



DECEMBER 2023

# THE CHALLENGES OF CRYPTO REGULATION

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Edited by: Aaryan Panchal

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**IB2312003**

# INTRODUCTION

Crypto assets have seen explosive growth in recent years. This is a new technological innovation that has revolutionised various aspects of the world such as financial markets, investments, currencies, hedge funds, etc. As is the case with all new developments, new questions have been raised about this new phenomenon. These questions range from a demand for a better comprehension of this unique technology to an understanding of the risks it poses. There is also a call for the establishment of a regulatory framework to ensure that crypto assets are not misused. The lack of an effective regulatory and legal framework can result in economic instability and increased social costs. Crypto assets do not have a uniform definition. One of the broad definitions of crypto assets is that it denotes digital assets that use cryptography for security and are coins or tokens of distributed ledgers and/or blockchains, including asset-backed tokens.<sup>1</sup> Blockchain has recently emerged as a secure, peer-to-peer platform for verifying digital events and validating transactions in an increasingly decentralized economy.<sup>2</sup> The language and nomenclature around crypto assets, blockchains, and cryptocurrencies is still developing. The language is ever-changing because of the ever-present evolution in digital development. It takes time for people to figure out how to talk consistently about a new topic.<sup>3</sup>

The IMF/World Bank Bali Fintech Agenda<sup>4</sup> (BFA) proposed a framework of high-level issues that countries should consider in their policy decisions, including enabling technologies, ensuring financial sector resilience, addressing risks, and promoting international cooperation.<sup>5</sup> The fast pace at which digital innovations are developing has challenged policymakers to set standards and

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<sup>1</sup> Sugimoto, N., Morozova, A., & Cuervo, C. (2020, January). Regulation of Crypto Assets. *FinTech Notes*, 2019(003), 1. <https://doi.org/10.5089/9781513520315.063>.

<sup>2</sup> Cumming, D.J., Johan, S., & Pant, A. (2019, July 24). *Regulation of the Crypto Economy: Managing Risks, Challenges and Regulatory Uncertainty*. Journal of Risk and Financial Management; Multidisciplinary Digital Publishing Institute. <https://doi.org/10.3390/jrfm12030126>.

<sup>3</sup> Walch, A. (2017). The Path of Blockchain Lexicon. *Review of Financial and Banking Law*, 36, 728.

<sup>4</sup> The Bali Fintech Agenda. (2018). *Policy Papers*, 18(050), 1. <https://doi.org/10.5089/9781498309950.007>.

<sup>5</sup> Sugimoto, N., Morozova, A., & Cuervo, C. (2020, January). Regulation of Crypto Assets. *FinTech Notes*, 2019(003), 1. <https://doi.org/10.5089/9781513520315.063>.

regulations that are supervisory and precautionary while at the same time being supportive of healthy innovation. Regulation and supervision are needed when there is sufficient concern that there are potential market failures that bring risks to financial stabilities which warrant the need to protect financial markets, consumers and investors from abuse, etc.<sup>6</sup>

## WHY ARE CRYPTO ASSETS DIFFERENT?

The practicality and necessity of cryptocurrencies remain subject to debate.<sup>7</sup> While it makes lofty promises of financial inclusion, stability, efficiency, trust, safety and no environmental damage, the risks associated, in a reality of no regulation, are also huge. Crypto assets cannot be considered necessary until governments across the world legitimise them with legislation. With innovation, investment, reasonable enforceable regulation, and the input of good actors, cryptocurrency has a significant role in the globe's financial future.<sup>8</sup> It is for this reason that it is important to understand what makes crypto assets different. The key design features of crypto assets are different from that of regular financial instruments. This has made it mandatory for policy drafters to pay attention to differences in crypto assets in order to regulate them better. Some of the notable differences, that make it different and difficult for policymakers to regulate crypto assets, include:

- Crypto assets are separated from national authorities – currencies that act as legal tender have the authority and certification from the national governments to be used as such. The central bank of a country extends certain currencies as legal tenders that the common populace can use as a method of transaction. Governments can make fiscal and monetary policy decisions on the legal currencies. They can also regulate foreign exchange markets and decide the impact that these markets will have on the currencies. However, crypto assets are not backed by government institutions. The value of the crypto assets is determined by the people using

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<sup>6</sup> Id.

<sup>7</sup> Beeken, B. (2023, Oct. 25). Do We Really Need Cryptocurrency? *LinkedIn*. [https://www.linkedin.com/pulse/do-we-really-need-cryptocurrency-brendan-beeken-finstsmm-r3lcf?trk=public\\_post#:~:text=By%20leveraging%20blockchain%20technology%2C%20cryptocurrencies,included%20in%20the%20global%20economy.](https://www.linkedin.com/pulse/do-we-really-need-cryptocurrency-brendan-beeken-finstsmm-r3lcf?trk=public_post#:~:text=By%20leveraging%20blockchain%20technology%2C%20cryptocurrencies,included%20in%20the%20global%20economy.)

<sup>8</sup> Id.

the crypto assets. The crypto assets are decentralised and spread across the globe; a challenge in the regulation is also the lack of jurisdiction.<sup>9</sup>

- Crypto assets enable digital and borderless economies – Transactions that don't need a supervisory authority or an intermediary have been on the rise, across the planet. Globalization has led to global networks and re-drawn economic boundaries.<sup>10</sup> Within this globalized network, consumers and transactors are present across multiple physical locations. This also acts as a major challenge in the regulation of crypto assets; there is no jurisdiction or single location where laws, regulations, and policies can be applied.

## REGULATORY CHALLENGES OF CRYPTO ASSETS

A crypto asset is a cryptographically secured digital representation or contractual rights that uses some type of distributed ledger technology (DLT) and can be transferred, stored, or traded electronically.<sup>11</sup> Regulation of crypto assets is extremely important as their investment, creation, and trading is what has led to the increasing prominence of blockchain and distributed ledger technology.<sup>12</sup>

Crypto assets don't have any specific features. They can be multiple things and have multiple uses. A crypto asset can be a security, a commodity, as well as a currency. Crypto assets like Bitcoin are

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<sup>9</sup> Elliott, D.J., & Lima, L.D. (2018, October). Crypto-Assets: Their Future and Regulation. *Oliver Wyman*. [https://www.atlantafed.org/-/media/documents/news/conferences/2018/1018-financial-stability-implications-of-new-technology/papers/elliott\\_crypto-assets.pdf](https://www.atlantafed.org/-/media/documents/news/conferences/2018/1018-financial-stability-implications-of-new-technology/papers/elliott_crypto-assets.pdf).

<sup>10</sup> Id.

<sup>11</sup> Crypto assets Taskforce Report. (2018, October). [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/752070/cryptoassets\\_taskforce\\_final\\_report\\_final\\_web.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/752070/cryptoassets_taskforce_final_report_final_web.pdf).

<sup>12</sup> Id.

being used as a method of payment. There are various other ways in which crypto assets can be used; some are used as global stores of value (Bitcoin), and others are digital commodities (raw inputs) required for building decentralized applications (Ether).<sup>13</sup> Since the network of crypto assets is extremely decentralized, its governance also needs to be decentralized. There is no single ‘entry point’ into the network and outcomes are not easily influenceable. There exists a network of consumers and different stakeholders that make decisions regarding their transactions and involvement in the crypto network. Decisions are not made by any central authority and consensus on such decisions is very difficult to achieve.<sup>14</sup>

Activities under cryptoassets are being regulated similarly to other financial tools and financial activities that exist. There are some financial activities that can be conducted via crypto assets as well as other non-crypto means. The latter already falls under the regulatory ambit of the governments. For example, nations are beginning to require digital wallets and crypto asset exchanges to follow broadly the same ‘Know Your Customer’ and anti-money laundering rules as apply to other financial institutions.<sup>15</sup> This has afforded more consistency to regulation drafters as well as the consumers of these financial tools. The continuous evolution of technological innovations makes it a challenge to consistently keep new developments covered under the definition of crypto assets. Regulation also shifts and evolves according to the purpose and intent with which regulation is sought. Crypto assets and their varied uses ensure that regulatory objectives and aims are varied.

However, while regulation of crypto assets is extremely important and necessary to protect consumers from future risks, it is also important to note that regulation will not immediately alleviate all potential risks and illegal behaviours. Crypto assets lack a regulator and that is the key difference between it and other financial institutions and tools. One of the biggest legal challenges

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<sup>13</sup> Elliott, D.J., & Lima, L.D. (2018, October). Crypto-Assets: Their Future and Regulation. *Oliver Wyman*. [https://www.atlantafed.org/-/media/documents/news/conferences/2018/1018-financial-stability-implications-of-new-technology/papers/elliott\\_crypto-assets.pdf](https://www.atlantafed.org/-/media/documents/news/conferences/2018/1018-financial-stability-implications-of-new-technology/papers/elliott_crypto-assets.pdf).

<sup>14</sup> Elliott, D.J., & Lima, L.D. (2018, October). Crypto-Assets: Their Future and Regulation. *Oliver Wyman*. [https://www.atlantafed.org/-/media/documents/news/conferences/2018/1018-financial-stability-implications-of-new-technology/papers/elliott\\_crypto-assets.pdf](https://www.atlantafed.org/-/media/documents/news/conferences/2018/1018-financial-stability-implications-of-new-technology/papers/elliott_crypto-assets.pdf).

<sup>15</sup> Id.

that occur because of this is increased money laundering. It is important to strike a balance between the costs and benefits of crypto regulation.<sup>16</sup>

## LEGAL CHALLENGES OF CRYPTO ASSETS

Since blockchain and crypto assets are relatively new developments without regulation, all the new projections on what future legal challenges could look like, are just speculation. Since blockchain works on anonymity, there is a possibility of illegal activities taking place over the network without anyone else being aware of the same. Transactors and consumers, on the crypto network, are able to conduct activities without revealing their identities. Hence, illegal activities and the transactors conducting illegal activities are not known by the authorities. This poses a significant challenge for the law enforcement agencies. Bill Gates, has recently commented on how the anonymity that cryptocurrencies, Bitcoin, and initial coin offerings ('ICOs') offer can create difficulties for the pursuit of criminals by law enforcement agencies.<sup>17</sup>

Even among different types of crypto assets, some afford more privacy and anonymity than others. There is a rising trend in demand for crypto assets with privacy features that make them more difficult to track using blockchain analysis techniques.<sup>18</sup> Crypto assets and cryptocurrencies like Monero are now the fifth largest by market capitalization and are predominantly used for dark web transactions.<sup>19</sup> The need of the hour is a perfect balance between freedom and anonymity while conducting financial transactions using crypto assets with some oversight and surveillance by governments and security agencies to monitor illegal activities.

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<sup>16</sup> Gamble, C. (2017). The Legality and Regulatory Challenges of Decentralised Crypto-Currency: Western Perspective. *International Trade and Business Law Review*, 20, 346-361.

<sup>17</sup> QC, D. A., Hyde, D., & Thomas, S. (2019). *Blockchain and cryptocurrency: International legal and regulatory challenges*. Bloomsbury Professional.

<sup>18</sup> Id.

<sup>19</sup> QC, D. A., Hyde, D., & Thomas, S. (2019). *Blockchain and cryptocurrency: International legal and regulatory challenges*. Bloomsbury Professional.

As mentioned above, one of the major concerns with the increased use of crypto technology is the increase in and facilitation of money laundering. Silvio Schembri, Malta's Junior Minister for Financial Services, Digital Economy, and Innovation, in stating that Malta has opted for legislation to manage the concern regarding fraudulent ICOs, expressed the following view,<sup>20</sup>

*“When certain countries say that cryptocurrencies are being used for money laundering or for terrorism (and the bad things associated with the black economy), I state the argument that money laundering is already being done with fiat. Furthermore, fiat is not traceable, while cryptocurrency is. Having said that, if the connectors and people behind a specific cryptocurrency have bad intentions, then yes, crypto can be used for harmful purposes’ therefore ‘having proper regulation that will not stifle innovation will address these issues.”<sup>21</sup>*

Additionally, the medium of transaction for crypto assets is the internet which makes the transactions extremely rapid and untraceable. The use of decentralized technology also makes it possible for users to transact crypto assets without going through financial intermediaries.<sup>22</sup> This further allows them to bypass regulatory obligations.

Moreover, crypto assets currently fall under different regulatory frameworks globally, resulting in uneven or no monitoring of transactions and a lack of information sharing across jurisdictions.<sup>23</sup> Transparency, along with anonymity, is one of the reasons crypto assets are considered to be so powerful. There is a lot of debate on whether some parts of the blockchain and crypto technology can be included under the General Data Protection Regulation (GDPR) framework. Whenever a transaction is carried out over the blockchain, each user is identifiable by a public key that does

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<sup>20</sup> Id.

<sup>21</sup> Wolfson, R. (2018, August 1). Silvio Schembri Explains How Malta Has Become The World's Blockchain Island. *Forbes*. <https://www.forbes.com/sites/rachelwolfson/2018/07/31/silvio-schembri-explains-how-malta-has-become-the-worlds-blockchain-island/?sh=385b80b52cad>.

<sup>22</sup> Sugimoto, N., Morozova, A., & Cuervo, C. (2020, January). Regulation of Crypto Assets. *FinTech Notes*, 2019(003), 1. <https://doi.org/10.5089/9781513520315.063>.

<sup>23</sup> Sugimoto, N., Morozova, A., & Cuervo, C. (2020, January). Regulation of Crypto Assets. *FinTech Notes*, 2019(003), 1. <https://doi.org/10.5089/9781513520315.063>.



not reveal the identity of the user, but the user's transactions can be monitored via the public key.<sup>24</sup> There is debate over whether 'public key' can be considered 'personal data' to fit into the GDPR framework.

Due to the transparent nature of blockchains, all transactions executed via a smart contract 'are propagated across a peer-to-peer network, rendering them publicly visible to network nodes.'<sup>25</sup> However, due to the severely unregulated nature of blockchain transactions, 'smart contracts may lack the necessary elements that make a contract legal. For example, it lacks a confidentiality clause, clarity on the erasure of data, and whether there is a need for an administrator to ensure compliance with the regulations. Under the GDPR, it is made clear that compliance with the regulations is the responsibility of certain specific individuals. The primary responsibility is vested in the data controller.'<sup>26</sup> This, however, is difficult to navigate in a transaction that takes place over crypto assets and blockchain technology. Regulation has historically been aimed at central entities. Decentralized technology is a new development. There are multiple difficulties in using the regulation that is aimed at centralized entities, to regulate decentralized technology.

There are concerns over the protection of intellectual property of transactional information as well.<sup>27</sup> In respect of ownership of data, clarity of the legal position can create rights and obligations, the violation of which would create the right to sue. Crypto technology and blockchain methods of communication can also facilitate the distribution of materials and data that can violate copyright. However, because of anonymity and decentralization, it would be very difficult to figure out whose copyright has been violated and to whom the liability is attributed.

Legally, there is the additional issue of jurisdiction. Due to the decentralized nature of blockchain technology, users and transactors are located all across the world. The blockchain network spans the globe. This automatically means that multiple jurisdictions are involved in any potential

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<sup>24</sup> QC, D. A., Hyde, D., & Thomas, S. (2019). *Blockchain and cryptocurrency: International legal and regulatory challenges*. Bloomsbury Professional.

<sup>25</sup> Id.

<sup>26</sup> QC, D. A., Hyde, D., & Thomas, S. (2019). *Blockchain and cryptocurrency: International legal and regulatory challenges*. Bloomsbury Professional.

<sup>27</sup> Id.

violation of laws. In Europe, GDPR applies to all EU citizens. If there is any processing, storing, or use of the personal data of an individual in the EU, GDPR can apply in that jurisdiction. However, the regulation can only apply to blockchains passing links to the EU.<sup>28</sup> Public blockchains are difficult to regulate because it would be rare for a blockchain transaction to only be limited to the EU, for GDPR to apply.

## INDIA AND CRYPTO REGULATION

In 2019, the Indian government published the draft National e-Commerce Policy. The draft policy mentioned the period of 3 years for implementation. Additionally, there is also a Digital Personal Data Protection Bill, 2023. The draft proposals make a great play of a desire to achieve “the protection of personal data and empower the users/consumers to have control over the data they generate and own.”<sup>29</sup> The proposal also mentions stern and swift action in case corporates are found processing the personal data of individuals without explicit consent. However, the proposals are increasingly protectionist in nature. They allude to creating more restrictions on the cross-border flow of information. The proposals also envision domestic alternatives to foreign-based clouds and email facilities.<sup>30</sup> A potential reason for the protectionist nature of the draft proposal could be the imminent threat, that India faces from China. This could be why India has specifically prohibited sharing of data of Indian citizens, by companies and businesses stored abroad, even with explicit consent. In this provision, social media platforms and search engines (which make up the Big 6 like Amazon, Facebook, Google, etc.) will not be exempt.<sup>31</sup>

Other significant features of the draft policy are that it will mandate all e-commerce websites and applications available for downloading in India, to have a related business entity in India as the

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<sup>28</sup> QC, D. A., Hyde, D., & Thomas, S. (2019). *Blockchain and cryptocurrency: International legal and regulatory challenges*. Bloomsbury Professional.

<sup>29</sup> Id.

<sup>30</sup> QC, D. A., Hyde, D., & Thomas, S. (2019). *Blockchain and cryptocurrency: International legal and regulatory challenges*. Bloomsbury Professional.

<sup>31</sup> Id.

importer on record or the entity through which all sales are transacted.<sup>32</sup> Indian formulation of data protection policy has major deviations from the European standard. One such area where this deviation is visible is; “the data of a country, therefore, is best thought of as a collective resource, a national asset, that the government holds in trust, but rights to which can be permitted.”<sup>33</sup>

India visibly sees the protection and ownership of data as a joint venture between the individual and the state.<sup>34</sup> It is not just that individual data must be protected in order to safeguard the privacy and the interests of Indian citizens. It is equally important to ensure national security. India has experienced multiple security threats from China, with whom it shares both volatile boundaries and hostile relations. Protecting the data of Indian citizens also ensures that Chinese companies and governments do not get to use that data and information for any harmful purposes.

In pursuance of this, India has reiterated multiple times that data must be saved on local servers by data processing entities. The test for determining the scope of data to be regulated by the Bill is data having “connection with any business carried on in India” or “systematic activity of offering goods and services to data principals within India” or “connection with activity which involves profiling of data principles within India.”<sup>35</sup> Certain critical personal data must be processed only in India. An argument can be made that India is lacking in digital liberalization. India has recently increased its emphasis on becoming a digital economy that is set to be valued at \$1 trillion by 2030 and these protectionist measures could set India back. The data regulation framework that India seeks to adopt is very different from the GDPR adopted in the EU. GDPR is extremely liberal in its approach and does not restrict cross-border transfer of data. However, the EU does not face the same security threats that India faces from its neighbours. Hence, while the EU can afford to be extremely liberal over the processing and storage of data by companies that are based abroad, India cannot.

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<sup>32</sup> QC, D. A., Hyde, D., & Thomas, S. (2019). *Blockchain and cryptocurrency: International legal and regulatory challenges*. Bloomsbury Professional.

<sup>33</sup> Id.

<sup>34</sup> QC, D. A., Hyde, D., & Thomas, S. (2019). *Blockchain and cryptocurrency: International legal and regulatory challenges*. Bloomsbury Professional.

<sup>35</sup> Id.

While GDPR has been long called the ‘toughest privacy and security law in the world’, it is far from perfect and holds its fair share of criticism. While it has immeasurably improved the privacy rights of millions of the citizens of the EU, it has not eradicated the worst of the problems; data brokers stockpiling information and selling it.<sup>36</sup> The system legitimized under GDPR to handle international complaints is also slow and gives rise to the frustrations of civil society. The rise of the information and digital economy and the breakneck speed that it moves also hampers the implementation of the GDPR. So far more than a billion euros worth of GDPR fines have been levied — including a record €746 million fine for Amazon and a €225 million penalty for WhatsApp — while several big-ticket penalties for the likes of TikTok and Instagram are in the pipeline.<sup>37</sup> But for activists that are still waiting for regulators to rule on a bevy of complaints that they filed over two years ago, the enforcement so far is too little too late.<sup>38</sup>

## CONCLUSION

Crypto technology must be regulated but the question of ‘how’ remains unanswered.<sup>39</sup> The current unregulated status of crypto assets is unsustainable and needs to change very soon. However, it is not clear how the governments seek to achieve this goal. The data protection regulations across the world were drafted with the increase in the use of social media and e-commerce across the world. While the regulatory framework is successfully keeping a check on data processing and storage, it is still inadequate to deal with crypto assets and to safeguard the interests of users.

There are multiple challenges to regulating crypto assets and blockchain technology. However, one of the biggest issues is the decentralized, autonomous, and rapid nature of transactions. It is possible for hundreds of people, in different places across the world, to engage in transactions that take milliseconds. This poses a significant challenge for both policy drafters as well as law

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<sup>36</sup> Burgess, M. (2022, May 23<sup>rd</sup>). How GDPR is Failing. *Wired*. <https://www.wired.co.uk/article/gdpr-2022>.

<sup>37</sup> Manancourt, V. (2022, June 15<sup>th</sup>). What’s wrong with the GDPR? *Politico*. <https://www.politico.eu/article/wojciech-wiewiorowski-gdpr-brussels-eu-data-protection-regulation-privacy/>.

<sup>38</sup> *Id.*

<sup>39</sup> Gamble, C. (2017). The Legality and Regulatory Challenges of Decentralised Crypto-Currency: Western Perspective. *International Trade and Business Law Review*, 20, 346-361.

enforcement agencies. The gap between law and technology is ever widening<sup>40</sup> and law must catch up soon to curb the violations of fundamental freedoms of citizens.

Traditional forms of regulations that are targeted towards a central entity that oversees regulations are unfit for decentralised technology like crypto technology. Centralisation involves having an entity that can be held responsible for any violation of rights under its control. It has a defined set of issues. the decentralised nature of cryptocurrency has created an arguably unknown, undefined set of problems: money laundering, terrorism financing, and an illicit goods and services global marketplace.<sup>41</sup> These are issues that require the authorities to intervene. However, it is not clear at which point in the network the intervention should happen or against whom. Without clearly understanding who to target in an intervention, it is difficult to successfully regulate the entities and prohibit illegal activities. Unless authorities take the time to understand the core decentralised nature of crypto-currency and seek to harness, rather than restrain the power of blockchain technology<sup>42</sup>, users of the blockchain technology will find the lack of regulation attractive, and illegal moves will continue increasing. It is the need of the hour to comprehensively understand crypto technology and then regulate the same.

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<sup>40</sup> Id.

<sup>41</sup> Gamble, C. (2017). The Legality and Regulatory Challenges of Decentralised Crypto-Currency: Western Perspective. *International Trade and Business Law Review*, 20, 346-361.

<sup>42</sup> Id.

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