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BLOCKCHAIN – BEYOND CRYPTOCURRENCY: VARIOUS REGULATORY APPROACHES

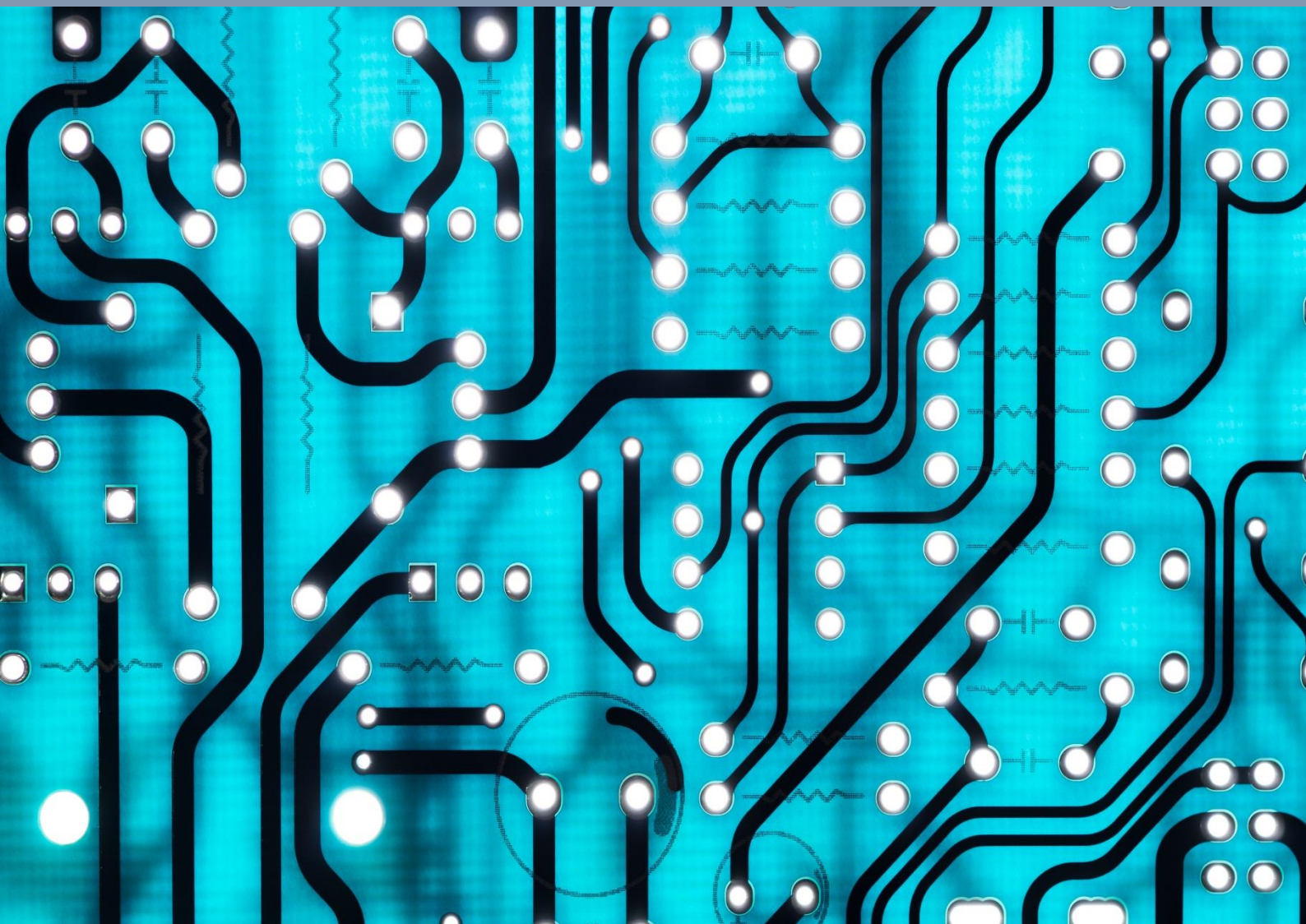


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INTRODUCTION

Emerging technologies like Artificial Intelligence (AI), Blockchain, and the Internet of Things (IoT) are reshaping our world. In the roughly sixteen years since Blockchain was first introduced at scale through the Bitcoin blockchain, its applications have steadily gained traction. Blockchain innovations are emerging across various sectors in India and globally. Unsurprisingly, technology is already posing policy challenges to lawmakers.

While this paper focuses on the intersection of blockchain and regulation, it is crucial to first understand the fundamentals of the technology. This foundational knowledge will help guide the reader on the key regulatory considerations arising from the technology's inherent characteristics.

WHAT IS BLOCKCHAIN TECHNOLOGY?

A simple explanation of the technology is suggested by the World Economic Forum¹ as follows: *“currently, most people use a trusted middleman such as a bank to make a transaction. But Blockchain networks allow consumers and suppliers to connect directly, removing the need for a third party”*.

According to the Organisation for Economic Co-operation and Development (“OECD”)², blockchain is a group of networked databases, which all hold the same set of data which is not stored by a central authority. The network has pre-defined rules that allow users (nodes) to agree on the data contained in the databases – data cannot be added or changed without consensus in the network. This allows the network to agree and record a single set of facts automatically and predictably, without the need for an intermediary.

The three distinctive features of blockchain are that it is (i) distributed or decentralized (ii) immutable, and (iii) changes require agreement by consensus.

Another helpful way of understanding how the technology works is the ‘Google Doc’ analogy³. While blockchain is much more technically complex than a Google Doc, there are some useful similarities. That is, an individual distributes a document with a group when using a Google Doc, as opposed to replicating copies. The fact that everyone can connect to the document at the same time, and no one is excluded from the document while changes occur makes this a decentralized delivery chain. Further to this, the real-time nature of the edits renders the whole process highly transparent.

While the analogy of Google Doc is straightforward, the technical aspects of blockchain are complex, and as such, this paper does not seek to cover every detail. Rather, the aim is to provide an overall understanding of technology, its use cases, key risks arising from the inherent nature of this technology and the policy issues which may be addressed by Governments/ policy makers.

¹ Hutt, R. (2016), “All you need to know about blockchain, explained simply”, World Economic Forum, <https://www.weforum.org/agenda/2016/06/blockchain-explained-simply>

² OECD (2022), Blockchain at the frontier: Impacts and issues in cross-border co-operation and global governance, OECD Business and Finance Policy Papers, OECD Publishing, Paris, <https://doi.org/10.1787/80e1f9bb-en>

³ Boiardi, P. and Stout, E. (2021) “To what extent can blockchain help development co-operation actors meet the 2030 Agenda?” OECD Development Co-operation Working Papers, No 95, OECD Publishing, Paris.

TYPES OF BLOCKCHAIN NETWORKS – PUBLIC AND PRIVATE

Before delving into the range of blockchain applications and the risks emanating from such applications, it is imperative that the different types of blockchain networks are first discussed. Different types of blockchain networks differ from the perspective of functionality and risks.

We discuss three broad categories here:

- Public (permissionless) blockchains
- Public (permissioned) blockchains and
- Private blockchains.

Public, permissionless blockchain networks are decentralized in nature and thus, generally difficult to be captured within the ambit of legal policies. They are also not easily regulated by government agencies. There is also a lack of traceability of the participants involved in such networks. However, blockchains which are centrally controlled, for example, blockchains used by large corporations or governments, are permissioned and only accessible to individuals or entities whose identity is known, making detection and enforcement against criminal activities easier. The table captures the key features of the three different blockchain networks.

S.No	Particulars	Public, Permissionless Network	Public, Permissioned Network	Private, Permissioned Network
1.	Nature of Network	<ul style="list-style-type: none"> ▪ Open networks 	<ul style="list-style-type: none"> ▪ A hybrid between open and closed networks. 	<ul style="list-style-type: none"> ▪ Closed networks which limit the openness of data by design.
2.	Control over the Network	<ul style="list-style-type: none"> ▪ Not one entity has absolute control over the network. (Decentralized) 	<ul style="list-style-type: none"> ▪ Partially centralized 	<ul style="list-style-type: none"> ▪ Centralized
3.	Accessibility	<ul style="list-style-type: none"> ▪ Anyone can participate, download the protocol, read, write and update the status. ▪ All transactions are public. 	<ul style="list-style-type: none"> ▪ Allows anyone to read the ledger, but only a select number of authorized participants are allowed to contribute to the ledger. 	<ul style="list-style-type: none"> ▪ Only select network operators have the rights to override, edit or delete the necessary entries on the blockchain.
4.	Security	<ul style="list-style-type: none"> ▪ Effectively immutable, as the data cannot be altered. 	<ul style="list-style-type: none"> ▪ Partially secure. 	<ul style="list-style-type: none"> ▪ Presence of fewer 'trusted nodes' can also render private networks susceptible to hacking and manipulation of data.
5.	Example	<ul style="list-style-type: none"> ▪ Bitcoin and Ethereum 	<ul style="list-style-type: none"> ▪ Neo: It is a blockchain-based cryptocurrency 	<ul style="list-style-type: none"> ▪ JP Morgan Coin – a blockchain based token

		Blockchain networks.	and application platform used to run smart contracts and decentralized applications. The project, originally named Antshares, was founded in 2014 by Da HongFei and Erik Zhang and rebranded as Neo in 2017.	used to support faster transactions, developed on a network controlled by JP Morgan and only available to the bank's institutional clients. <ul style="list-style-type: none"> Private blockchains used by Governments and private organizations.
6.	Devising legal frameworks and Governance Structures	<ul style="list-style-type: none"> Difficult. 	<ul style="list-style-type: none"> Possible with certain restrictions. 	<ul style="list-style-type: none"> Relatively simple.

USE BEYOND CRYPTOCURRENCY – GLOBAL SCENARIO

For a lay person perhaps, cryptocurrency and blockchain are often used as synonyms/ interchangeably. However, this paper also attempts to break that myth and delve beyond this stereotype to look at other applications of blockchain apart from cryptocurrency. In this context, one could use this analogy: *“Blockchain is to Bitcoin, what the internet is to email. A big electronic system, on top of which you can build applications. Currency is just one.”*⁴

Blockchain is a technology that has multiple uses and hence it has the potential to be used in a wide range of industries. The technology may have an impact on various sectors, including data storage, energy, logistics and transport, aviation, regulatory, legal services, etc.

Discussed below are a few interesting applications of blockchain technology.

SESO GLOBAL⁵

Problem Statement: Africa comprises roughly 20% of the world’s land based assets, and only 10% of its surface area is formally documented. This problem stems from incomplete and often conflicting legacy systems, which are often hampered by lack of transparency and access to reliable land market data.

Blockchain Solution: Seso Global is a British company that seeks to address the trust deficit between the governments of Nigeria, Ghana, and South Africa and their respective populations, concerning land tenure with an innovative blockchain based solution. Seso Global is a self-described ‘one-stop shop property portal’, powered by blockchain technology. Blockchain acts as a tool to timestamp data and ensure immutability and to store information only after the verification process is complete. In this sense, blockchain aids in the creation of what may eventually become an entirely digitized property registry.

BUILDING BLOCKS – A WORLD FOOD PROGRAMME (WFP) BLOCKCHAIN SYSTEM FOR CASH TRANSFERS⁶

Problem Statement: Cash based approaches for the provision of humanitarian assistance allows rapid response at scale, directly providing beneficiaries with the financial means to enable them to buy relief materials. Cash based humanitarian assistance often takes the form of cash transfers and thus requires the intervention of a third party, such as a financial intermediary. The process of transferring money to millions of beneficiary accounts through a financial intermediary is costly and inefficient.

Blockchain Solution: The World Food Programme (WFP) was the first leading humanitarian organization to use a blockchain based cash transfer system, with the aim of making humanitarian assistance more efficient, effective and secure. WFP’s Building Blocks uses blockchain technology as the back-end infrastructure to create virtual accounts for beneficiaries on the blockchain and upload their respective entitlements. Once a virtual account has been created, a beneficiary is able to go to a registered supermarket and purchase goods

⁴ Tapscott, D. and A. Tapscott (2016), *Blockchain Revolution: How the Technology Behind Bitcoin is Changing Money, Business and the World*.

⁵ Boiardi, P. and Stout, E. (2021) “To what extent can blockchain help development co-operation actors meet the 2030 Agenda?” OECD Development Co-operation Working Papers, No 95, OECD Publishing, Paris.

⁶ Boiardi, P. and Stout, E. (2021) “To what extent can blockchain help development co-operation actors meet the 2030 Agenda?” OECD Development Co-operation Working Papers, No 95, OECD Publishing, Paris.

by performing an iris scan (in the case of Jordan project – where more than 0.65 Mil Syrian refugees were registered) to verify and complete the transaction. This process, though deceptively simple, is built on a complex web of blockchain technology.

DOCUMENTATION FOR REFUGEES

Problem Statement: One of the groups most likely to be affected by lack of formal documentation is refugees. As an illustration, the Norwegian Refugee Council notes that 70% of Syrian refugees lacked basic IDs.

Blockchain Solution: Similar to WFP, Finland has piloted the use of pre-authorized biometric digital cards for refugees that are linked to the blockchain, thus linking financial resources to identification.

USE BEYOND CRYPTOCURRENCY – THE INDIAN SCENARIO

Case Studies: Illustrations of India’s adoption to blockchain technology over the past few years.

S.No	Use Case	Adopted By	Description
1.	Use of blockchain for secured online payments.	National Payments Corporation of India (NPCI) has developed a platform called Vajra . ⁷	<ul style="list-style-type: none"> ▪ Vajra is based on distributed ledger technology and is designed to automate payment clearing and settlement processes for NPCI products such as initiating secured UPI payments from Bank A to Bank B, validating transactions through smart contracts, etc. ▪ This platform uses cryptography security to secure stored data. The stored data is accessible only to authorized entities.
2.	Use of blockchain to curb unsolicited commercial communication.	Telecom Regulatory Authority of India (TRAI) has developed an ecosystem based on blockchain ⁸ .	<ul style="list-style-type: none"> ▪ The Telecom Commercial Communication Customer Preference Regulation, 2018 (“TCCPR”), issued by the TRAI has mandated registration of all commercial promoters and Telemarketers on the DLT platform and seek customer consent for receiving various kinds of promotional messages at a time and day of their choice.
3.	Use of blockchain to eliminate fake distribution of drugs.	Apollo Hospitals, in collaboration with Oracle, Strides Pharma and NITI Aayog, has built a real drug supply-chain using blockchain DLT and Internet of Things (IoT) software. ⁹	<ul style="list-style-type: none"> ▪ This software helps to permanently register a drug’s record in the manufacturer’s drug supply chain (serial number, labelling, scanning), leaving no scope for record tampering. It also records the drug’s movement – from manufacturer to stockists, to a hospital/ pharmacy /consumer. In case of a fake drug, the software will detect an irregularity. Additionally, critical

⁷ “NPCI launches blockchain based Vajra platform to secure payments.” <https://www.blockchain-council.org/blockchain/national-payment-corporation-of-india-launches-vajra-the-blockchain-based-platform/>

⁸ Press Information Bureau, Ministry of Communications, “Curbing Unsolicited Commercial Communication through effective implementation of Telecom Commercial Communications Customer Preference Regulations 2018” dated 28 November 2022, <https://pib.gov.in/PressReleaselframePage.aspx?PRID=1879565>

⁹ Press Information Bureau, NITI Aayog, “NITI Aayog and Oracle sign a Statement of Intent to pilot drug supply-chain using blockchain”, dated 28th September, 2018, <https://pib.gov.in/PressReleaselframePage.aspx?PRID=1547848>

			information such as chemical ingredients of the drug or maintenance of temperature control in case of life saving drugs or vaccines, can also be tracked.
4.	Use of blockchain in the Universal Travel Pass during COVID-19.	The Department of Disaster Management, Relief and Rehabilitation of Maharashtra had implemented a Universal Pass during the COVID-19 pandemic, in which the digital identity of the individual was stored on the blockchain network.	<ul style="list-style-type: none"> During COVID-19, people who were vaccinated, were issued a Universal Travel Pass by the Government of Maharashtra to enable them to travel within the State. This Universal Pass was seamlessly integrated with the e-Ticketing systems of the Indian Railways' UTS application and BEST to enable COVID negative people to obtain such travel tickets. Further, the QR code on the pass was recorded on the blockchain.
5.	Use of blockchain to store land records.	The State of Andhra Pradesh was the first state to adopt blockchain technology to store all the relevant land records online.	<ul style="list-style-type: none"> As of today, there are numerous instances where land records are tampered easily, which ultimately lead to land disputes. However, use of blockchain technology has ensured that such land records are protected with passwords on the secured network and any attempt to tamper with such records are penalized.

BLOCKCHAIN TECHNOLOGY - KEY RISKS

Before discussing the potential risks, it is important to understand that the extent of the risks depends on the openness of the blockchain network. Private networks are adopted by parties with known identities who can exercise a certain level of control over the network. On the other hand, public, permissionless blockchains open to anybody will possess several issues (highlighted below).

- **Identification of legal persons:** In the context of blockchain technology, the decentralization and anonymity features complicate the identification of legal persons or entities, making it challenging to enforce rules on blockchain networks. OECD's Blockchain forum discussions outlined a number of current or potential practices to drive accountability for the activities on decentralized networks, including by assigning responsibilities and accountability to: (i) **users** of blockchain platforms (ii) **third party service providers** within a blockchain ecosystem for example, digital asset exchanges (iii) **miners, mining pools and/or network nodes** could be subject to laws in the jurisdictions they operate to take certain actions on the network (iv) **developers** or enterprises behind public blockchains (v) **the code itself**, which is at the core of blockchain's functioning. A code-based approach to regulation could help ensure regulatory compliance of a blockchain platform. Regulators could require integration of specific features into governance protocols and smart contracts. Integrating regulatory compliance into the fabric of a blockchain could also facilitate auditing, reporting and disclosures, and contribute to oversight of the network's activities.
- **Cross Sectoral Use:** Blockchain's use is cross-sectoral. The use cases of blockchain have highlighted the interconnectedness of different policy and legal disciplines, such as competition, illicit finance, corporate governance, privacy and customs rules among many others. Accordingly, when transactions on blockchains are executed, no one entity/organization/industry may be responsible for any illicit activities and thus policies and governments may struggle to identify the responsible.
- **Transnational Use:** Blockchain networks are often transnational in nature, particularly open, public networks. The Ethereum network, for example, has nodes hosted in over 50 countries, running decentralized applications available to almost anyone in the world. This decentralization can create jurisdictional issues in the application of legal policies and the ability to enforce them in the relevant jurisdictions.
- **Issues with Immutability:** Due to the immutability of the data on the blockchain, it is highly problematic or even impossible to correct any inaccuracies. This feature may also have implications under data privacy laws. For instance, the EU General Data Protection Regulation (GDPR) provides the right to have personal information removed from online environment, however enforcement of such a right to be forgotten would be difficult in a blockchain ecosystem.

GOVERNANCE AND REGULATION IN AN INCREASINGLY DECENTRALIZED WORLD

BLOCKCHAIN – PRESENT REGULATORY LANDSCAPE

Questions about applying legal frameworks to blockchain technology arise essentially and primarily due to the decentralized nature of public blockchain networks, which can create situations not anticipated by current laws or beyond the reach of enforcement authorities. This could also be challenging for applications that are cross border in nature.

However there have been first movers in this area. Given below are instances of national policies and guidelines implemented by various countries and international organizations adopting blockchain technology [apart from regulations specifically governing cryptocurrency, which is not discussed in this paper]:

S.No	Jurisdiction	Year	Description
1.	European Union	2023	<ul style="list-style-type: none"> ▪ EU has witnessed significant regulatory developments in the past two years governing areas of recent technologies. Few examples include (i) agreement on the AI Act (ii) the Data Governance Act which is applicable since September 2023 (iii) the Digital Services Act that will apply to all platforms from 17 February 2024 and (iv) the Data Act of 13 December 2023. Moreover, EU regulatory instruments specific to Distributed Ledger Technology (DLT) have been recently adopted: (i) the DLT Pilot Regulation which became applicable on 23 March 2023 and (ii) the MiCA Regulation of 31 May 2023 that will become fully applicable on 30 December 2024. ▪ Further, in February, 2023, the European Commission introduced, the 'European Blockchain Sandbox' which is a regulatory sandbox which aims to establish a pan European framework for regulatory dialogue. The Sandbox brings together national and EU regulators and authorities with providers of innovative blockchain/DLT applications in both the private and public sector to identify possible issues and solutions from a legal and regulatory perspective in a safe and confidential environment. The regulatory dialogues will allow innovators to better understand relevant laws and regulations. The exchanges will allow regulators and authorities to enhance their knowledge of cutting-edge technologies involving blockchain and distributed ledger technologies, and to exchange views and experiences with

			other regulators and authorities. The Sandbox runs from 2023 to 2026 and will annually support 20 projects ¹⁰ .
2.	DIFC in Dubai	2024	<ul style="list-style-type: none"> Dubai International Financial Centre (DIFC) has enacted the new Digital Assets Law.¹¹ The law characterizes Digital Assets as “an intangible property” which “is neither a thing in possession nor a thing in action” and seeks to regulate the ownership, control and other aspects of Digital Assets. The said law is applicable only to entities operating from DIFC (a SEZ in Dubai). The approach under the said law may be viewed as seeking to give legislative sanctity to transactions involving Digital Assets.
3.	Abu Dhabi Global Market in Abu Dhabi	2023	<ul style="list-style-type: none"> The Registration Authority (RA) of Abu Dhabi Global Market (ADGM) officially released the Distributed Ledger Technology (DLT) Foundations Regulations 2023, which provides for the establishment and registration of DLT foundations that use, deploy, develop, facilitate or support DLT or issue tokens in the Abu Dhabi Global Market.¹²
4.	Nigeria, Africa	2023	<ul style="list-style-type: none"> As the leading digital economy in Africa, the Federal Ministry of Communications and Digital Economy of Nigeria has introduced the National Blockchain Policy in May 2023.¹³ The policy is a guiding tool for Government organizations, businesses, and other stakeholders which encourages the adoption, innovation, talent development, and responsible use of Blockchain Technology.
5.	International Organisation for Standardization (ISO)	2022	<ul style="list-style-type: none"> International Organisation for Standardization (ISO) has convened a Technical Committee on Standardisation of blockchain technologies and distributed ledger technologies – ISO/TC 307 to standardize the blockchain concept and the mechanism to support it and has issued/ in the process of issuing several standards on blockchain and DLTs¹⁴.
6.	State of Illinois (USA)	2020	<ul style="list-style-type: none"> State of Illinois has enforced the Blockchain Technology Act, specifying the permitted use of Blockchain for conducting business and prohibiting local government restrictions on Blockchain or smart contracts. It clarifies on the legal effect

¹⁰ European Commission, European Blockchain Sandbox Best Practices Report, Published on 8th February 2024, <https://digital-strategy.ec.europa.eu/en/library/european-blockchain-sandbox-best-practices-report>.

¹¹ The New Digital Assets Law w.e.f. 8th March 2024 can be accessed here: <https://www.difc.ae/business/laws-and-regulations/legal-database/difc-laws/digital-assets-law-difc-law-no-2-of-2024>.

¹² Abu Dhabi Global Market, Date of Publication: 1st November 2023, <https://en.adgm.thomsonreuters.com/rulebook/1-november-distributed-ledger-technology-foundations>.

¹³ National Blockchain Policy for Nigeria, <https://nitda.gov.ng/wp-content/uploads/2023/05/National-Blockchain-Policy.pdf>.

¹⁴ International Organization for Standardization, <https://www.iso.org/committee/6266604/x/catalogue/>

			and enforceability of smart contracts and other records created on a blockchain. ¹⁵ .
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DIFFERENT REGULATORY APPROACHES

OECD's Blockchain Recommendations for Policymakers

According to the *'Recommendations of the Council on Blockchain and Other Distributed Ledger Technologies (Adopted by the Council at Ministerial level on 10 June 2022)*¹⁶, policymakers are recommended: (i) to promote the ethical and responsible use of blockchain technology by enforcing mechanisms that ensure mandatory compliance with relevant policies (ii) to enact policies that are transparent, clearly defined, and coherent with existing legal and regulatory obligations (iii) to allow blockchain platforms to be integrated with non-blockchain systems (iv) to facilitate smooth sharing of data and enhance the protection and control of personal data (v) to foster and pay due regard to the use and development of blockchain-related skills and (vi) to support sustainable use of blockchain and mitigate any potential environmental impact.

In 2023, the OECD Blockchain Policy Forum discussed AI and blockchain innovation in Africa. Latest international analysis and key policy developments were discussed to support domestic and regional responses that guide responsible innovation within these two technologies while mitigating key risks.

APPROACH UNDER SPECIFIC BLOCKCHAIN AND DLT REGULATIONS (ADOPTED BY CERTAIN JURISDICTIONS)

Adopting the 'Guidance and Sandboxing' Approach

Many jurisdictions have adopted providing regulatory guidance on how new technologies fit into existing legal frameworks and to provide sandboxing opportunities for new technologies. Sandboxing refers to a legally safe environment (often through some regulatory exemptions) for blockchain developers to test their products. The European Blockchain Sandbox¹⁷ was launched by the European Commission in 2023 to provide a confidential platform for innovative blockchain use cases involving Distributed Ledger Technologies. It gives projects the chance to be at the forefront of the blockchain dialogue and to engage in discussions with regulators and authorities at both national and EU level. It aims to help projects understand novel regulation issues, increase legal certainty, and contribute to the development of best practices. This appears to be a progressive and empirical based approach to regulating newer technologies in general.

Mandatory requirement to obtain Registrations and Permits

One of the key issues within blockchain technology today is that it is difficult to identify persons behind the deployment of such technology. Accordingly, the need to register such entities/persons with a regulator or even a self-regulatory body becomes imperative. In fact, the Board of Directors of the Abu Dhabi Global Market (ADGM) have introduced the Distributed Ledger Technology Foundations Regulations 2023¹⁸ enacted on 2nd October 2023. The enactment specifically requires the entity which uses, deploys, facilitates or supports Distributed Ledger Technology (DLT) or issues tokens to be registered as a legal entity under the

¹⁵ FINANCIAL REGULATION, (205 ILCS 730/) Blockchain Technology Act, <https://www.ilga.gov/legislation/ilcs/ilcs3.asp?ActID=4030&ChapterID=20>.

¹⁶ <https://www.oecd.org/mcm/Recommendation-on-Blockchain-and-other-Distributed-Ledger-Technologies.pdf>

¹⁷ *European Blockchain Sandbox Best Practices Report | Shaping Europe's digital future (europa.eu)*

¹⁸ [Microsoft Word - \(1\) DLT Foundations Regulations 2023 \(thomsonreuters.com\)](https://www.adgm.com/legislation/microsoft-word-(1)-dlt-foundations-regulations-2023)

said Regulations. In terms of the said Regulations, the registration is to be undertaken with the local registrar of companies in Abu Dhabi. Further, the said regulations prescribe that a DLT registered entity must at all times have a registered office in the ADGM to which all communications and notices may be addressed. Given the complex nature of the technology at its backend, including the ability of the developers to maneuver the programming of the network as per their needs, it is critical that the information about the legal entity and all relevant details are taken on record by the relevant regulator.

Interplay with Domestic Regulations

Entities governed by Blockchain specific regulations may continue to be governed by other domestic regulations within a jurisdiction as well. For e.g., in terms of the Abu Dhabi – DLT Regulations 2023, the license required to be obtained by a DLT Foundation is governed by the Commercial Licensing Regulations, 2015 of Abu Dhabi. The Regulations also specify that a DLT Foundation may not be formed for unlawful purposes and contrary to any public policy of ADGM or the United Arab Emirates or prohibited under Article 17 of the ADGM Founding Law.

Other legal use cases of blockchain within a legislative framework

A smart contract, record, or signature on a blockchain may be used to enforce a legal contract. The Blockchain Technology Act enacted by the State of Illinois stipulates *“If a law requires a record to be in writing, submission of a blockchain which electronically contains the record satisfies the law”*. Apart from this, the enactment states that, blockchain enabled smart contracts, record or signature may be used as evidence to verify the recordings in any legal proceeding. Blockchain can also be used in cases where a law requires a record to be in writing.

INDIA'S REGULATORY APPROACH

In India, a separate taxation regime has been laid down for Virtual Digital Assets, with an intention to bring into the fold of taxation cryptocurrencies and the like. Further, RBI has time and again voiced its concerns against cryptocurrencies. Apart from these, there are no specific regulations governing blockchain in general. It is noteworthy that recently (31 May 2024) the Reserve Bank of India has released the final '*Framework for Recognising Self-Regulatory Organisation(s) for FinTech Sector' (SRO-FT framework)*' which seeks to encourage self-regulation in the FinTech sector. While the said framework may possibly cover entities providing technological solutions for delivery of financial products/services, it may not be applicable to a wide variety of blockchain solutions offered in the sectors other than FinTech. It is interesting to note that earlier this year the Indian Government dropped the idea of an SRO for the online gaming sector and decided that the Government itself will act as a regulator for the sector. Given this varied approach in regulating different technology driven sectors, one will have to wait and see the direction taken by the Indian Government to regulate blockchains in general.

CONCLUSION

Blockchain is an emerging technology which poses a number of unique questions to existing policy, legal, and regulatory frameworks. New applications under blockchain have often outpaced the ability for relevant regulation to keep up.

The varied regulatory approaches discussed above clearly indicate that blockchain's decentralized nature does not make it ungovernable. There are many participants in the ecosystems around public blockchain networks, including legitimate businesses such as exchanges, equity providers and developers, while in private networks the participants are generally easily identifiable. These participants should be identified and obligated to function consistent with national laws, and international rules and norms.

India is yet to deliberate on a holistic regulation governing the blockchain ecosystem. One hopes that the ambivalence or hostility towards cryptocurrencies should not prejudice the minds of the policy makers or act as a barrier in the development of proactive and coherent regulatory landscape governing the multi-faceted technology of blockchain.

We hope you have found this information useful. For any queries/clarifications please write to us at insights@elp-in.com or write to our authors:

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