

CRYPTO REGULATION AND INNOVATION: STRIKING THE OPTIMUM BALANCE**AUTHOR** – GARIO MENDEZ, STUDENT AT CHRIST(DEMMED TO BE UNIVERSITY), BANGALORE**BEST CITATION** – GARIO MENDEZ, CRYPTO REGULATION AND INNOVATION: STRIKING THE OPTIMUM BALANCE, INDIAN JOURNAL OF LEGAL REVIEW (IJLR), 4 (1) OF 2024, PG. 386-394, APIS – 3920 – 0001 & ISSN – 2583-2344.**ABSTRACT**

The cryptocurrency industry's continuous growth, combined with a succession of exchange failures, has spurred several debates about the necessity for regulatory frameworks. Regulators worldwide have expressed worry about the hazards presented by digital assets, with some attempting to control as much of the space as feasible. Cryptocurrencies have been associated with fraud, money laundering, market manipulation, and other financial crimes, which have undermined the credibility of the industry and posed significant challenges for regulators.

One of the main attractions in the market is the continuous innovations in the crypto space. The main attraction in the crypto market is the limited regulatory mechanisms prevalent, which provides for the investors and traders, with various opportunities for innovation. Over the past few years, various new cryptos have been introduced, along with newer innovations such as Defi and NFT's.

In the fast-changing ecosystem of cryptocurrency and blockchain technology, regulators, industry participants, and stakeholders face a tough dilemma when it comes to regulation and innovation. Various reasons emerge, which pushes the agencies to adopt policies for crypto regularions. While some individuals argue for implementing strict regulations in the crypto space, others argue against the same, stating innovation hurdles.

This research investigates the vital importance of finding the right balance between regulatory monitoring and enabling innovation in the cryptocurrency ecosystem.

Key words: Crypto regulation, Innovation, Money-Laundering, investor protection

1) INTRODUCTION

Before dwelling into the regulatory and innovation aspects of cryptocurrency, it is imperative to understand what crypto is and how blockchain technology functions. In simple language, Cryptocurrency refers to a type of digital asset that uses distributed ledger, or blockchain, technology to enable a secure transaction⁷⁸⁶. The Financial Action Task Force (FATF) defines a crypto asset as a representation in a digital form, a value that can be traded or transferred digitally, which can be used as a mode of payment or for the

purposes of investments. It acts as an alternative to traditional currencies.

Cryptocurrency (or crypto coins) is a form of crypto asset which uses their own blockchain. A blockchain is a string of bundled digital records of completed cryptocurrency transactions during a specified time on a network collectively forming a ledger that is open to public view⁷⁸⁷. The blockchain technology is most widely known for its imminent use in cryptocurrency systems, which helps in maintaining safe and secure transactions. Since the introduction of Bitcoin in 2009, blockchain technologies have extended to other cryptos, smart contracts and Non-Fungible Tokens (NFTs). Blockchains are

⁷⁸⁶ Hårdle, Wolfgang & Harvey, Campbell & Reule, Raphael. (2020). Understanding Cryptocurrencies*. Journal of Financial Econometrics. 18. 181-208. 10.1093/jjfinec/nbz033.

⁷⁸⁷ Blockchain, Blacks law Dictionary, 11th edition.

similar to databases or spreadsheets. In a traditional spreadsheet, basic information is entered and stored in a digital form. The main difference between a traditional ledger and a blockchain is the mode by which data is accessed and structured. It consists of various programmes called scripts, which are involved in entering information and storing it. As mentioned earlier, data is distributed across various machines or network nodes, situated at various locations worldwide. This maintains fidelity of data, Eg: If any person attempts to alter data in a single node, the other nodes prevent the alteration. This way, no single node within the network can alter the data held within it. The main feature of blockchain tech is the transparency of transactions. This allows users to track bitcoin and other cryptos that use blockchain technology.

As of today, more than 8000 different cryptocurrencies have been launched and are being circulated worldwide. Since 2016, the number of crypto users has increased exponentially, from 5 million to 101 million as recorded in 2020. Cryptocurrencies such as Ethereum (ETH), Bitcoin (BTC) and Binance Coin (BNB), have attracted a lot of investments, from the big-time investors in the Wall Street to everyday individuals. However, on one hand, its decentralised structure and lack of regulatory control have generated concerns about safety for customers, market manipulation, and money laundering for terrorist activities. Anonymous cryptos, where transactions are practically untraceable as opposed to cryptos registered on the blockchain, may be used for illicit acts which may act as an externality to the Cryptocurrency market, putting the investors at risk from the market vulnerabilities. On the other hand, various crypto enthusiasts and libertarian minds have emphasised on the need for decentralized nature of the market on grounds of fostering innovation.

This paper looks to explore various ways to balance innovation and crypto regulation, taking into consideration the jurisdictional gaps in regulation and various ways to handle the

same, along with discussing various risks associated with respect to having limited to no regulation in the crypto market. Finally, this paper dwells into how regulation may hamper innovation and affect the investors. This research also provides for certain solutions to strike an optimum balance, by having a collaborative approach between regulators and the crypto industry.

2) NEED FOR REGULATION

Regulation in crypto refers to the rules, laws, and guidelines set by governments or regulatory bodies to govern the use, trading, and issuance of cryptocurrencies and related activities. These regulations can vary significantly from one country to another and can cover a wide range of aspects. USA, for example, in 2022, released its comprehensive framework for effective development of digital assets. This framework pushed for action from existing regulators such as the Securities and Exchange Commission (SEC) and the Commodity Futures Trading Commission (CFTC). This framework includes various guidelines, advocated for customer protection, fostering financial stability, as well as advancing responsible innovation. It came after President Joe Biden's executive order on [Ensuring the Responsible Development of Digital Assets](#)⁷⁸⁸, which marked the first unified move by the U.S. government to propose a regulatory system for crypto space. The Order lays out a national policy for digital assets across six key priorities: consumer and investor protection; financial stability; illicit finance; U.S. leadership in the global financial system and economic competitiveness; financial inclusion; and responsible innovation⁷⁸⁹.

Cryptocurrencies have been associated with fraud, money laundering, market manipulation, and other financial crimes, which have undermined the credibility of the industry and posed significant challenges for regulators. The need for regulation in the cryptocurrency space

⁷⁸⁸ The White House, Fact sheet: <https://www.whitehouse.gov/briefing-room/statements-releases/2022/03/09/>

⁷⁸⁹ The White House, Fact sheet: <https://www.whitehouse.gov/briefing-room/statements-releases/2022/03/09/>

arises from several factors, mostly w.r.t the potential risks to financial stability, investor protection, and the prevalence of illicit activities. Provided below are a few of the reasons for necessary regulation in the crypto arena.

1. **Risks to financial stability:** The likelihood of market manipulation increases in the absence of regulatory supervision. Pump-and-dump frauds, price manipulation, and other fraudulent operations have the potential to distort market prices and cause investors to incur substantial losses. Further, in an unregulated atmosphere, fraudulent schemes and scams become increasingly common. Ponzi schemes, phoney ICOs, and phishing assaults on cryptocurrency users have the potential to cause significant financial losses and destroy industry trust.

In addition to the aforementioned risks, cryptocurrency exchanges and wallets are frequent targets for cyberattacks due to their digital nature and the lack of robust security standards. Hacks and security breaches can result in the loss of funds and undermine confidence in the entire crypto ecosystem.

2. **Investor Protection:** Individuals looking to invest in the crypto market would be expecting a certain degree of security standards which would safeguard their investments. In the absence of regulatory safeguards, investors may be exposed to higher risks without adequate disclosure, transparency, or recourse mechanisms. The lack of investor protection measures can deter mainstream adoption and participation in the crypto markets. Regulatory regimes frequently impose transparency and disclosure obligations on cryptocurrency issuers, exchanges, and other market players. This means that investors are given critical information regarding the risks, terms, and circumstances related with their

investments, allowing them to make informed decisions. These Obligations include the Anti-Money Laundering (AML) and Know Your Customer (KYC) measures for cryptocurrency exchanges and service providers.

These procedures contribute to the prevention of money laundering, terrorist funding, and other illicit activities, thus safeguarding investors and preserving the financial system's integrity. Further, regulations also require exchanges to implement market surveillance mechanisms to detect and prevent market manipulation and insider trading. Some jurisdictions allow for the creation of regulated investment products, such as cryptocurrency exchange-traded funds (ETFs) or investment trusts. These products are subject to regulatory oversight. These measures help maintain fair and orderly markets, protecting investors from unfair trading practices and ensuring market integrity and ensuring some degree of regulatory oversight.

3. **Market Integrity:** As mentioned earlier, regulatory controls mitigate the risks in the highly-volatile crypto space, thus safeguarding the investments of investors from money-laundering and illicit activities. Regulation promotes market integrity by setting standards for fair trading practices, preventing insider trading, and detecting and deterring market manipulation. This fosters trust and confidence in the market, attracting more participants and investment. Regulatory bodies might carry out market surveillance to uncover abnormal trading patterns and probable cases of market manipulation. Through enforcement efforts, authorities can hold perpetrators accountable and deter further conduct violations, thus safeguarding market integrity.

4. **Market Development:** In any market, certain measures are to be adopted to ensure further sustainability and development. Regulation encourages competition, innovation, and ethical business practices, all of which can aid in the growth of a stable and healthy cryptocurrency market. It promotes the development of trustworthy infrastructure that may draw institutional investors and widespread adoption, such as custodial services, regulated exchanges, and investment products. A clear and well-defined regulatory framework can attract institutional investors, such as hedge funds, asset managers, and pension funds, to enter the crypto market. Such institutional participation brings liquidity, capital, and professional expertise, contributing to market development and maturity. Regulatory monitoring also fosters the creation of strong market infrastructure, such as regulated exchanges, custodial services, and trading platforms. This infrastructure provides critical services including as price discovery, liquidity provision, and asset custody, all of which contribute to the crypto market's efficiency and growth. While it is true that regulation imposes certain constraints, it also fosters innovation and competition by providing a clear regulatory framework within which businesses can operate. These aforementioned attributes foster market development.
5. **Global Coordination:** The worldwide scope of the cryptocurrency industry necessitates regulatory cooperation between various jurisdictions in order to resolve cross-border concerns, standardise regulatory strategies, and avoid regulatory arbitrage. Cooperation between nations can improve the efficacy of regulations and provide fair competition for global market players. Since cryptocurrencies are trans-

national and decentralised, global coordination in their regulation is vital. Here are how regulations could ensure international cooperation:

A) International Standards: To regulate cryptocurrencies and prevent money laundering and terrorist funding, regulatory bodies and organisations, like the Financial Action Task Force (FATF), create worldwide standards and recommendations. The guidelines from the FATF brings about the application of a risk-based approach to activities involving virtual assets. These guidance's include supervision of Virtual Asset Service Providers (VASPs) for anti-money laundering purposes, along with similar guidance's. By encouraging uniformity and harmonisation across jurisdictions, these standards make it easier for regulatory activities to be coordinated globally.

B) Information Sharing: Regulatory authorities cooperate and share information on new hazards, market trends, and regulatory measures through international organisations including the International Organisation of Securities Commissions (IOSCO) and the Group of Twenty (G20). This information exchange helps regulators identify typical challenges and optimal procedures, allowing them to better coordinate their responses.

C) Cross-Border Enforcement: Regulators collaborate on cross-border enforcement operations to combat illegal activity, fraud, and misbehaviour in the cryptocurrency market. Agencies can investigate and bring charges against offenders who operate in various jurisdictions through mutual legal assistance agreements and extradition treaties,

which prevent illicit operations and promote market integrity.

- D) **Regulatory dialogues:** Regulatory discussion and engagement forums enable regulators from various jurisdictions to exchange ideas, share circumstances, and explore regulatory methods. These discussions contribute to mutual understanding and trust amongst regulators, promoting collaboration as well as coordination in addressing common regulatory concerns.
- E) **Multilateral Agreements:** Multilateral agreements and treaties, such as free trade pacts and regional cooperation frameworks, may include provisions for crypto legislation and financial oversight. These accords encourage member countries to cooperate and establish common regulatory principles and standards.
- F) **International Organisations:** The International Monetary Fund (IMF) and the World Bank promote worldwide coordination in crypto regulation through research, capacity-building programmes, and policy recommendations. These organisations encourage discussion between member countries and provide technical support to aid the development of systematic frameworks.

It is imperative the systematic regulatory frameworks are required to ensure efficient conduct in the crypto market. As mention above, Global coordination in cryptocurrency regulation is critical for addressing cross-border difficulties, promoting regulatory uniformity, and fostering trust and confidence in the global crypto market. By mutual coordination, regulators may more effectively be able to safeguard investors, reduce risks, and preserve the global financial system's integrity and stability.

3)IMPACT ON INNOVATION

The main attraction in the crypto market is the limited regulatory mechanisms prevalent, which provides for the investors and traders, with various opportunities for innovation. But there also exists downsides to the same, as mentioned in the previous section. Cryptocurrencies are freewheeling, not beholden to country borders or specific agencies within a government⁷⁹⁰. Crypto innovation refers to the creation and advancement of new technology, goods, and services in the cryptocurrency and blockchain ecosystems. It includes a wide range of inventions that use blockchain-based technologies, cryptographic techniques, and decentralised networks to develop new solutions for a variety of industries and use cases. Over the past few years, various developments have emerged in the crypto space, such as:

- A) **Cryptocurrencies:** The introduction of newer cryptocurrencies, such as Bitcoin, Ethereum, dogecoin, Ripple and hundreds of other altcoins, represents a fundamental shift in the crypto landscape. These virtual currencies enable peer-to-peer transactions and borderless payments, fundamentally altering the concept of money and the mode of transacting. Moreover, introduction of various crypto exchanges, both Centralised and Decentralised Exchanges, have brought about innovation. A Decentralised Exchange (DEX) is a P2P arena that acts as an intermediary bridging the buyers and sellers. These exchanges provide direct control to its users of their private keys when transacting on such platforms.
- B) **Decentralised Finance (DeFi):** DeFi is an extensive category of financial apps built on blockchain technology that seek to

⁷⁹⁰ Rakesh Sharma: Bitcoin has a Regulation Problem, March 17,2024.
<https://www.investopedia.com/news/bitcoin-has-regulation-problem/>

reproduce traditional banking services in a decentralised manner. DeFi platforms provide financing, borrowing, trading, and asset management without the involvement of intermediaries such as banks or brokers.

- C) Non-Fungible Tokens (NFTs): NFTs are one-of-a-kind digital assets that serve as proof of ownership or validity for digital or physical items. They have grown in popularity in fields such as digital art, collectibles, gaming, and intellectual property rights. NFTs allow creators to monetise their work, while consumers can demonstrate ownership and securely transfer digital goods.

These innovations have arisen due to the limited restrictions in the crypto space, allowing individuals to innovate and contribute towards the development of the market. However, as discussed earlier, individuals and governments stress upon the need for regulations at least in relevant arenas to combat the money laundering issues. The impact of regulations on crypto may prove to be positive or negative and innovation can vary depending on the nature and scope of the regulations. Following are few of the effects:

1. Compliance cost and market entry barriers: Crypto companies might require the assistance of legal and regulatory specialists to manage the complex regulatory framework. Legal and compliance consulting expenses can be high, especially for small enterprises with limited resources. They would further be burdened with the obligation to collect, verify, and keep detailed records on customers, transactions, and business activities. Compliance with reporting standards, such as suspicious activity reporting (SAR) and transaction surveillance, can result in significant administrative load and expenditures for gathering, analysing, and submitting data.

Moreover, new arrivals to the cryptocurrency market may face entry difficulties due to regulatory compliance requirements. Startups and small enterprises may struggle to meet regulatory norms such as licencing requirements, capital adequacy levels, and AML/KYC compliance. These constraints may limit the number of new businesses entering the market, diminishing competition and innovation.

2. Risk aversion: Stringent laws may cause risk aversion between investors and entrepreneurs, who may view regulatory ambiguity and compliance issues as impediments to innovation. This may slow investment in new initiatives and ventures, stifling creativity and entrepreneurship in the cryptocurrency field.

Regulations may initially cause uncertainty in the cryptocurrency market as participants try to grasp the consequences of new restrictions. Uncertainty regarding how regulations will be enforced, interpreted, or altered might cause investors and enterprises to be cautious and take a wait-and-see strategy. Also, investors may see regulatory risks as a deterrent to investing in cryptocurrencies or crypto-related enterprises. Concerns regarding regulatory crackdowns and enforcement.

3. Innovation incentives: Regulatory certainty and clarity can encourage innovation by lowering businesses' uncertainty and legal risks. Well-designed regulations that achieve a balance between investor protection and innovation can foster the development of new technology and business models by entrepreneurs, at the same time protecting the interest of the investors. Further, clear and enforced laws can boost market confidence and trust among investors in the

cryptocurrency ecosystem. This could attract larger numbers of investors and institutional players, boosting investment in innovative ventures and driving the adoption of new technology.

Overall, the impact of regulations on crypto innovation is multifaceted and complicated, with both positive and negative consequences depending on the legal framework and its implementation. It is imperative that striking the correct balance among regulatory oversight and innovation incentives is critical for creating a vibrant and responsible cryptocurrency ecosystem that benefits users, investors, and society as a whole.

4) STRIKING THE OPTIMUM BALANCE

Striking the optimum balance between crypto regulation and innovation requires careful consideration of various factors to ensure that regulatory frameworks promote innovation while safeguarding investor protection, market integrity, and financial stability. As seen in the example of USA's crypto guidelines, over-regulation and stringent restrictions could drive away investors, thus affecting the market and its innovation. In contrast to the US, Hong Kong and Singapore have taken an investor friendly approach to regulating the crypto market. In Hong Kong, the city-state released its policy statement on virtual assets, which proposed allowing retail investors to trade in cryptocurrencies⁷⁹¹. Under its new policy, retail investors are provided with the opportunity to trade virtual assets and the Securities and Futures commission are given the green light to proceed with the issuance of licenses for trading. The market has responded positively to the Hong Kong government's attempts to make the region a global crypto hub⁷⁹². In a press release by the Government, comments had been made on market development. On market development, the government has advanced

securities rules to allow regulated intermediaries to offer trading of eligible VA Futures ETFs to retail investors in Hong Kong; making Hong Kong a pioneer in the Asian market⁷⁹³.

Singapore too took on an investor-friendly approach. However, the Southeast Asian hub has adopted a more cautious approach to regulating the crypto industry⁷⁹⁴. Recently, the country has ordered crypto service providers in the region to transfer all user funds to a statutory trust before the end of the year. It said the new rules will "mitigate the risk of losses or misuse of customers' assets, and facilitate the recovery of customers' assets" in case of insolvency⁷⁹⁵.

It can be seen that over-regulation and under-regulation may reflect on the credibility and development of the crypto market in the future. As a result, it is imperative to strike an optimum balance. Regulators should take a risk-based approach to regulation, focusing on tackling the most significant dangers to investors, consumers, and the broader financial system while minimising unnecessary barriers to innovation. Unnecessary barriers lead to increased costs, especially compliance costs on small businesses and agencies, who might find it difficult to comply with over imposition of laws. Regulations should be proportionate to the risks presented by various activities, products, and market participants. Regulations to combat money laundering and other illegal activities should not limit investors' freedom to innovate and impede progress.

Requirements should also be proportional to the scale, complexity, and systemic significance of cryptocurrency firms and activities. Regulators should avoid enacting one-size-fits-all laws that unfairly punish small and creative firms.

⁷⁹¹ Ruholamin Haqshanas: Crypto Regulation Challenges: Balancing Innovation and Investor Protection, 6July,2023. <https://www.techopedia.com/crypto-regulation-challenges>

⁷⁹² Ruholamin Haqshanas: Crypto Regulation Challenges: Balancing Innovation and Investor Protection, 6July,2023. <https://www.techopedia.com/crypto-regulation-challenges>

⁷⁹³ SFST's speech at Aspen Digital Web 3 Investment Summit, The Government of Hong Kong Special Administrative region, Press releases, [SFST's speech at Aspen Digital Web 3 Investment Summit \(English only\) \(info.gov.hk\)](https://www.sfst.gov.hk/en/press-releases/sfst-speech-at-aspen-digital-web-3-investment-summit-english-only)

⁷⁹⁴ Supra at 6

⁷⁹⁵ MAS Publishes Investor Protection Measures for Digital Payment Token Services, Media releases,3 July,2023, [MAS Publishes Investor Protection Measures for Digital Payment Token Services](https://www.mas.gov.sg/press-releases/mas-publishes-investor-protection-measures-for-digital-payment-token-services)

Flexible regulatory approaches, can meet the various requirements and hazards of market participants.

5) CONCLUSION

In essence, through examples of the three countries, it is acknowledged that regulations in some sense is required for protection of the interests of Investors. However, over-regulation in the crypto arena would hamper development and innovations. Countries, while drafting policies, should bear in mind all facets associated with crypto innovation and investor protection, to ensure the susceptibility of the market.

In the dynamic realm of digital currencies and blockchain technology, striking the right balance between regulation and innovation is critical to fostering a flourishing and sustainable ecosystem. As governments and regulatory organisations throughout the world wrestle with the complexity of governing this emerging industry, it is critical to adopt policies that encourage innovation while protecting investor interests, market integrity, and financial stability, as mentioned before. Clear and accessible regulatory frameworks lay the groundwork for regulatory stability and predictability, inspiring trust in firms, investors, and consumers. Implementing a risk-based approach to regulation allows regulators to efficiently handle the most serious threats while minimising excessive burdens on innovation. Proportionate regulation guarantees that regulatory requirements are suited to the size, complexity, and systemic importance of crypto firms.

Flexibility and adaptability are essential characteristics of good regulatory frameworks, allowing regulations to evolve in response to shifting market dynamics, emerging threats, and technology advancements. Regulations should not be rigid, ample flexibility must be given recognition, keeping in mind the dynamic environment of the market. Global coordination and collaboration among regulators promote regulatory uniformity, harmonises procedures. To summarise, striking the right balance

between cryptocurrency regulation and innovation necessitates a sophisticated and collaborative strategy that prioritises regulatory clarity, proportionality, innovation-friendliness, and adaptability. By embracing these concepts, regulators may develop a regulatory framework that promotes innovation, protects investors, and secures the crypto ecosystem's long-term viability and success.