to investor protection and financial stability.⁵⁰

Given the international nature of cryptocurrencies, there could be increased efforts for global coordination in regulatory approaches. Organizations like the Financial Action Task Force (FATF) may play a crucial role in setting international standards to combat money laundering and terrorist financing, influencing how individual countries shape their regulations.⁵¹

As cryptocurrencies become more mainstream, regulators might work towards integrating them into existing financial systems. This could involve developing frameworks for central bank digital currencies (CBDCs)

⁴³Morton, H. (2021). Cryptocurrency 2021 Legislation. NCSL.

⁴⁴Strohm, C. (2022, February 17). *US Justice Department taps new Cryptocurrency czar*. Retrieved from Aljazeera: https://web.archive.org/web/20220219142640mp_/https://www.aljazeera.com/economy/2022/2/17/us-justice-department-taps-new-cryptocurrency-czar. ⁴⁵CNBC. (2022, November 22). *5 countries that could be next in line to adopt Bitcoin as a legal tender*. Retrieved from CNBC TV 18 News: https://www.cnbctv18.com/cryptocurrency/bitcoin-as-legal-tender-5-countries-that-could-be-next-in-line-to-adopt-15228761.htm. Crypto assets and central bank digital currencies, protentional implications for developing countries. (2023). United Nations Conference on Trade and Development (pp. 1-52). United Nations.

⁴⁶Taherdoost, H. (2023). Smart Contracts in Blockchain Technology: A Critical Review. MDPI.

⁴⁷Vincent Gramlich, T. G. (2023). A multivocal literature review of decentralized finance: Current knowledge and future research avenues. Electron Markets.

⁴⁸Sedlmeir, J. L. (2022). *The transparency challenge of blockchain in organizations*. Electron Markets.

⁴⁹Werbach, K. (2018). *Trust, but Verify: Why the Blockchain Needs the Law*. Berkeley Technology Law Journal, 487-550.

⁵⁰Moretti, A. N. (2022, September). *The right rules could provide a safe space for innovation*. INTERNATIONAL MONETARY FUNDS. Retrieved from INTERNATIONAL MONETARY FUNDS.

⁵¹Parma Bains, A. I. (2022). Regulating the Crypto. Fintech Notes.

and exploring ways to harmonize traditional financial regulations with emerging decentralized technologies.⁵² Concerns about consumer protection, fraud prevention, and ensuring the security of user funds are likely to be central to future regulatory efforts. Striking a balance between innovation and safeguarding users will be crucial for sustainable cryptocurrency adoption. Regulatory responses may adapt to technological advancements, including developments in blockchain technology, smart contracts, and decentralized finance (DeFi). Regulators may need to continually assess and update regulations to keep pace with the evolving landscape. Increasing participation from institutional investors and traditional financial institutions in the cryptocurrency space may influence regulatory approaches. Regulators may seek to provide a framework that addresses the unique characteristics of cryptocurrencies while accommodating institutional interests. It is important to note that the trajectory of cryptocurrency laws will likely vary by jurisdiction, reflecting the diverse approaches taken by different countries. As the industry continues to mature, a balance between fostering innovation and ensuring regulatory compliance will be crucial for the sustainable development of the cryptocurrency ecosystem.53

Conclusion

The world of cryptocurrency law and economics is continually evolving. At its core, the legal and economic land-scape around cryptocurrencies is complex, involving issues of regulation, decentralization, taxation, and technological innovation.⁵⁴ While some countries have embraced cryptocurrencies, others have been cautious, implementing various regulations to address concerns about fraud, security, and money laundering. Economically, cryptocurrencies have introduced new models of finance, challenged traditional systems, and offered potential benefits like increased financial inclusion and faster, borderless transactions. However, volatility, regulatory uncertainty, and environmental concerns remain important factors shaping the future of cryptocurrency law and economics.⁵⁵

⁵²Crypto assets and central bank digital currencies, potential implications for developing countries. (2023). United Nations Conference on Trade and Development (pp. 1-52). United Nations.

⁵³Dirk A Zetzsche, D. W. (2022). Decentralized Finance. Journal of Financial Regulation, 172-203.

⁵⁴PwC. (2022). PwC Global Crypto Regulation Report 2023. Basel Committee on Banking Supervision.

⁵⁵Fund, I. M. (2023, February 8). *IMF POLICY PAPER ELEMENTS OF EFFECTIVE POLICIES FOR CRYPTO ASSETS*. Retrieved from IMF.