MEGHNA BAL • SHWETA VENKATESAN • VARUN RAMDAS

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Observer Research Foundation
20 Rouse Avenue, Institutional Area
New Delhi 110002
India
contactus@orfonline.org
www.orfonline.org

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Contents

Executive Summary 8

Crypto Assets: Technology and Market Overview 10

1. What is a crypto asset? 11
2. What are the different types of crypto assets? 11
3. What are stablecoins? 11
4. What is Blockchain Technology? 11
5. Does Blockchain Technology have a value proposition separate from crypto assets? 13
6. What is the advantage of crypto assets? 14
7. Who are the main actors in the crypto-asset market? 14
8. Who are the participants in a crypto-asset transaction? 15
9. How is a crypto transaction carried out? 16

Technology and Market Overview: Key Takeaways 17

Why Crypto Assets Should be Regulated, Not Banned 18

1. Crypto assets are expected to form the basis of the future form of the internet 19
2. India is one of the fastest growing crypto markets in the world 19
3. Private crypto markets will help guide the hands of decision-makers on how to reckon with digitised financial markets 19
4. A flourishing domestic crypto market gives India leverage in global conversations around crypto assets 20

5 Bans often lead to unintended consequences 20

6. Ban on crypto assets is unconstitutional 21

7. Fiscal stability and monetary policy 21

8. Money Laundering and Financial Crime 22

9. Investor Protection 24

10. Regulatory Certainty for Industry Stakeholders 25

11. Tax Evasion 25

Why Crypto Should be Regulated, Not Banned: Key Takeaways 26

How Other Jurisdictions are Approaching Crypto Asset Regulation 28

1. Accommodating crypto assets within existing legislation 29

1.1 European Union 29

1.2 United Kingdom 30

1.3 United States 31

2. Innovation-Friendly 34

2.1 Japan 34

2.2 United States 34

3. Crypto-Specific 35

3.1 Definition 35

3.2 Licensing/Registration 37

3.3 Anti-Money Laundering 40

3.4 Taxation 41

3.5 Investor Protection/Consumer Protection/Regulation of Promotion of Crypto Assets 43

4. Prohibitive Regulations 44

4.1 United Kingdom 44

4.2 China 44

4.3 Iran 45

Takeaways from the Global Experience 46

Regulatory Pathways for Crypto Assets in India under Existing Regulation **47**

Summary Box 1 - Crypto Assets as Securities in India 48

Regulatory Overview: Crypto as a Security 49

Summary Box 2 - Crypto Assets as Commodities in India 53

Regulatory Overview: Crypto as a Commodity 54

Summary Box 3 - Crypto Assets as Capital Assets in India 59

Regulatory Scenario 3: Crypto as a Capital Asset 60

Takeaway: Accommodating Crypto assets under existing asset classes is problematic 67

Mapping the Institutional Landscape for Crypto Asset Oversight under Existing Indian Law 69

1. Institutions that Would Oversee Crypto if Classified as a Commodity/Security 70

1.1 KYC and Transparency 70

1.2 Foreign Exchange Management Act, 1999 (FEMA) 71

1.3 Anti-Money Laundering (AML) and Counter-Terror Financing (CTF) 72

1.4 Investor Protection 74

2. Institutions that Would Oversee Crypto if Classified as an Asset 76

2.1 Registration 76

2.2 Know Your Customer and Know Your Business 76

2.3 AML/CFT 76

2.4 FDI and FEMA 77

2.5 Consumer Protection 77

2.6 Taxation 78

Takeaway from the Analysis of the Institutional Landscape for Crypto Asset Oversight under Existing Indian Law 78

Recommendations 79

1. Definition 81

2. Regulatory Approach 81

3. KYC/Anti-Money Laundering 82

4. Investor Protection 83

5. Competitive Fairness 84

5.1 Interoperable Custodial Services and Exchanges for Crypto Assets 84

6. Safe Harbour for Crypto Asset Service Providers 84

7. Tax 85

8. Regulation of Promotion of Crypto Assets 85

9. Stable coins and FEMA 85

10. Security Standards for Exchanges 86

11. Work with industry to develop technological tools for compliance with regulatory norms 86

Summary of Recommendations 87

Executive Summary

THE INDIAN CRYPTO asset industry has witnessed exponential growth over the last five years and today, the country reportedly has 15 million crypto asset holders that have put in INR 6.6 billion in these crypto asset holdings. India now has two crypto unicorns and over 350 crypto startups in what is clearly a flourishing industry.

This report seeks to bring clarity around crypto assets as a technology and make recommendations for the regulation of the Indian crypto asset market. Like all financial

assets, crypto assets pose certain policy risks that must be addressed through a coherent framework that balances the public interest with the need to encourage innovation. Towards this end, the paper recommends the induction of a safe harbour for crypto assets, similar to the one inducted for internet intermediaries in the Information Technology Act, 2000 and the Copyright Act, 1957. The size of first-generation internet technology companies today is testament to the enabling power of safe harbours as a tool to promote innovation. If the crypto asset space presents the future of the internet, as many experts propound, it is imperative that the crypto industry be afforded the same legal succour that allowed big technology companies to reach where they are today.

In an effort to establish regulatory recommendations for India, the authors have carried out an exhaustive study of international regulatory approaches and bucketed them into four categories. The first approach involves accommodating crypto assets into existing frameworks as they stand. The problem with this approach is that several crypto assets do not fall neatly into the definition of existing financial instruments and therefore fall outside the regulatory ambit. The second approach is innovation-friendly steps taken by some regulators to encourage start-ups to set up base within their jurisdictions and help the local crypto industry grow. The third is crypto-specific legislation or amendments that address the concerns around licensing and registration, definition, tax, money laundering and terror financing, and investor protection. This approach is comprehensive and seems the most practical route and is being adopted by most advanced financial jurisdictions.

The analysis of possible regulatory pathways under existing regulation in India reveals a similar problem. It is likely that most prominent crypto assets such as Bitcoin would not be suitably accommodated as securities, or commodities. While crypto assets may be recognised as capital assets, the frameworks that currently regulate these assets in India would necessarily leave gaps in investor protection and service provider registration.

The analysis of the way crypto markets work, reveals that the industry should be regulated through exchanges. These entities account for the bulk of the volume of activity in most major crypto networks and provide point of entry for most retail and institutional investors into the crypto market. As such, they should serve as the designates for regulation around the various policy risks presented by crypto assets.

Crypto Assets: Technology and Market Overview

THIS SECTION FAMILIARISES the reader with the basics of crypto assets and crypto-asset markets.

1. What is a crypto asset?

A crypto asset is a digital asset that relies on decentralised ledger technologies such as blockchain technology to secure, validate, and record transactions. A crypto asset can operate as a unit of account, medium of exchange, or a store of value.

2. What are the different types of crypto assets?

There are two broad types of crypto assets. Crypto assets such as Bitcoin and Ether which are native to their own blockchain network are known as coins. Coins are used as 'fuel' to carry out transactions on blockchain networks. For instance, to create and upload a smart contract on the Ethereum blockchain, a user will have to pay a small fraction of Ether to cover the transaction costs. Crypto assets such as stablecoins and the digital art non-fungible token (NFT) created by the artist Beeple auctioned at Christie's for USD 63 million are known as tokens. Tokens are crypto assets that do not have their own native blockchain network. Rather, they are used as stores of value for projects that are built on top of a blockchain.

3. What are stablecoins?

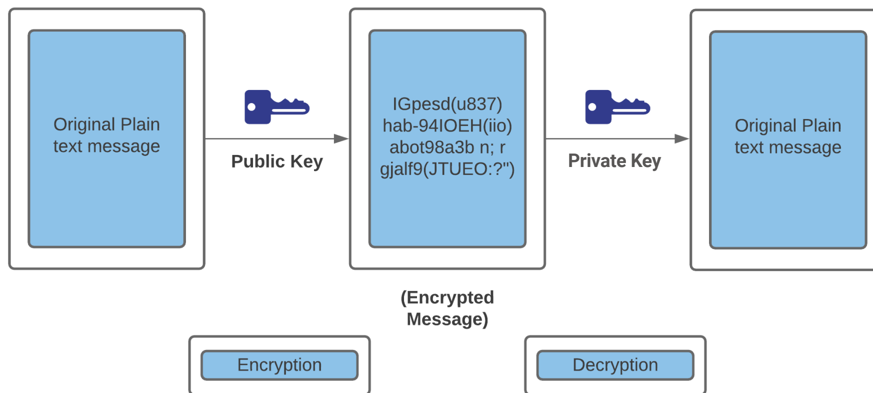
Stablecoins are crypto assets that are pegged to an underlying asset such as a fiat currency to maintain stability in value. Examples of stablecoins include USD Coin, Tether and Dai, which are pegged to the value of the US dollar.

4. What is Blockchain Technology?

Blockchains are a decentralised ledger technology that enable transaction and settlement between two parties, typically without the involvement of a centralised intermediary. Blockchains are not a new technology.[1] Rather they are a new way of combining extant technologies:[2]

- **Asymmetric Key Encryption:** Enables the creation of authenticable accounts on the blockchain network through digital signatures. An encrypted message sent through a public key can only be decrypted by a person with a corresponding private key.

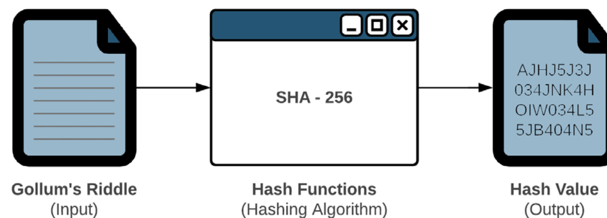
Figure 1: How Asymmetric Key Encryption Works



Source: Kelley Robinson, "Twilio," Twilio (blog) (Twilio, September 21, 2021), https://www.twilio.com/blog/what-is-public-key-cryptography.

- **Hashing:** An irreversible computing function that converts any input into a definite output of letters and numbers known as a hash value. Blockchains rely on hashing to maintain block integrity. Change even one character in the input (transaction block) and the output is completely different.

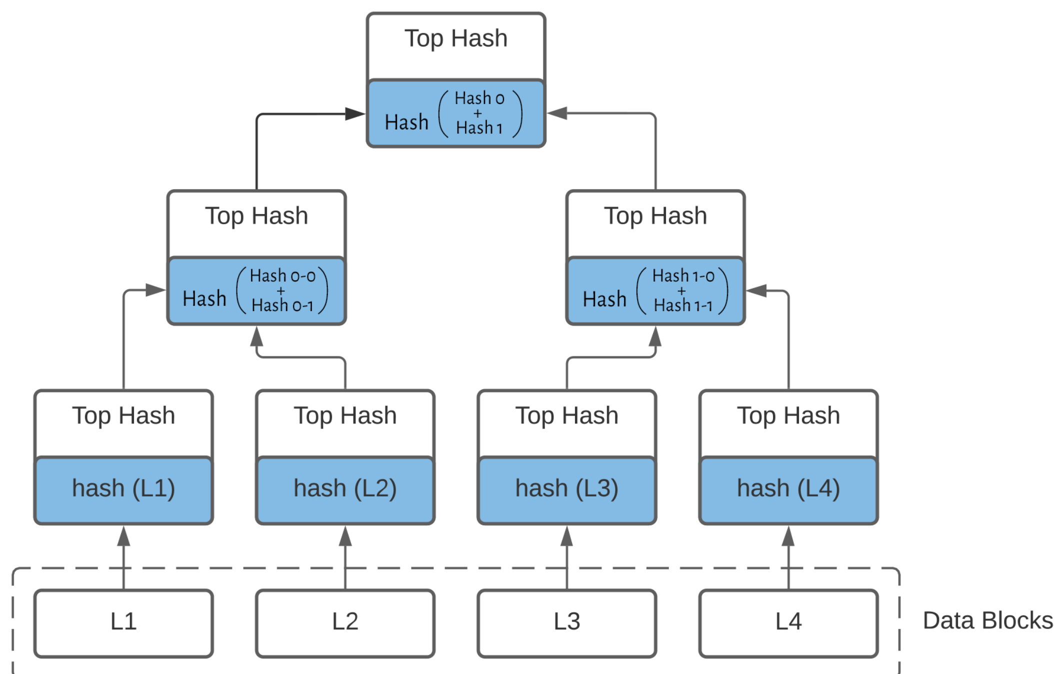
Figure 2: How a Hash Function Operates



Source: Kelley Robinson, "Twilio," Twilio (blog) (Twilio, September 21, 2021), https://www.twilio.com/blog/what-is-public-key-cryptography.

- **Merkle Trees:** Merkle trees create a chain of transactions that is verifiable and hard to falsify. A merkle tree is an efficient way to validate large volume of data. It is a data structure that comprises blocks of data with corresponding hash values. It starts with a root block which is hashed and each subsequent block of data takes the hash value of the previous block as an input in the creation of its own hash.

Figure 3: A Merkle Tree



Source: "Merkle Tree," Wikipedia (Wikimedia Foundation, November 20, 2021), https://en.wikipedia.org/wiki/Merkle_tree.

- **Peer-to-Peer Network:** Makes it difficult for network participants to collude as they do not know one another (anyone with the right software can become a node on the network) and provides for data redundancy (all nodes have the entire record of transactions so if one node crashes, all the data is not lost).

- **Protocol:** Set of rules that determine elasticity of supply and align the interests of network participants to ensure they work to sustain the integrity of the network. The protocol is what makes all the different sub-components of blockchains work together. For example, the Bitcoin protocol includes a consensus algorithm that incentivises miners to use computing force to compete to upload transactions. If a miner successfully uploads a transaction, it receives Bitcoin (the native crypto asset) as a reward. The transaction is uploaded to the network so that all participants can verify it (through its hash value).

5. Does Blockchain Technology have a value proposition separate from crypto assets?

The short answer is no. Early narratives about crypto assets and blockchain segregated the two constructs—Bitcoin was the application but the real value lay in blockchain technology. Such narratives are, however, mistaken. Without crypto assets, blockchain technology is

merely a shared database that cannot record transactions. Crypto assets are the mechanism for recording and securing transactions and transmitting value on the blockchain network. Without crypto assets it is impossible to create smart contracts, which form the basis of decentralised applications, or maintain a chain of provenance for digital assets.

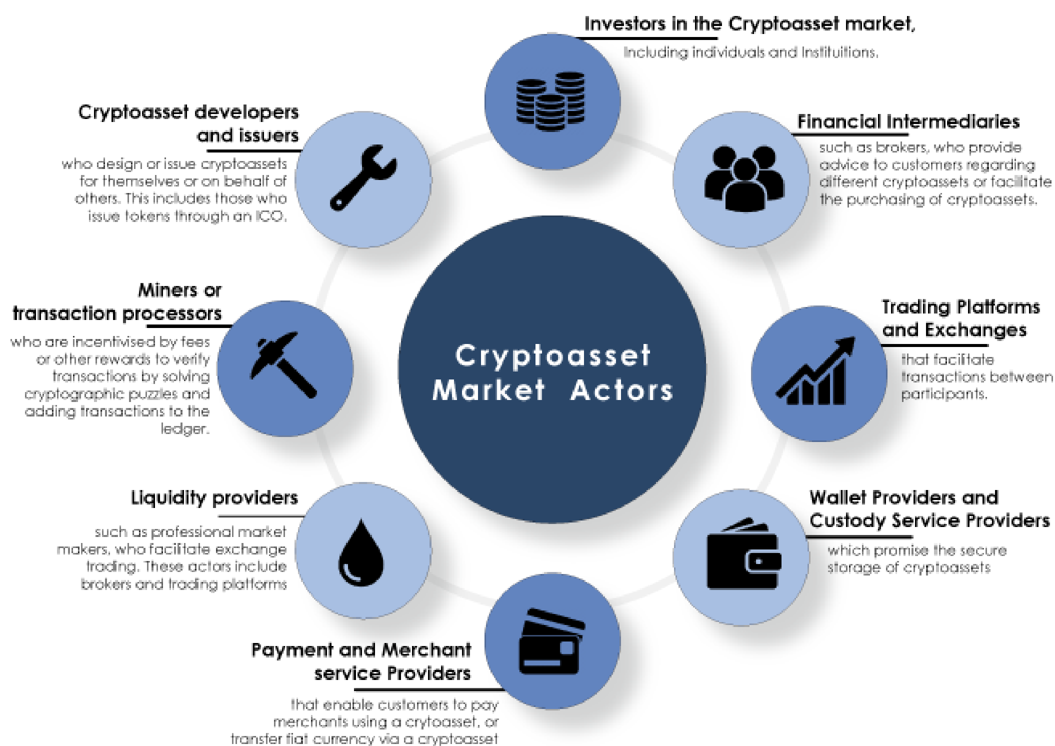
6. What is the advantage of crypto assets?[3]

Crypto assets resolve the double-spending problem with unencrypted digital assets such digital money. It is easy to falsify transactions or records related to digital money because it is easily replicable and there is no way to chart out its history of origin. With crypto assets, however, the existence of a distributed ledger that is updated and verified through network-wide consensus solves this problem. The provenance of each crypto asset can be tracked by all. Thus, each crypto asset has the attributes of physical property with an immutable chain of title. It is possessable, scarce, and has a clear record of prior ownership.

7. Who are the main actors in the crypto-asset market?

The main actors in the crypto-asset market are represented in Figure 4.

Figure 4: Stakeholders in the Crypto Asset Market



Source: UK Government, Cryptoassets Taskforce Report[4]

8. Who are the participants in a crypto-asset transaction?

The following are the main participants involved in any transaction of crypto-assets:

- **Users:** Users could be natural persons or legal entities that intend to use crypto-assets for varying purposes – among other things, this could include peer-to-peer payments, purchase or sale of goods and services, or investment.[5]

- **Miners:** Transactions on a blockchain network are validated by miners through the proof-of-work consensus mechanism.[6] Miners use complex software and vast amounts of computing power to do so and are often compensated for their efforts through the decentralised issuance of crypto-assets.[7]

- **Crypto-asset exchanges:** Crypto-asset exchanges enable users to exchange their crypto-assets for fiat currency or other crypto-assets and provide these services for a fee. They can be affiliated to administrators (i.e., entities issuing crypto-assets), independent, or act as third-party providers. Examples of such exchanges include Bitfinex and Kraken.[8]

- **Trading platforms:** Apart from crypto-asset exchanges, trading platforms may also facilitate transactions. They act as marketplaces that connect users with one another. However, unlike exchanges, they do not buy or sell crypto assets themselves but only facilitate these transactions.[9]

- **Wallet providers:** Wallet providers offer wallets to users that help in the holding, storage and transfer of crypto-assets. Wallets hold the private key of a user – which allows them to transact crypto-assets using the public key accessible to users on that blockchain network.

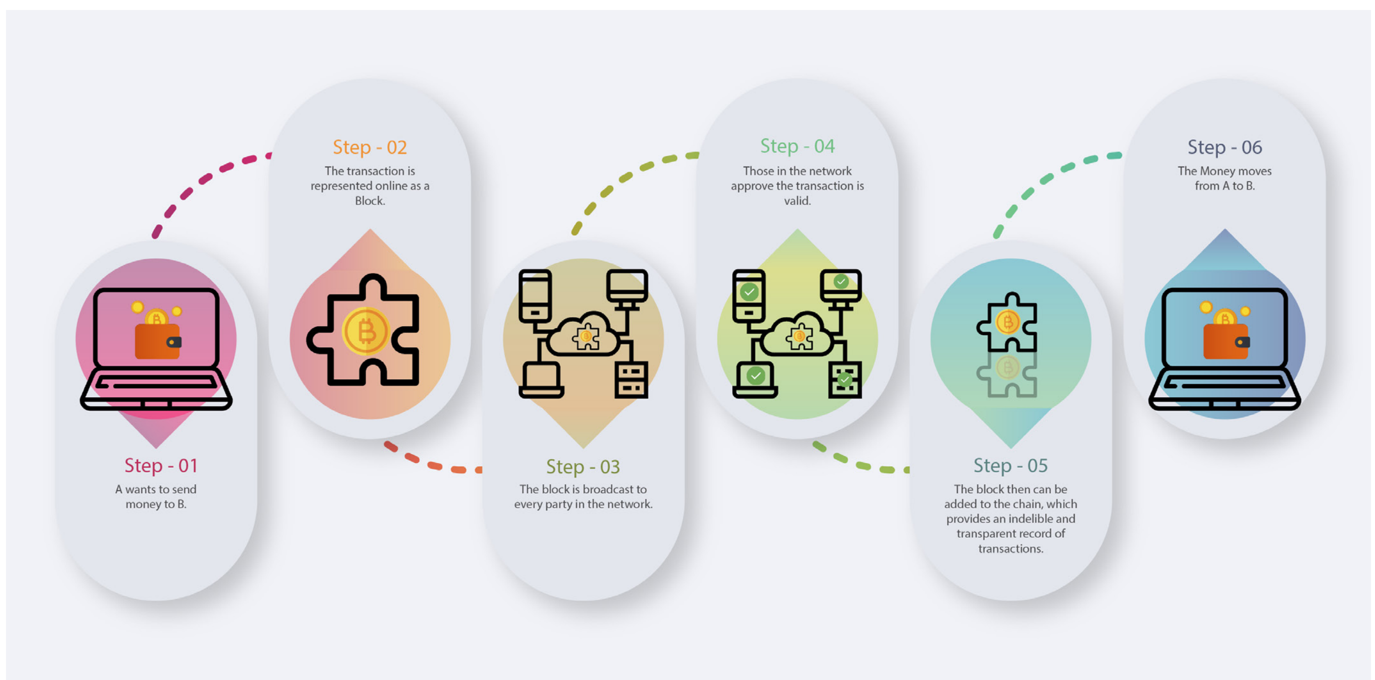
- In addition to maintaining a user's transaction history in a manner that is readable, wallet providers also ensure the security of transactions.[10] There are several kinds of wallet providers, among them hardware and software wallet providers.[11] There are also different ways to store wallets – online ("hot storage"), or offline ("cold storage").[12] Sometimes, exchanges could double up as custodian wallet providers by safeguarding a user's private cryptographic key.

9. How is a crypto transaction carried out?

A good way to understand how a crypto-asset transaction might be carried out is to consider a hypothetical situation, in which A wants to transfer a certain number of Bitcoins (BTC) to B. For this transaction to be carried out, both A and B must first have a wallet linked to Bitcoin.

Once this is done, A will need to enter the amount that they intend to send to B, as well as the latter's public address. To demonstrate that the instruction is coming from them, they will be required to enter their private key as well. Once this is done, this transaction will be grouped into a "block" on the blockchain network (which contains information about various groups of transactions). For the purposes of this example, after this transaction is proposed, miners compete to verify the transaction by decrypting information from the block. For a transaction to be authenticated, it must be verified by a majority of nodes on the network – who will rely on A's public key to verify their signature. This process ultimately reveals information about the users who transacted, the amount concerned and the time and date of the transaction as well.

Figure 5: How a Crypto Asset Transaction Works[13]



Technology and Market Overview: Key Takeaways

- Crypto assets are a type of digital asset that rely on decentralised ledger technologies such as blockchain technology to secure, validate, and record transactions.

- Blockchain technology brings together decentralised network of computers, different cryptographic techniques, and a computing protocol to enable secure online transactions that are immutable and verifiable and not reliant on a centralised intermediary.

- There are two types of crypto assets – coins and tokens. Coins have their own native blockchain network while tokens are part of projects that are built on top of existing blockchains.

- The advantage of crypto assets is that they imbue digital artefacts with the qualities of physical property that give it value such as scarcity, immutable provenance, and ownability.

- Crypto assets are a fundamental component of the value proposition of blockchain technology. Without crypto-assets, blockchains would be reduced to shareable databases that are unable to record transactions.

Why Crypto Assets Should Be Regulated, Not Banned

THE FOLLOWING PARAGRAPHS explain the key reasons why the crypto asset industry has come under increased scrutiny in India over the last few years.

1. Crypto assets are expected to form the basis of the future form of the internet.

The internet is expected to undergo a transformation as the crypto asset industry matures. The original form of the internet, dubbed "Web 1.0", essentially saw users operate as consumers of content. According to O'Reilly and Battelle (2009), in Web 2.0, (the phase the internet is currently in), software applications are built over-the-top of the web, "as opposed to on top of the desktop" and users are both creators and consumers of content.[14] Web 2.0 facilitates the concentration of data, and consequently wealth, into the hands of a few companies, without giving users a sense of privacy or transparency on how their data is being shared.[15] With the advent of crypto assets, Web 3.0 is now being slated as the internet's next metamorphosis. Web 3.0 envisions an internet that is decentralised, where no centralised intermediary serves as the arbiter of what is posted and what is monetised, where users can trace their data, and garner value from it directly.[16] Crypto assets form the basis of Web 3.0. They will serve as transaction fuel for the various applications built on top of their native blockchains or operate as mediums of exchange within these applications.

2. India is one of the fastest growing crypto markets in the world.

According to a report by Chainalysis, India is one of the fastest growing crypto markets in the world.[17] It has around 15 million crypto asset users[18] and 350 crypto start-ups.[19] According to another report in the Economic Times, Indians have around USD 10 billion invested in crypto assets.[20] The crypto asset industry thus presents an opportunity for India to be a leader in the development of a frontier technology industry that is pegged to serve as the future of both finance and the internet.

3. Private crypto markets will help guide decision-makers on how to reckon with digitised financial markets.[21]

The Bank of England (BOE) highlights that the demand for new forms of digital money could lead to deposit instability and a variety of other risks.[22] This could impact the cost of bank borrowing, and therefore tighten credit conditions that will lead to less lending.[23] However, the BOE also states that "only when new forms of digital money emerge…will the implications for the wider financial system start to become apparent."[24] That is, experimentation is key – and India is at liberty to do this at scale by virtue of its burgeoning private crypto asset market.

The Indian state should look to crypto entrepreneurs as advisers to help it understand risk factors, share knowledge on the development of a domestic Central Bank Digital Currency

(CBDC), and offer solutions to automate regulatory compliance. Illustratively, the US-based crypto giant Coinbase, which has invested in Indian crypto exchanges that now enjoy unicorn status themselves, is part of an effort that seeks to create a tool that simplifies KYC and anti-money laundering-related compliances for exchanges.[25]

4. A flourishing domestic crypto market gives India leverage in global conversations around crypto assets.[26]

A well-established private domestic market for a product, technological or others, gives a country leverage in global conversations. China missed the opportunity by shutting its private crypto asset sector down. India must learn from its neighbour's mistake and preserve the strategic advantage that its private crypto asset ecosystem presents. Doing so will help cement its own position as a global leader in a frontier technological space.

5. Bans often lead to unintended consequences.[27]

India has a history of banning goods and services that exemplify innovation in new markets. Such bans often lead to unintended consequences, which include large revenue losses to the government that impact the livelihoods of people, and have had severe implications for industries, forcing them to enter illegal markets.[28,29]

A recent example of such a ban was on the use of drones in India in 2014.[30] It effectively clipped the wings of a nascent domestic industry, while people continued to use them in defiance of the ban.[31] Moreover, access to drones was not significantly obstructed since they were sold as toys in online and offline markets. The regulation did whittle down domestic drone innovation to a few academic projects and police applications. Meanwhile, Chinese companies such as Da-Jiang Innovations (DJI) manufactured recreational drones during 2014-2018 at scale and now command 70 percent of the global market. They have also diversified into end-to-end drone management services such as photo and video editing software.[32] In 2018, India realised that a blanket ban was ineffective and resulted in a missed opportunity for the domestic industry. It therefore introduced a regulatory framework to govern the use of drones in the country. Similarly, much earlier in the pre-liberalised era, India tried to ban the import of gold. However, after several years of trying to clamp down on smuggling, the government had to withdraw the ban.[33]

A prohibition on crypto asset may have similar repercussions for the crypto asset industry. Due to the decentralised nature of the technology and the ease of transferring crypto asset using the public key, it is technically impractical to stop the inflow of crypto asset from abroad.

Every crypto asset user has a public key and a private key. Since the former is accessible to everyone, people can receive crypto assets from anyone on the web.[34]

Additionally, the underlying blockchain of a crypto asset is replicated on millions of computers worldwide, with mining and nodes distributed across geographies.[35] Therefore, any attempt to prohibit the use of crypto assets would only hinder the growth of the domestic industry and push investors/traders into illicit markets.

6. Ban on crypto assets is unconstitutional.[36]

Various fundamental rights apply to the use of crypto assets in India, such as the right to carry out trade and business under Article 19(1)(g). Individuals whose professions entail mining, buying and selling as well as bartering crypto assets are arguably covered under the ambit of these rights.[37] In IAMAI v RBI,[38] the Supreme Court of India ruled that (i) individuals who buy and sell crypto assets as an occupation, and (ii) crypto asset exchanges, can invoke Article 19(1)(g).[39]

7. Fiscal stability and monetary policy

Regulators are concerned that current crypto asset ecosystems do not provide them with any levers with which they can manage financial stability. As the supply of crypto assets is somewhat automated, i.e., it is managed via pre-set protocols, there is limited scope for adjustment.[40] A further concern in India is that the generation of certain crypto assets which are capable of serving as money, impinges on sovereign function.

Certain crypto assets do carry some features of money:

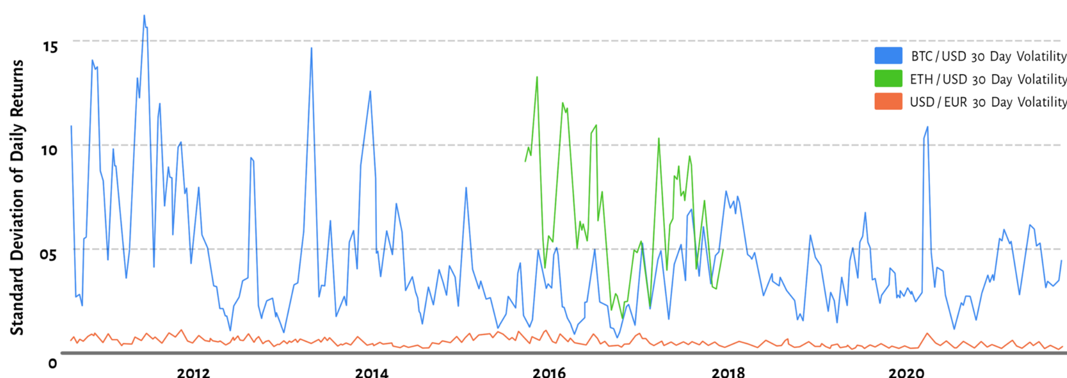
- They are digital, which makes them a convenient means of transaction.[41]
- Like cash, they are exchangeable peer-to-peer.[42]

However, crypto assets are unfit to serve the key functions of money, i.e., act as a unit of account, medium of exchange or a store of value, as they cannot scale like sovereign currency both in terms of monetary as well as transaction volumes; are highly volatile; and have no institutional guarantor and thus there is uncertainty around the finality of payments.[43]

Another concern regarding financial stability is the concentration of mining activity on major permissionless blockchain networks. Makarov and Schoar (2021) point out that Bitcoin mining activity is highly concentrated, which opens the network up to risks of transaction manipulation through 51 percent attacks.[44] The top 10 percent of miners account for 90

percent of mining activity.[45] A 51 percent attack essentially enables a miner who has control on over 51 percent of the blockchain network to tamper with its transaction logs. The risk of a 51 percent attack presents concerns about financial stability if a large percentage of the population relies on Bitcoin as a store of value.[46]

Figure 6: Bitcoin/USD volatility and Ethereum/USD volatility compared to USD/EUR (August 2010 to October 2021)



Source: "The Bitcoin Volatility Index," (3.51%) Bitcoin Volatility Index - Charts vs Dollar & More, accessed October 21, 2021, https://www.buybitcoinworldwide.com/volatility-index/.

8. Money Laundering and Financial Crime

User accounts in the crypto can be anonymous or pseudonymous.

As such, Indian authorities are concerned that crypto assets can serve as a useful vehicle to either evade capital controls in the country and transfer large volumes of funds abroad, or 'clean' illegal funds through Darknet crypto asset networks.[47] However, there are some attributes of crypto assets that aid in mitigating such activity.

- Crypto assets are traceable. Unlike cash which is completely untraceable, crypto assets can be tracked as their entire transaction history is stored on the blockchain. As the ecosystem has matured, crypto surveillance companies have found ways to deploy software to scrape transaction data and examine it for suspicious activity such as illegal accounts on the Dark Web and help law enforcement authorities track funds.[48]

- Due to the traceability of crypto assets, criminals attempt to obfuscate the link to the original crime or transaction by creating multiple wallets and addresses and converting their illegal bounty into different crypto assets.[49] The process is repeated several times, resulting in the creation of peeling chains, which Makarov and Schoar (2021) describe as a transaction history for a particular set of funds that have taken the long route

from one address to another.[50] Makarov and Schoar (2021) have, however, devised an algorithm that sifts through the peeling chains to get to the original transaction, and have successfully identified 640 million addresses, which belong to 189 million clusters, out of which 116 million are "single-address" clusters.[51]

- Crypto assets are largely transactions are pegged to a public crypto address or account number. Once authorities or companies are able to trace a suspicious flow of funds to a particular public address, they can glean a significant amount of information about the person behind it. The public address can be used to identify other transactions made by the individual and identify the crypto asset services they rely on.[52]

- In June 2021, for instance, the US Federal Bureau of Investigation was able to recover USD 2.3 million in crypto asset paid as ransom by the Colonial Pipeline, an energy infrastructure company that supplies fuel to 45 percent of the US east coast, to the cyber-criminal syndicate, Darkside.[53] Darkside's ransomware attack prompted Colonial Pipeline to shut down its entire network, and threatened to jeopardise energy security for a significant section of the country.

- In an affidavit, the FBI stated that a review of the Bitcoin public ledger enabled law enforcement authorities to track several Bitcoin transfers and isolate roughly 63.7 Bitcoins that were used by Colonial Pipeline as payment to Darkside.[54] These Bitcoins had been transferred to a particular address for which the FBI had the "private key" which was used decrypt the address account and give them access to the funds.[55]

- There have been academic efforts aimed at breaking through the shroud of anonymity in the Bitcoin network as well. Makarov and Schoar (2021) have built a novel database to map activity on the Bitcoin market.[56] Their research has found that 75 percent of transactional activity on the Bitcoin network is linked to exchanges or crypto asset storage services, institutional traders, and over-the-counter trading desks.[57] More importantly, their research has uncovered that only 3 percent of the activity on the Bitcoin network is devoted to illegal activities and scams.[58]

- Further, there are also blockchain analysis service providers such as Chainanalysis and Bitfury Crystal Blockchain that have developed software to link crypto asset movement with public addresses on the Bitcoin blockchain in order to help unearth the identities of the individuals or institutions behind the anonymous public addresses. These companies work with governments and law enforcement to help.

- Centrally controlled crypto assets such as stable coins over which there is centralised control have proved useful in thwarting financial crimes. Due to the volatility of high value crypto-assets like Bitcoin and Ethereum, reports suggest that criminals have a preference to convert them into stable coins which are pegged to some underlying asset with less value volatility such as a fiat currency. In 2021, hackers made off with USD 610 million from the Poly Network, a crypto asset swapping platform that allows users to exchange different types of crypto assets. A small portion of the money was converted into Tether, a stable coin that is pegged to the value of the US dollar. Tether froze the assets and was able to release the funds to their rightful owners two weeks later. The Poly Network was also able to recover the remainder of funds after the ethical hacker who stole the money then shared his private key.[59]

- Both centralised and decentralised crypto protocols come with advantages. While in crypto assets with centralised control either the protocol or point of access is more easily manoeuvrable, decentralised protocols afford trackability.

9. Investor Protection

- The crypto industry in India has borne witness to numerous scams over the years. There was the BitConnect Scam in 2017. BitConnect was a business that allowed Bitcoin owners to earn interest on their Bitcoin. BitConnect worked as a multi-level marketing scheme. Bitcoin owners could loan BitConnect their Bitcoin in exchange for BCC tokens and earn 1 percent daily interest on their Bitcoin holdings and more if they brought more people on board. The value of BCC tokens was appreciating quickly, rising from USD 50 to USD 362 in a year, which prompted more investors to come in. In January 2018, the securities boards of two US states, Texas and North Carolina, barred BitConnect from operating. BitConnect shuttered its operations, repaid its customers in worthless BCC, and its promoters kept their clients' Bitcoin for themselves, which was worth INR 220 billion at the time.[60]

- However, these scams are a function of a lack of investor protection mandates around disclosure, awareness, and education. If such regulations are instituted, it is likely that investor vulnerability to such criminal activity can be significantly mitigated in the future.

10. Regulatory Certainty for Industry Stakeholders

- Crypto assets currently operate in a grey area in India. The absence of regulation creates uncertainty for industry players, opening them up to unforeseen liability with enforcement authorities. In India, crypto exchanges such as WazirX have received notices from the Enforcement Directorate, the nodal law enforcement authority for financial crime in the country, for violations of the Foreign Exchange Management Act, 1999 (FEMA).[61] In the absence of any clarifications issued regarding how FEMA or any other law may touch upon the business of crypto asset services, it is difficult for these businesses to navigate such frameworks autonomously.

- Regulatory certainty also plays an important role in building consumer trust in a market.[62] Robust regulation is essential to building consumer trust and confidence in financial services.[63] For instance, the United States enacted the Securities Act of 1933 and the Securities Exchange Act of 1934 with the express objective of bolstering consumer confidence and trust in the financial market. Regulations such as "detailed disclosure, private rights of action, and government oversight" reduce the cost of trusting the issuer, thereby increasing trust in the system.[64]

- Finally, regulatory certainty is necessary to ensure continued capital investment. According to the UK Department for Business Innovation & Skills, the regulatory climate in a market has significant bearing on investment and it is important that frameworks "avoid adding undue uncertainty".[65]

11. Tax Evasion

In 2013, Marian hypothesised that crypto assets could serve as a new "weapon of choice" for tax evaders.[66] Marian (2013) contended that crypto assets carried many features typical of tax havens – they were unregulated, they enabled anonymity, and they were delinked from institutionalised finance.[67] However, crypto asset markets have matured considerably since this initial analysis. As this report reveals, a majority of jurisdictions across the world are able to tax crypto holdings.

Why Crypto Should Be Regulated, Not Banned: Key Takeaways

- India is one of the fastest growing crypto markets in the world with around 15 million cryptocurrency users and 350 crypto startups. A flourishing domestic crypto market gives India leverage in global conversations surrounding crypto governance.

- Private crypto assets provide useful guidance on how to reckon with future financial markets where assets and currencies will be increasingly digitised.

- Bans often lead to unintended consequences. India's experience with attempting to ban drones reveals that bans are generally unenforceable and only serve to hinder the prospects of the development of a new industry in the country. A ban on crypto assets/exchanges would also be unconstitutional.

- Recent research reveals that only 3 percent of the volume of Bitcoin are used in illegal activity. As such, the policy concerns presented by crypto markets can be mitigated through regulatory interventions related to money laundering, tax treatment, investor protection, and fiscal stability.

- Mining activity on the Bitcoin network is significantly concentrated which raises concerns about the financial welfare of the nation if a large percentage of the population relies on Bitcoin as a store of value.

- Crypto assets are generally traceable stores of value as crypto accounts have a public address.

- The opacity of crypto holdings and the activity in crypto networks is steadily being whittled away through the efforts of academics, law enforcement authorities, and analysis tools such as Chainanalysis and Bitfury Crystal Blockchain.

- Regulation is necessary to foster trust in crypto markets and safeguard the interests of the 15 million+ Indians that have invested in crypto. In the absence of concrete laws and measures surrounding investor protection, any financial investment space poses some risk.

- As crypto assets are native to decentralised networks, regulators must look to points of centralisation within crypto markets to regulate them effectively. As a study from NBER reveals, crypto exchanges account for 75% of activity in crypto markets and are, thus, the most practical entities through which regulation can be enforced.

- The controversies that arise in relation to crypto assets are a function of the absence of appropriate regulations and safeguards. The regulatory concerns highlighted in this section are being addressed by regulators across the globe.

How Other Jurisdictions are Approaching Crypto Asset Regulation

THE REGULATORY CONCERNS posed by crypto assets highlighted in the previous section—namely, fiscal stability, money laundering, investor protection, regulatory certainty, and tax evasion—are being tackled by several jurisdictions across the globe. Most countries focus on the elements of definition, classification, registration for market participants, anti-money laundering obligations, investor protection, and taxation.

In our effort to establish regulatory recommendations for India, we have carried out an exhaustive study of international regulatory approaches and grouped them into four categories. The first approach involves accommodating crypto assets into existing frameworks as they stand. The problem with this approach is that several crypto assets do not fall neatly into the definition of existing financial instruments and therefore fall outside the regulatory ambit. The second approach is innovation-friendly steps taken by some regulators to encourage start-ups to set up base within their jurisdictions and help the local crypto industry grow. The third is crypto-specific legislation or amendments which address the concerns around licensing and registration, definition, tax, money laundering and terror financing, and investor protection. This approach is comprehensive and seems the most practical route and is being adopted by most advanced financial jurisdictions. The following section provides details on these approaches and live examples of how they operate in different countries. (There can be overlap in one jurisdiction of many different approaches.)

1. Accommodation within existing legislation

The adaptive approach attempts to address some of the regulatory concerns raised by crypto without affecting innovation. This usually involves extending the application of existing regulation to certain crypto assets and keeping a close watch on the ecosystem so that innovation remains unaffected, and a more specific framework may be devised at the opportune time.[68]

1.1 European Union

Most European nations have two levels of governance. The first level is EU-wide directives which are then transposed by member countries into their domestic laws. These include the regulations and guidance issued by the European Supervisory Authority which comprises the European Banking Authority (EBA), the European Insurance and Occupational Pensions Authority (EIOPA), and the European Securities and Markets Authority (ESMA). The second level is national regulation and legislation. Given the cross-border nature of crypto assets, the European Supervisory Authorities[69] for financial regulation, advocate for an EU-wide approach. However, there is some concern about the inconsistency amongst member states in the transposition of EU directives as well as additional laws specific to crypto assets that may create an uneven playing field.

At the continental level, crypto assets can either qualify as “financial instruments”[70] (different types of securities and commodities and even include carbon credits) under the Directive 2014/65/EU, the Markets in Financial Instruments Directive II (“MiFID II”) or “electronic

money”[71] under the Directive 2009/110/EC (“2EMD”).[72] The Financial Conduct Authority in the UK includes instruments falling under MiFiD II as security tokens and regulates them accordingly. In terms of crypto assets, both ESMA and the EBA advise financial regulators to make determinations across specific cases to assess whether these regulations apply to crypto assets.[73] They also recommend that assessments of crypto assets for the purposes of classification be carried out on the basis of intrinsic factors such as the types of rights that accrue to owners rather than extrinsic factors such as use-case.[74]

In a survey of 29 European countries carried out by ESMA, 17 respondents noted that an investment component, i.e. expectation of future profit, is necessary to classify a crypto asset as a transferable security.[75] Eighteen respondents concurred that the crypto assets presented for the survey that meet the relevant criteria within their jurisdictions must be regulated as financial instruments.[76] However, ESMA concluded that “pure-payment type” crypto assets such as Bitcoin, Litecoin, and Ether are “unlikely to qualify as financial instruments” under MiFiD II.[77]

1.2 United Kingdom[78]

The Financial Conduct Authority, the United Kingdom’s nodal financial regulator, defines crypto assets based on their “intrinsic structure” and “designed use”. Using this conceptual framework, it divides crypto assets into two broad categories: regulated tokens and unregulated tokens.

Regulated tokens are tokens that fall within the FCA’s regulatory ambit. These consist of:

- **Security tokens**: These tokens grant contractual rights to ownership of other contractual obligations by virtue of such ownership or entitlement to profit-share. Security tokens are equivalent to “Specified Investments” under The Financial Services and Markets Act 2000 (Regulated Activities) Order 2001 which includes different types of investment contracts. Security tokens can also be financial securities or other financial instruments specified under the EU’s MiFiD II). Security tokens do not include e-money.

- **E-money tokens:** These include any tokens which can be classified as e-money under the UK Electronic Money Regulation 2011. Broadly, e-money is defined under the regulations as an electronically stored monetary value that is issued and used for payments. E-money does not include instruments like store credit or gift cards.

- Unregulated tokens include any tokens that can be "redeemed for a product or service" and include Bitcoin, Litecoin and other similar crypto assets.

1.3 United States

- There are numerous financial regulators in the United States that are governing crypto assets in line with their regulatory ambit. Some of the more salient definitional approaches are highlighted in the following points.

Securities and Exchange Commission

- The SEC oversees the implementation and enforcement of US federal securities laws. The term 'security' is defined exhaustively under the US Securities Act of 1933 and includes, among others, an investment contract. The definition for 'investment contract', in turn, was set down in the case of SEC v. W.J. Howey Co.[79] The SEC relies on criteria set down in the Howey matter (Howey test) to determine whether a novel instrument or arrangement, such as a digital asset, is classifiable as a security. The assessment was made across specific cases.[80]

- Broadly, a digital asset meets the tenets of the Howey test and is deemed an investment contract if it encompasses the following criteria:

- Investment of money: The offer and sale of an asset satisfies this requirement, as it is generally purchased or acquired from some exchange of value. Money here is defined very broadly to encompass "any type of consideration";

- In a common enterprise: This part of the Howey test is satisfied if the "fortunes of digital asset purchasers have been linked to each other or to the success of the promoter's efforts"; and

- A reasonable expectation of profit derived from the efforts of others: The final part of the Howey test is met if the purchaser of the digital asset expects a return on his or her investment which is necessarily linked to the action of an actor that is affiliated or essential to the operation of digital asset or its underlying network or enterprise.[81]

- Any crypto-business offering crypto asset securities must register its prospectus with the SEC.

Commodity Futures Trading Commission[82]

- The CFTC was established in 1974 following a series of irregularities in the US futures markets. The CFTC has exclusive jurisdiction over futures trading in all commodities, derivatives, and most aspects of swaps. It is tasked with ensuring the integrity of such markets by deterring and preventing market manipulation, mitigating system risks, and protecting market participants from fraud and other abusive practices.

- The US Commodity Exchange Act defines commodities broadly to include "all services, rights, and interests in which contracts for future delivery are presently or in the future dealt in." In 1981, the US Seventh Circuit Court determined that the CFTC has jurisdiction over any digital asset once it becomes a commodity through the opening of a legitimate futures market. In light of the broad definition of commodities and the decision in *Board of Trade of City of Chicago v SEC* before the 7th Circuit[83], the CFTC asserts that Bitcoin and other crypto assets can be treated as commodities.[84]

- Crypto platforms offering crypto-asset commodities must register with the CFTC.

Department of Treasury Financial Crimes Enforcement Network

- FINCEN is the leading authority in the US for anti-money laundering and financial intelligence.

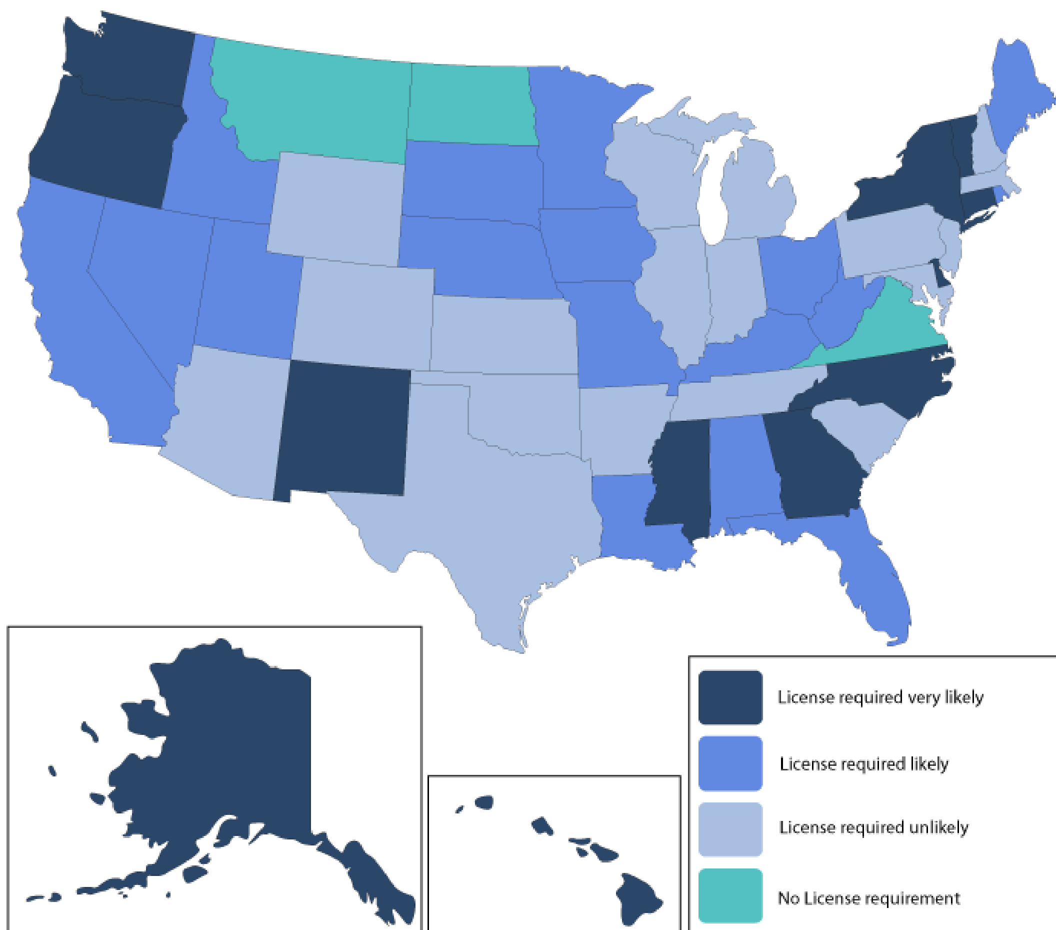
- It defines crypto-exchanges and issuers of crypto assets that deal in convertible crypto assets, that is, crypto assets that either act as a substitute for real currency or have an equivalent value in crypto assets, as Money Service Businesses (MSBs).[85] FINCEN regulations define MSBs as persons which, among others, provide money transmission services.[86] Crypto-asset service providers that qualify as entities regulated by the SEC and the CFTC do not ordinarily come under the classification of an MSB.

- Crypto-exchanges classifiable as MSBs must register with FINCEN.[87] Moreover, the Office of the Comptroller of the Currency is also offering a licensing scheme for financial technology companies crypto-asset service providers to obtain a license to operate as a Special Purpose National Bank. An SPNB is a banking service provider that "engages in a limited range of banking or fiduciary activities, targets a limited customer base, incorporates non-traditional finance elements, or has a narrow business plan".[88]

State Money Transmitter Laws

- Money transmitters are required to obtain a money transmission license in every state they operate in. Aside from Montana, which does not have a local money transmitter law, most states require crypto businesses to get a license. However, some states have exempted or are attempting to exempt crypto-businesses from these licensing requirements under the money transmitter laws.[89] (See Figure 7)

Figure 7: Licensing Requirements Under State Money Transmitter Laws in the US



Source: Map created by authors using data from "Money Transmitter Registration And Licensing: U.S. Cryptocurrency Entities." SIA Partners.[90]

2. Innovation-Friendly

Anticipating the potential of crypto assets to create value, several jurisdictions have taken a liberalised approach to regulating crypto assets. This approach generally involves regulators working together with industry experts to create frameworks or establish a co-regulatory structure for oversight.

2.1 Japan

Japan has introduced a framework for self-regulation for crypto exchanges.[91] Two self-regulatory bodies, the Japanese Cryptocurrency Exchange Association and the Japan STO Association, have been formed to ensure compliance with regulation in the country.[92] Japan's decision towards self-regulation emanates from an acceptance that crypto-industry stakeholders have better knowledge of its dynamics than state administrators.[93]

2.2 United States

A bill pending before the US Congress, the Clarity for Digital Tokens Act of 2021, seeks to provide a safe harbour for token network developers within which they can grow their decentralised networks relatively unfettered.[94] The safe harbour exempts them from registration under federal securities laws and applies to token issuers who are creating products that serve as a means of exchange or utility.[95]

The safe harbour construct in the Clarity for Digital Tokens Act of 2021 is based on the work of SEC Chair Hester Pierce, who conceptualised a framework for a time-limited safe harbour for tokens that are in the development phase or just launched. According to Pierce;[96]

"[The] safe harbor is intended to provide Initial Development Teams with a three-year time period within which they can facilitate participation in, and the continued development of, a functional or decentralized network, exempt from the registration provisions of the federal securities laws so long as certain conditions are met. The safe harbor is designed to protect Token purchasers by requiring disclosures tailored to the needs of the purchasers and preserving the application of the anti-fraud provisions of the federal securities laws to Token distributions by an Initial Development Team relying on the safe harbor."

2.2.1 Wyoming[97]

In a bid to receive more investment, the government of the US state of Wyoming has passed and proposed crypto-friendly legislation over the last two years. Wyoming also passed House Bill 74 which allows crypto-asset service providers to operate as special purpose banks. In the legislative mill are House Bill 57, which creates a regulatory sandbox for fintech, and House Bill 27 which provides for a committee of experts that will help build capacity in government to make better crypto laws by helping officials understand the technology better for improved law-making in the future.

3. Crypto-Specific

Several jurisdictions are legislating to address the policy concerns raised by crypto assets. These include the enactment of new laws specific to crypto, or amendments to existing laws to define crypto assets, license crypto asset service providers, ensure compliance with AML/CFT requirements, tax earnings on crypto assets and protect investors.

3.1 Definition

Due to the friction between crypto assets and existing financial asset frameworks, most countries have largely classified crypto assets as assets within their jurisdictions. A broader classification creates room for normative flexibility which is necessary for the development of an emerging technology industry.

3.1.1 Europe

To overcome the gaps in existing frameworks at the EU level and the disharmony of oversight at the national level, the European Commission in 2020 proposed a regulation for Markets in Crypto-Assets (MiCA). MiCA was brought out as part of the EU's Digital Finance package, a strategy which aims to ensure that financial service regulation is "innovation-friendly" and does not inhibit the implementation and use of emerging technology.[98] MiCA defines crypto-assets similarly as any digital representation of value or rights capable of being stored or transferred electronically using distributed ledger[99] or similar technology.[100]

3.1.2 Canada

The Financial Transactions and Report Analysis Centre of Canada, the country's financial intelligence body, defines crypto assets as digital representations of value that can be used

for payments, investment, or retail.[101] The definition includes utility tokens that may be used in a virtual setting but cannot be converted into fiat currency or other crypto assets.[102] Crypto assets can be further classified as securities or crypto-asset contracts.[103]

3.1.3 Mexico

In 2018, Mexico passed the Financial Technology Institutions Law which encompasses a definition for virtual assets that focuses on the following aspects:[104]

a. A representation of value that relies on a digital ledger and can only be transmitted and stored electronically.
b. Used by the public for legitimate and legal activities.
c. Is not legal tender or equivalent to any foreign legal tender or currency.

3.1.4 United States

The US's regulatory approach to crypto assets is highly fragmented. To reiterate, US federal financial regulators are trying to accommodate certain crypto assets within existing definitions of financial instruments under their purview. There have, however, been efforts to bring in greater clarity on the definitional aspect of digital assets in the United States. The Digital Commodity Exchange Act, for instance, which was introduced by House Republican Rep. Michael Conaway, attempts to bring in a conceptual distinction between crypto-commodities and securities, bringing the former within the jurisdiction of the CFTC. It defines a digital commodity as any form of fungible intangible personal property that can be exclusively possessed and transferred person to person without necessary reliance on an intermediary, and which does not represent a financial interest in a company, partnership, or investment vehicle."[105]

In November 2021, the Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, and the Office of the Comptroller of the Currency brought out a crypto-asset roadmap for 2022. Broadly, they will clarify the legal dimensions of the engagement of banking institutions in different activities related to crypto-assets.[106]

Figure 8: How Cryptoassets are Defined in Other Parts of the World

3.2 Licensing/Registration

Countries have generally either amended existing AML or financial regulation laws to bring crypto-asset service providers under a registration/licensing regime.

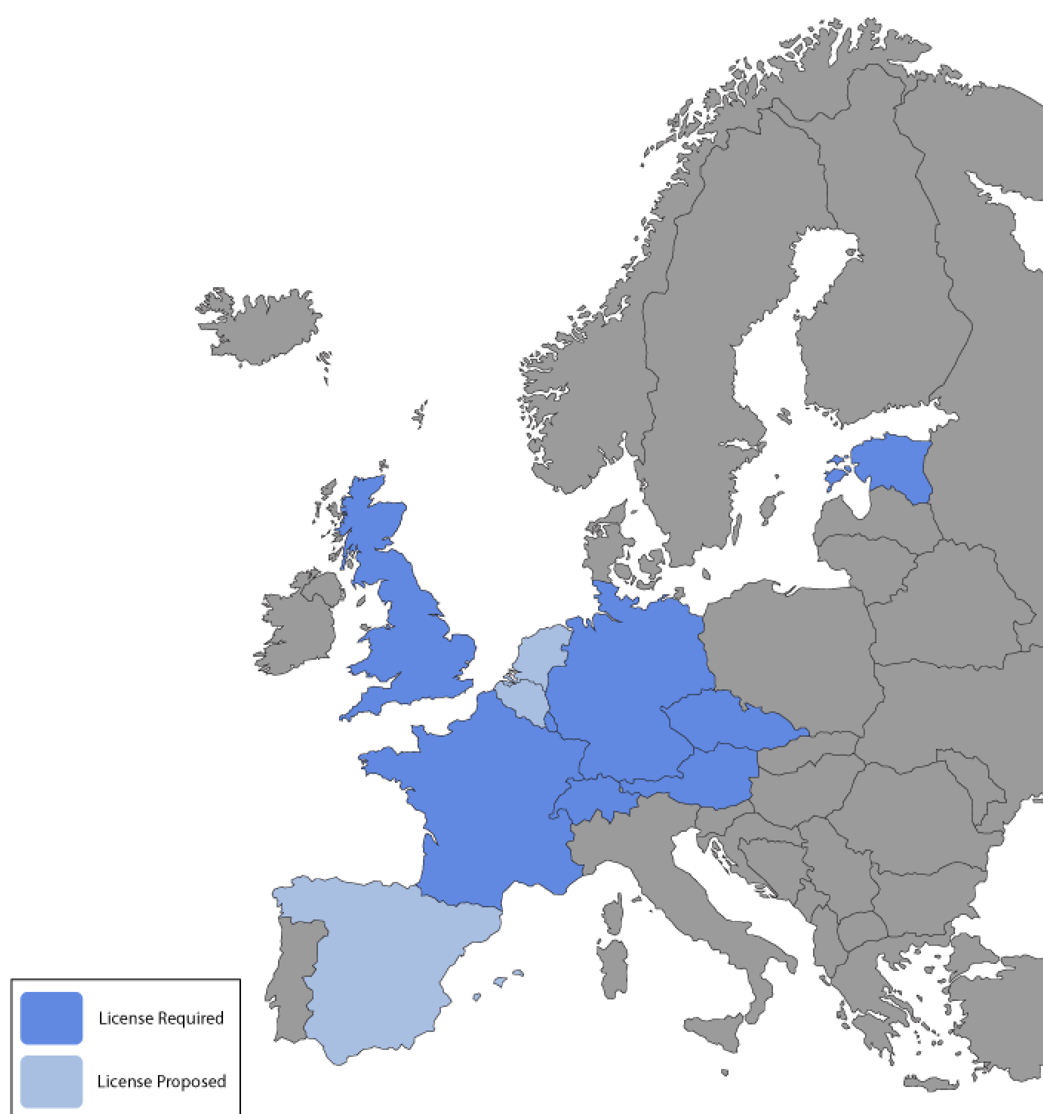
3.2.1 Europe

Article 47, paragraph 1 of the AMLD5 requires EU member states to register crypto-exchanges and custodians with domestic competent authorities.[107] Twelve European countries, however, have either introduced or proposed more stringent registration requirements such as

licensing under existing financial legislation applicable to securities or payments institutions (see figure 9).

MiCA, as it currently stands, provides for 'passportable' registration for crypto asset businesses. If MiCA is passed, registration in one EU nation would extend to all EU countries and such businesses would be permitted to offer their services across borders within the confines of the EU.[108]

Figure 9: Licensing Requirements for the Crypto Industry in Europe



Source: Authors' own

Note: Malta requires crypto asset service providers to obtain a license as does Liechtenstein.

3.2.2 Canada[109]

In Canada, the Financial Transactions and Reports Analysis Centre (FINTRAC) is the nodal oversight body for crypto-trading platforms. Crypto-trading platforms are either classified as Money Service Businesses or Foreign Money Service Businesses under the Proceeds of Crime (Money Laundering) and Terrorist Financing Act (PCMLTFA). Domestic exchanges as well as foreign exchanges with Canadian customers must register with FINTRAC.

Crypto-trading platforms that deal with securities must register either as Dealer Platforms or Marketplace Platforms based on their business model. A Dealer Platform serves as the counterparty for all crypto-asset trades on their service whereas Marketplace Platforms bring together many sellers and buyers of crypto-assets. If there are any businesses that operate as a "hybrid" of these two models, they may be eligible for certain compliance exemptions.

3.2.3 Mexico

The 2018 Fintech Law oversees the operations of Financial Technology Institutions (ITFs - Spanish abbreviation), which include crowdfunding sites; crypto-custodial and exchange services; and emerging fintech companies.[110] ITFs are required to secure licenses from the National Banking and Securities Commission.

3.2.4 Japan

Japan amended its Payment Services Act to bring crypto assets under the definition of property and requires crypto asset exchanges and custodian service providers to register with the Financial Service Agency, the country's nodal financial regulator.[111]

3.2.5 Australia

Crypto exchanges are required to obtain a market license and also to register with the Australian Transaction Reports and Analysis Centre (AUSTRAC), the country's nodal anti-money laundering and financial intelligence unit.[112]

Figure 10: Registration Requirements and AML Requirements in the Asia-Pacific and Africa

3.3 Anti-Money Laundering

3.3.1 European Union

The European Union brought out the fifth Anti-Money Laundering Directive (AMLD5) in 2018 and the regulation came into force in 2020. As mentioned in the previous section, the AMLD5 encompasses a definition for crypto assets. Under the AMLD5, crypto asset exchanges and wallets are required to register with domestic competent authorities and comply with Customer Due Diligence requirements, actively monitor their networks, and report suspicious activity. The AMLD5 attempts to solve for the problem of anonymity with crypto assets by enabling Financial Intelligence Units to collect information on the identities and residences of

crypto asset owners.[113] The AMLD5 also contains a provision under which the EU will produce a list of countries considered high-risk and regulated entities must carry out enhanced due diligence when transferring money in and out of these nations.

As of May 2021, 25 EU member states and the UK have fully transposed the AMLD5, while two have partially done so.[114] Three EU members—Germany, the Czech Republic, and France—as well as the UK also have stricter AML requirements for crypto market stakeholders than AMLD5.[115] In July 2021, the EU brought a set of legislative proposals to bolster its AML regime. These expand the scope of EU AML law to crypto-asset service providers, crowdfunding platforms, and migration operators. These include a proposal for an EU-wide AML/CFT authority and enhanced traceability requirements for crypto-asset service providers.

3.3.2 United Kingdom

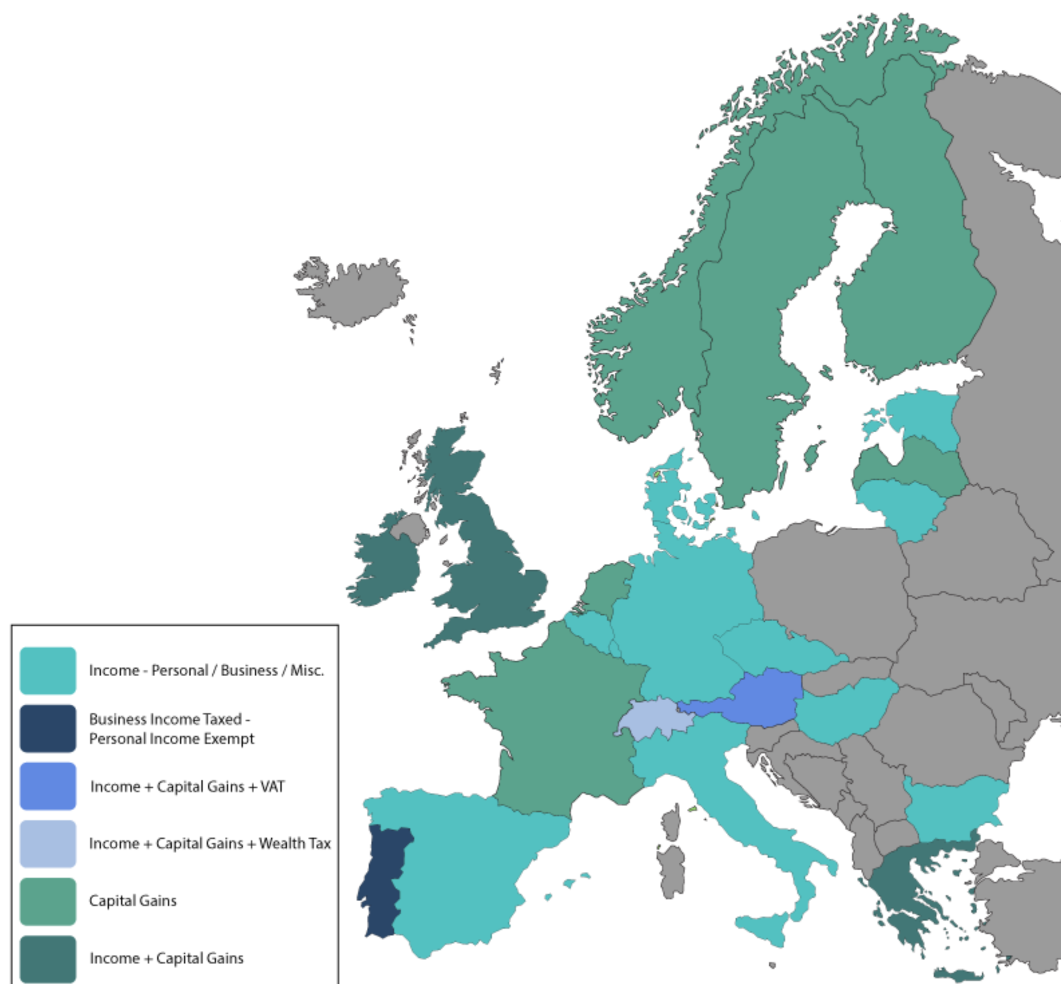
The UK requires crypto-custodians and exchanges to register with its Financial Conduct Authority, the nodal body for financial regulation in the countries. Aside from the requirements set forth in AMLD5, regulated crypto-asset service providers must comply with the UK's Money Laundering Regulations, which include a provision for record-keeping to identify beneficial owners. However, these requirements only extend to regulated activities—i.e., transactions in crypto-tokens that can be classified as either e-money or a financial instrument.[116]

3.4 Taxation

3.4.1 Europe

Most European nations tax earnings from crypto assets either as income or capital gains or a mix of both. Following a decision of the Court of Justice of the European Union which stated that conversion of currency into Bitcoin is a supply of services that is exempt from Value-Added-Tax, several countries exempted crypto asset trading from VAT.[117]

Figure 11: Tax Treatment of Crypto Assets in Different European Countries



Source: Authors' own compilation

3.4.2 North America

As shown in Figure 12, there is no consistency in the tax treatment of crypto assets in North America. Aside from the tax norms provided in Figure 12, the United States recently enacted the Infrastructure Investment and Jobs Act which brings in reporting for crypto assets that have certain tax implications. Specifically, the IIJA broadens the definition of a "broker" to include any person engaged in the provision of services involving the transmission of crypto assets.[118]

Figure 12: Tax Treatment of Crypto Assets in North America

Source: Authors' own

3.5 Investor Protection/Consumer Protection/Regulation of Promotion of Crypto Assets

3.5.1 Europe

Most crypto assets currently fall outside the purview of EU regulations and domestic law pertaining to investor protection. MiCA proposes to overcome this gap in EU law. Investor protections under MiCA emphasise disclosure of relevant information by different crypto-asset service providers. For instance, crypto issuers must draw up a whitepaper for their coin offerings before releasing them to the market and notify regulatory authorities about its publication.[119] These whitepapers must include all material information which may have an

effect on the assessment of the crypto assets offered to the public or admitted to trading on a trading platform.[120] MiCA also contains provisions to check market abuse activities such as fraud, insider information and dealing, and market manipulation.[121]

Other nations in Europe have issued norms to regulate advertising related to crypto assets to mitigate the spread of misinformation and fraudulent claims.

3.5.2 United Kingdom

The UK launched a consultation paper in July 2020 which proposed to extend the applicability of the financial promotion restriction under the Financial Services and Markets Act 2000 to unregulated tokens.[122] Broadly, the restriction stipulates that "a person must not, in the course of business, communicate an invitation or inducement to engage in investment activity or claims management activity."[123]

4. Prohibitive Regulations

Some countries have chosen to implement restrictive regulation against crypto assets. These include outright bans on or prohibitions on trading crypto assets, or restrictions on certain types of offerings, or barring traditional financial institutions from dealing with crypto service providers. Figure 13 illustrates the prohibitive stances taken by some countries around the world.

4.1 United Kingdom

The UK FCA has prohibited the marketing, sale, distribution of crypto derivatives and exchange traded notes.[124] The FCA has cited that these are overtly speculative financial products that present undue risk for investors.[125]

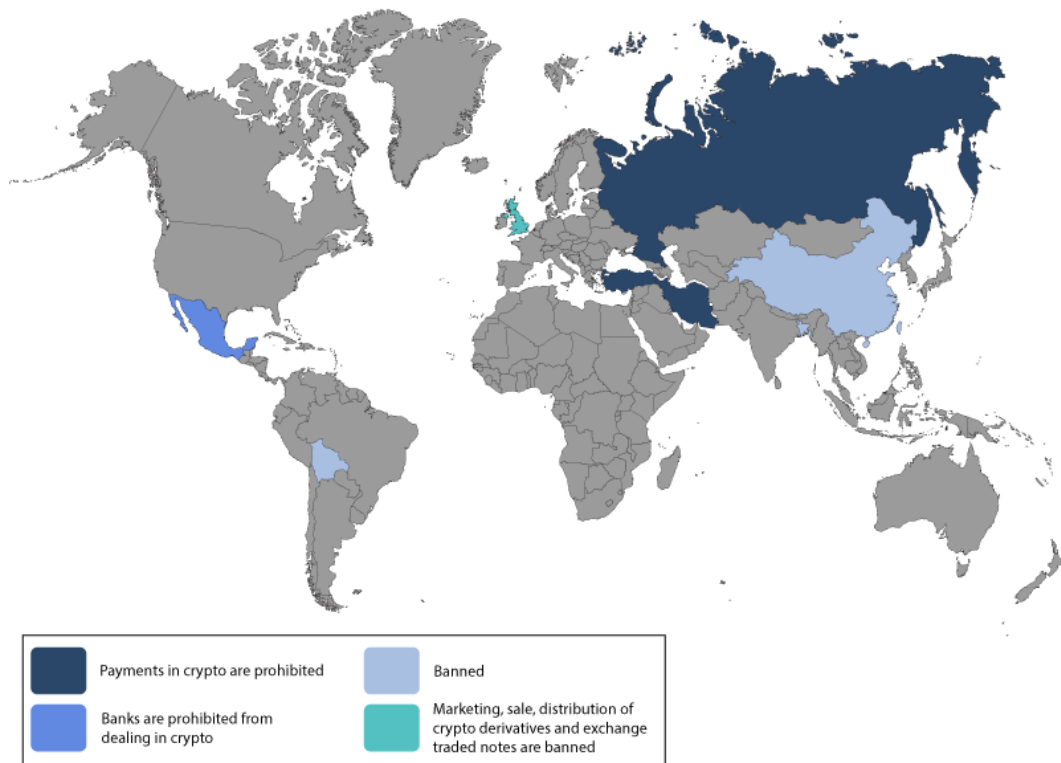
4.2 China

China has banned all trading in crypto assets. It is speculated that the ban came amid concerns about capital flight through crypto assets in the country.[126]

4.3 Iran[127]

Iran has barred any foreign trading in crypto in a bid to prevent capital flight. Miners in the country are required to obtain licenses as are crypto exchanges. Iran has also banned the use of crypto assets for payments.

Figure 13: Restrictions on the Crypto Industry Across the World



Takeaways from the Global Experience

- Most jurisdictions have recognised that there are insurmountable problems with force-fitting crypto assets within existing financial regulation frameworks. In some jurisdictions, it leaves several crypto assets outside the purview of regulatory oversight; in others, it fails to adequately address the range of policy concerns raised by crypto assets in a manner that is also innovation-friendly.

- Broadly, the jurisdictions that are bringing out new frameworks, such as Japan with its decision to allow the industry to self-regulate, are possibly going to emerge as the most successful at reaping the gains from the crypto-ecosystem while also managing the risks that it presents effectively.

- The volume of regulatory activity within the United States indicates that the country is still grappling with how to deploy a whole-of-government approach to regulate crypto assets. On October 5, 2021, SEC Chair Gary Gensler spoke before a House hearing and stated that the United States had no intention to ban crypto. Rather the SEC was working in tandem with other regulators to solve for issues pertaining to consumer and investment protection, money laundering, tax compliance, and financial stability concerns raised by stable coins.

Regulatory Pathways for Crypto Assets in India under Existing Regulation

SPECULATION AROUND THE crypto asset bill indicates that crypto assets will be defined as an asset, a security or a commodity. Our approach sought to understand if crypto assets could be accommodated within existing financial frameworks. The asset classes we have chosen—namely, capital assets, securities, and commodities—represented

the broadest asset classifications under such frameworks. We have not dealt with the treatment of crypto assets as a currency in this section because such an exercise lies beyond the scope of this paper. The present section outlines the regulatory implications for the crypto asset industry under each of these asset classes. It broadly analyses whether they could be accommodated under existing definitions and highlights the challenges that lie ahead, before making a decision on any regulatory pathway. A detailed breakdown of how regulation would operate if crypto was classified as any of the asset classes listed below is provided in Tables 1, 2, and 3.

Summary Box 1 - Crypto Assets as Securities in India

One possible regulatory pathway for crypto assets in India is to consider regulating it as a security. The Securities Contract (Regulation) Act 1956 [SCRA] defines "securities" broadly, and courts have also noted its expansive ambit.

However, while exploring this possibility it is important to keep in mind that there is no specific guidance on its application to crypto-assets, so it is unclear whether they can be treated as securities. If crypto-assets are regulated as securities, crypto exchanges will be subjected to registration requirements under the SCRA, and the central government will grant recognition to them if they satisfy certain criteria laid down under the Act. They will also be subjected to compliances (such as furnishing of returns) under the Act. Further, they will be required to observe KYC/anti-money laundering and investor protection measures.

There are a few challenges with adopting this route. A reading of the Consolidated FDI Policy 2020 suggests that Foreign Direct Investment (FDI) in exchanges and crypto wallets will be capped at 49 percent. There are also uncertainties regarding the application of the Foreign Exchange Management Act [FEMA] (which regulates foreign exchange and foreign trade) and tax implications. Table 1 shows the details.

Table 1: Regulatory Scenario for Crypto as a Security in India	
Inquiry	**Discussion**
Can crypto be defined as a security?	The Securities Contracts (Regulation) Act, 1956 defines "securities" inclusively. In past decisions, courts have noted that the word security under the SCR Act has an expansive ambit and can encompass any instrument which is marketable, that is, it has "an ease or facility of selling" and/or "a high degree of liquidity" and/or is "capable of being sold in a market".[128] Marketability also encompasses the quality of liquidity or ease of transferability. While courts determine that this quality is restricted to the shares of public limited companies, it may be extended to crypto assets given their ease of transactability. However, commentators have also suggested that the numerous instruments referenced in the SCRA such as non-transferable specific delivery contracts, spot delivery contracts, ready delivery contracts, and transferable delivery contracts may serve as useful guides on what constitutes a 'security' under the SCRA.[129] However, each of these instruments entails a set of rights which not all crypto may be able to guarantee. Moreover, the definition of 'securities' includes that they must be issued by body corporates, which would preclude its applicability to most crypto assets. Even if the issuers of different tokens were to incorporate themselves in India, crypto assets such as Bitcoin, which are generated by virtue of mining and whose original issuer is unknown, would not qualify. As such, in the absence of any specific guidance on the subject it is unclear whether crypto assets can be treated as securities.

Table 1: Regulatory Scenario for Crypto as a Security in India	
Inquiry	**Discussion**
If crypto is defined/notified as a security, what are the registration requirements for crypto exchanges?	Any stock exchange that is desirous of becoming a recognised stock exchange can make an application to the Central government, according to the procedure prescribed under Section 3 of SCRA. 1. The exchange must make an application to the Central Government, which include copies of its: a. By-laws for the regulation and control of contracts b. Rules relating to the exchange's general constitution which must include: • Details on the governing body, its constitution and powers of management and the manner in which it will operate; • Power and duties of office bearers; • Admission criteria for members (currencies) 2. In its decision on accepting or rejecting the application of the prospective exchange, the Central Government will assess whether: a. The by-laws of the applicant conform with prescribed investor protection and fair dealing norms. b. The applicant is willing to comply with additional prescriptions the Central Government may impose to carry out the purposes of the SCR Act. c. It would be in the interest of the trade as well as the public to grant recognition to the exchange. 3. The Central Government may prescribe: a. Qualifications for membership of an exchange; b. The manner in which contracts will be entered into and enforced between members; c. Who will represent the Central Government on the stock exchange; d. Conditions relating to the maintenance of member accounts and audit by chartered accountants. 4. For the Central government to grant recognition, it must be satisfied about the following, as per Section 4 of SCRA: a. The stock exchange will conform with prescribed conditions and ensure fair dealing and protection to investors b. The stock exchange is willing to comply with other conditions prescribed by the Central government after consultation with its governing body (including conditions on number of members, qualifications, manner of entering into contracts) c. It is in the interest of trade, as well as public interest, to grant recognition to the stock exchange Recognised exchanges can only amend their rules after taking permission from the Central Government. Any refusal to grant recognition to a stock exchange can only take place after giving the exchange concerned an opportunity to be heard. The reasons for refusal must be communicated in writing.

Table 1: Regulatory Scenario for Crypto as a Security in India	
Inquiry	**Discussion**
What are the compliance requirements for recognised exchanges?	Once a stock exchange has been granted recognition by the Central government, it must comply with the following requirements under SCRA: • It must be corporatized and demutualized in accordance with the provisions under Section 4B of SCRA [130] • It must furnish periodical returns of its affairs to SEBI. It must also maintain and preserve books of account and other documents prescribed by the Central government for a period not exceeding 5 years.[131] Failure to furnish such returns or otherwise comply with SEBI's directions can lead to a penalty not less than INR 500,000, which may extend to INR 250 million [132] • It must furnish annual returns to the Central government [133] • It must comply with any order by SEBI to make rules, or amend rules already made in respect of matters under Section 3(2) [which pertains to its application for recognition as a stock exchange] within two months from the order. [134] • It must ensure that at least 51 percent of its equity share capital is held by the public (other than shareholders having trading rights) within 12 months. It can do so by fresh issue of equity shares to the public, or any other manner specified by SEBI regulations.[135]
What powers does SEBI have over recognised exchanges?	SEBI can: 1. Amend the by-laws of exchanges. 2. Issue directions to recognised exchanges to protect the interests of investors 3. Register and regulate all custodian and depository applications
Will there be any Foreign Direct Investment restrictions for crypto-exchanges if crypto assets are recognised as securities?[136]	Yes. Once a stock exchange has been granted recognition by the Central government, it must comply with the following requirements under the Consolidated FDI Policy 2020 [137] • Infrastructure companies in securities markets – i.e. stock and commodity exchanges are subject to an FDI cap of 49 percent under the automatic route. • Foreign investments, including by FPIs, will be subjected to laws such as the Securities Contracts (Regulations) (Stock Exchanges and Clearing Corporations) Regulations 2012, and Securities and Exchange Board of India (Depositories and Participants) Regulations, 1996. They will also be subjected to guidelines and circulars issued by the Central government, SEBI and RBI where applicable.

Table 1: Regulatory Scenario for Crypto as a Security in India	
Inquiry	**Discussion**
What are the KYC requirements for recognised exchanges? [138]	Prior to opening an investment account, investors must provide information related to their identity with valid proof. They are also required to provide residential details and proof of address along with details about income, net worth and occupation. The KYC process can be carried out online. Online verification of details includes validation of contact information through one-time-passwords, authentication of Aadhaar by the UIDAI, PAN verification from the Income Tax database, and bank details can be verified through a Penny Drop mechanism. In-person verification/video in person verification is not required if Aadhaar authentication is carried out. Section 11A of the Prevention of Money Laundering Act, 2002 (PMLA) enables the Central Government to permit any entity that satisfies the standards of privacy and security set down in the Aadhaar (Targeted Delivery of Financial and Other Subsidies, Benefits and Services) Act, 2016, to carry out authentication of Aadhaar details as well.
What are the AML requirements for recognised exchanges?	All financial intermediaries, including those operating in the securities market, must follow the provisions in the PMLA, the SEBI Act and the rules, regulations, and circulars framed thereunder for client account opening and record keeping transactions. These activities are carried out through the prism of a risk-based approach. Thus, client due diligence is used to established whether a client is high- or low-risk. Record-keeping is carried out with the objective of understanding the audit trail of transaction end-to-end. Suspicious transactions are then reported to the Financial Intelligence Unit and other relevant authorities, particularly if it is above INR 1 million
What are the investor protection and consumer protection requirements recognised exchanges must comply with?	1. Investor capacity building 2. Transaction safety 3. Disclosure and transparency-based regulation 4. A grievance redressal mechanism for investors that encompasses dispute resolution through arbitration
What are the FEMA requirements for recognised exchanges?	Given the specific way in which securities are defined under FEMA, it is unlikely that crypto would come within its ambit if it is deemed a security.
What are the tax implications?	If a crypto asset is classified as a security, it may be subjected to taxes such as securities transaction tax, which is levied on the sale and purchase of securities listed on recognised stock exchanges in India.

Summary Box 2 - Crypto Assets as Commodities in India

Another alternative is to consider the regulation of crypto assets as a commodity (or a good). It is possible to consider crypto-assets as "goods" under the SCRA, because they can be considered intangible movable property. A similar interpretation is also supported by the jurisprudence of the Supreme Court of India. If crypto assets are regulated as commodities, crypto exchanges will need to be recognised by the central government under SCRA. Some broad compliances may be akin to those for securities, and similar FDI restrictions may also have an effect. However, there are a few areas in which the regulatory outcome could differ from regulation of securities. For example, there are more specific KYC/anti-money laundering as well as investor protection mechanisms for the commodity derivatives segment. Further, unlike securities, transactions in crypto assets could be covered under FEMA, since the Act regulates the import and export of goods. They could also be subjected to Goods and Services Tax (GST) under the Indian framework.

There are regulatory uncertainties in adopting this route as well. While it may technically be possible to classify crypto as a commodity, notified commodities falling under the purview of the Securities and Exchange Board of India (SEBI) must meet certain criteria, which may not be suited for emerging technologies like crypto assets. There are also concerns regarding double taxation and application of India's equalisation levy to crypto. Details are contained in Table 2.

Table 2: Regulatory Overview for Crypto as a Commodity in India	
Inquiry	**Discussion**
Can crypto be defined as a commodity under Indian law?	Yes. The term “commodity” has not been properly defined under any particular statute in India. The Securities Contract (Regulation) Act, 1956 defines “good” as “every kind of movable property other than actionable claims, money and securities.”[139] For crypto to be regulated as a commodity under the SCRA, it must be possible to demonstrate that it is a “good”. This is because the two main kinds of contracts that the SCRA regulates as commodities are ready delivery contracts (which are contracts for the delivery of goods immediately, or within 11 days) and commodity derivatives (which are contracts other than ready delivery contracts for the delivery of goods - for futures trading in commodities). Under the SCRA, “goods” must be movable property. The definition is wide enough to cover both tangible and intangible forms of movable property, and crypto may come under the latter. The Supreme Court has observed that both tangible and intangible property could be goods, if they have attributes of (i) utility, (ii) capability of being bought and sold, and (iii) capable of being transmitted, transferred, delivered, stored and possessed. It observed that even a software fulfilling these attributes can be a “good”.[140] Since crypto is a set of code that can be transferred over blockchain technology, it can be said to be intangible movable property – and thus fall under the definition of “good” under SCRA. In this way, crypto can be understood as a commodity. For futures trading to take place in crypto, it will need to meet certain criteria. Under Section 2(bc) of SCRA, contracts for the delivery of certain goods notified by the Centre (which are not ready delivery contracts) are commodity derivatives. Using this provision, the Central Government can choose to notify crypto as a good that can be traded in the commodity derivatives segment of stock exchanges. However, a SEBI FAQ document[141] states that notified commodities must meet certain criteria – such as having a relatively large demand and supply, capability of standardisation and gradation, adequate volatility etc. Note: In IAMAI v RBI (2020), the Supreme Court also noted that crypto is capable of being considered as an intangible property and a good.

Table 2: Regulatory Overview for Crypto as a Commodity in India	
Inquiry	**Discussion**
If crypto is defined as a commodity, what are the registration requirements for crypto exchanges? What are the standards for something to become a commodity exchange?	Under the SCRA, a stock exchange is understood as any body of individuals (incorporated or not), or a body corporate under the Companies Act, 2013 that assists, regulates, or controls the business of buying, selling and dealing in securities.[142] The definition of securities under SCRA includes derivatives[143] – of which commodity derivatives are a subset.[144] The SCRA also states that only recognised stock exchanges can assist, enter into and perform contracts in securities (which includes commodity derivatives).[145] Thus, any crypto exchange facilitating trade in the commodity derivatives segment must be a recognised stock exchange/commodity exchange[146] – i.e., recognised by the Centre under Section 4 of the SCRA. The procedure to apply for recognition, as well as the grant of recognition by the Centre for a commodities exchange is the same as that for securities.
Can crypto be traded on existing recognised commodity exchanges?	It is unclear whether crypto can be traded on existing recognised commodity exchanges. Trading in commodity derivatives involves trading of standardised derivative contracts (futures and options) of both agricultural and non-agricultural commodities on recognised stock exchanges, subject to the approval of SEBI.[147] However, if existing exchanges are able to devise the technology to deal in crypto-commodities they should be able to serve as valid crypto exchanges. As an illustration, the New York Stock Exchange recently listed a Bitcoin backed exchange-traded fund.[148]
What are the compliance requirements for recognised exchanges?	Same as securities.
What are the KYC requirements for recognised exchanges? Which agencies can conduct such KYC? Are beneficiaries covered?	As per a SEBI Master Circular issued in July 2021, the following are the KYC requirements for recognised exchanges with a commodity derivatives segment:[149] • They must ensure that their members collect copies of PAN cards issued to their existing and new clients, after verifying with the original and details on the website of the Income Tax Department. Members must upload details of the PAN/e-PAN as part of the Unique Client Code (UCC). They must also verify documents with respect to the unique client, and retain a copy. If members do not upload the UCC details of clients, stock exchanges must impose penalties on the member in the manner prescribed under the Circular.

Table 2: Regulatory Overview for Crypto as a Commodity in India	
Inquiry	**Discussion**
What are the investor protection and consumer protection requirements recognised exchanges must comply with?	In 2017, SEBI issued comprehensive guidelines regarding investor protection for national commodity derivative exchanges.[150] Commodity exchanges are now required to mandatorily establish investor protection and investor service funds.[151]All penalties levied and collected by the exchange will be credited to the Investor Protection Fund (IPF), and exchanges can use the income collected on the IPF corpus towards promoting investor education and awareness. Regarding the Investor Service Fund (ISF), exchanges are supposed to use these to establish Investor Service Centres (ISCs) that provide certain basic facilities – such as installing computer software providing information about various commodities. ISCs are required to provide pamphlets/brochures regarding the rights and obligations of investors while dealing with brokers in commodity markets, FAQs, etc. It must maintain a library of relevant laws, financial analysis and market trends analysis for the benefits of exchanges. Finally, the exchange must have a mechanism to record and receive complaints.[152]
What are the AML requirements for recognised exchanges? What entities are involved?	Under a 2013 amendment to the Prevention of Money Laundering Act, 2002 (PMLA) commodity exchanges and their members were brought under the ambit of the PMLA.[153] The amendment included "an association recognised or registered under the Forward Contracts (Regulation) Act, 1952 or any member of such association" under the definition of an intermediary under PMLA.[154] Intermediaries are reporting entities under the PMLA. Similar to securities exchanges, commodities exchanges must apply client due diligence measures on a risk-sensitive basis – i.e. enhanced due diligence process must be adopted for higher-risk clients.[155]

Table 2: Regulatory Overview for Crypto as a Commodity in India	
Inquiry	**Discussion**
What are the FEMA requirements for recognised commodities exchanges?	(i) Crypto as a commodity under FEMA FEMA does not define the term "goods." However, as mentioned earlier, the case of Tata Consultancy Services v State of Andhra Pradesh held that software can be treated as "goods", subject to meeting the requirements enunciated in the three-part test of the judgement. Further, the Foreign Exchange Management (Export of Goods and Services) Regulations, 2015[156] defines software as "any computer program, database, drawing, design, audio/video signals, any information by whatever name called in or on any medium other than in or on any physical medium".[157] From this, it flows that crypto can be interpreted to be a software – and thus a good under FEMA.[158] Under FEMA, transactions with persons residing outside India are of two kinds – capital account transactions and current account transactions. Capital account transactions must either (i) alter the assets and liabilities outside India of those resident in India, or (ii) alter the assets and liabilities in India of those resident outside India.[159] Crypto transactions may not fall under capital account transactions in FEMA – because the purchase of crypto by a person resident in India from one resident outside India does not alter the former's assets and liabilities outside India. Similarly, the sale of crypto from a person resident in India to one outside India does not alter the latter's assets and liabilities in the country.[160] However, crypto transactions may fall under current account transactions under FEMA. This is because current account transactions include "payments due in connection with foreign trade, other current businesses, services[...]"[161] Since it is possible to categorise crypto as a commodity, its purchase and sale between persons resident in and outside India can be categorised as "foreign trade". Thus, crypto transactions may be subjected to the FEMA (Current Account Transaction) Rules, 2000.[162] The import of crypto could be said to be subject to RBI's Master Direction on Import of Goods and Services[163] and the Foreign Exchange Management (Manner of Receipt and Payment) Regulations, 2016 for the mode of payment for imports. A reading of these regulations suggests that it may only be possible to engage in such transactions using fiat currency. The purchase of crypto by individuals may also be subjected to RBI's Liberalised Remittance Scheme (LRS).[164] Export of goods under FEMA could be said to be subject to the Foreign Exchange Management (Export of Goods and Services) Regulations 2015 and the RBI's Master Directions on Export of Goods and Services.[165]

Table 2: Regulatory Overview for Crypto as a Commodity in India	
Inquiry	**Discussion**
What are the tax implications? What entities are involved?	If crypto is regulated as a commodity, it can be subjected to: **GST** Crypto may be subjected to both the Central Goods and Services Tax Act, 2017; the Integrated Goods and Services Tax Act, 2017 and state GST laws. Crypto may fall under the residuary category of goods under the Tariff Schedule for Goods. It is unlikely that customs duties under IGST would apply to crypto, since customs duties apply to tangible goods only. However, sale of crypto as a hobby (as opposed to services provided by exchanges) and sale where crypto was initially held as an investment may not attract GST.[166]
What are the gaps and risks of classifying crypto assets as commodities? Where is governance tricky or hurting innovation?	Difficulty in classification as a commodity derivative: A SEBI FAQ document[167] states that notified commodities must meet certain criteria – such as having a relatively large demand and supply, capability of standardisation and gradation, adequate volatility and some others. While some crypto assets may meet this criteria, all will not. • **Tax:** Double taxation issues may arise. Consumers pay GST while purchasing crypto assets, and again on their use in exchange for other goods and services subjected to GST. There is no clarity on the applicability of equalisation levy to crypto either. It is possible to view crypto exchanges as “e-commerce operators”, and contend that the levy should apply on crypto they help supply to residents in India.[168]

Summary Box 3 - Crypto Assets as Capital Assets in India

If the government does not classify crypto assets as securities or commodities, they may be broadly classified as 'assets'. There is no specific law on exchanging assets but general laws on sale of goods will apply. This is because the Income Tax Act, 1961 defines 'assets' to mean any property barring exceptions listed under the Act. The Supreme Court has held that 'property' is a wide term that includes any interest that a person can hold or enjoy, barring specific exemptions that may arise from context. As there is no such carve-out for crypto assets under any law, we can consider them to be property, and by extension, an asset.

In such a scenario, the law would treat a crypto exchange like an e-commerce entity. Currently, there is no registration requirement except GST registration for indirect taxation purposes but a draft amendment to the Consumer Protection (E-Commerce) Rules, 2020 proposes a registration requirement for all e-commerce entities. Provision of a digital wallet or mobile wallet is also considered an e-commerce activity and it would attract KYC, AML and CFT compliances under RBI's Prepaid Payment Instruments (PPI) regulation. In short, this regulatory approach would attract both e-commerce regulation and PPI regulation and crypto exchanges would have to comply with the extant framework under both.

However, there are multiple challenges with adopting this route. First, the 2020 E-Commerce Rules require entities to obtain, publish and make information available on sellers on its platform. In case of crypto assets, it is onerous for the exchange to have information on whom they source the assets from. E-commerce entities comply with consumer protection requirements instead of investor protection requirements, which is inadequate in some ways but onerous in other ways. Further, there are also uncertainties regarding the application of the Foreign Exchange Management Act [FEMA] (which regulates foreign exchange and foreign trade) and tax implications (would be treated as any other digital product or service until the GST Council decides otherwise). Details are contained in Table 3.

Table 3: Regulatory Scenario for Crypto as a Capital Asset in India

Inquiry	Discussion
Can crypto be defined as an asset?	Section 2(14) of the Income Tax Act, 1961 (ITA) defines 'capital asset'. It includes property of any kind held by an assessee, whether connected with their business or profession.[169] The Income Tax Act carves a negative list of exceptions that would not fall within the definition of 'capital assets'.[170] Crypto assets fall within the definition of 'capital assets' under Section 2(14), if it can be proved that they are property. Property is a wide term and includes movable and immovable property; tangible and intangible assets, incorporeal rights. In Ahmed G.H. Ariff v. CWT,[171] the Supreme Court held that the term 'property' is a wide term and includes any interest which a person can clearly hold or enjoy, subject to any limitations that may arise from context. Interestingly, the Supreme Court was interpreting 'property' in the context of the term 'assets' when calculating wealth tax of an individual. The apex court held that there is no reason to restrict the definition of 'assets' beyond the exceptions provided in Section 2(e) of the erstwhile Wealth Tax Act, 1957.[172] The Court also held that the language used in the legislation clearly states that it includes property of every description. The framing is like the definition of 'capital assets' under Section 2(14) of the ITA. In conclusion, crypto assets can fall within the scope of the ITA, if (i) it is property of any kind; and (ii) it does not fall under any of the exceptions to Section 2(14) of ITA. Section 2(11) of the Income Tax Act, 1961 defines a 'block of assets' and distinguishes between 'tangible assets' and 'intangible assets'. Tangible assets include buildings, machinery, plant, or furniture. Intangible assets include know-how, patents, copyrights, trademarks, licenses, franchises, or any other business or commercial rights of similar nature. **Note 1:** In India, the Central Goods and Services Tax Act, 2017 (CGST Act) defines 'goods' to include every kind of moveable property except for money and securities. Crypto assets would fall within this definition of 'goods'. Rights on a crypto asset arise from the transfer of such moveable property from a crypto exchange to an investor/user. **Note 2:** In IAMAI v RBI (2020), the Supreme Court refers to several cases from the United Kingdom that hold that crypto assets are property.[173] Given that the legal system in India and the United Kingdom are common law systems, judgements in UK courts have persuasive value in India, especially with respect to understanding common terms such as 'property'. As a corollary, the activity performed by a crypto exchange could be classified as e-commerce, as defined under the Central Goods and Services Act, 2017,[174] if the government views crypto as a 'good' or a 'service'. The definition of 'e-commerce' also includes digital wallets and mobile wallets.

Table 3: Regulatory Scenario for Crypto as a Capital Asset in India	
Inquiry	**Discussion**
If crypto is defined as an asset what are the registration requirements for crypto exchanges?	If crypto is defined as a good or a service, the obligations on a crypto exchange would be like any e-commerce marketplace that trades in digital goods or services. India does not have a dedicated law for e-commerce marketplace regulators. However, the Consumer Protection (E-Commerce) Rules 2020 would be applicable to crypto exchanges. The Rules define an 'e-commerce entity' as any person who owns, operates or manages digital or electronic facility or platform for electronic commerce, but does not include a seller offering his goods or services for sale on a marketplace e-commerce entity.'[175] If crypto assets are defined as goods or services, then exchanges would fall within this definition. All e-commerce entities must be an incorporated company under the Companies Act, or a foreign company, or an office, branch, or agency controlled by a person resident in India[176] They also require a GST Registration. Currently, there is no registration requirement under the E-Commerce Rules but a proposed amendment to the Rules require e-commerce entities to register with the Department for Promotion of Industry and Internal Trade.[177]

Table 3: Regulatory Scenario for Crypto as a Capital Asset in India

Inquiry	Discussion
What are the compliance requirements for e-commerce entities?	As an e-commerce entity, several general laws on consumer protection and foreign investment would apply to crypto exchanges. They are listed below: Consumer Protection (E-commerce) Rules[178] • Appoint a nodal person of contact or an alternate senior designated functionary who is resident in India, to ensure compliance with the provisions of the Consumer Protection Act and E-Commerce Rules. • Clearly display basic information in a clear and accessible manner for users to view. • Shall not adopt any unfair trade practices in the course of its business or on the platform. • Appoint grievance redressal officer and grievance redressal mechanism. • If the marketplace trades in imported goods, name and details of the importer must be published on the platform. • Record consent to purchase only through affirmative or explicit consent by the consumer. • Effect repayments and refunds only through methods prescribed by the RBI or other competent authority. • Shall not manipulate prices or discriminate between like consumers or make arbitrary classification of consumers. • Comply with Section 79(2) and 79(3) of the Information Technology Act, 2000 and the Intermediary Guidelines to obtain 'intermediary liability' exemptions under Section 79(1). The Information Technology Act does not apply to transfer of immovable property (among others),[179] but crypto assets are movable property. • Ensure that content about goods or services on their platform is accurate and corresponds directly with the appearance, nature, quality, purpose and other general features of such good or service. • Publish full information on the grievance redressal mechanism in place. Foreign Direct Investment compliance Paragraph 5.2.15.2 of the Consolidated Foreign Direct Investment Policy 2020 contains Foreign Direct investment ("FDI") Regulations on e-commerce The policy distinguishes between an "Inventory based model of e-commerce" and "Market Place based model of e-commerce". An "Inventory based model of e-commerce" is an activity where inventory of goods and services is owned by the entity, and a "Market Place model of e-commerce" is an information technology platform by an entity on a digital and electronic network facilitate buying and selling. Besides these, e-commerce entities should also follow: • GST laws • Payment and Settlement Systems laws • IT Act and Rules

Table 3: Regulatory Scenario for Crypto as a Capital Asset in India	
Inquiry	**Discussion**
What are the KYC requirements for e-commerce entities? Which agencies can conduct such KYC? Are beneficiaries covered?	Crypto exchanges require users to transact using a payment instrument. Payment instruments and issuers of payment instruments are regulated entities, and the Reserve Bank of India (RBI) regulates them. These entities have to comply with KYC requirements as published by the RBI occasionally. Under the E-Commerce Consumer Protection Rules, e-commerce entities have to collect and publish information on the sellers on their platform. These are not KYC requirements, but what is referred to as 'Know your Business' obligations (although there is no such legal term). The requirements include: • Require sellers through an undertaking to ensure that descriptions, images, and other content about goods or services on their platform is correct and corresponds directly with the appearance, nature, quality, purpose, and other general features of such good or service. • Publish and display details about the sellers offering goods and services, including the name of their business, whether registered or not, their geographic address, customer care number, any rating or other aggregated feedback about such seller, and any other information necessary for enabling consumers to make informed decisions at the pre-purchase stage in a clear and accessible manner. Following a written request by a consumer after the purchase of any goods or services on its platform by such consumer, provide him with information regarding the seller from which such consumer has made such purchase, including the principal geographic address of its headquarters and all branches, name and details of its website, its email address and any other information necessary for communication with the seller for effective dispute resolution.
What are the investor protection and consumer protection requirements e-commerce entities must comply with?	The Consumer Protection Act, 2019 and all rules made thereunder and the Information Technology Act, 2000 and all rules made thereunder.

Table 3: Regulatory Scenario for Crypto as a Capital Asset in India	
Inquiry	**Discussion**
What are the AML requirements for e-commerce entities? What entities are involved?	There are no specific AML compliance requirements for e-commerce entities. They are subject to due diligence requirements under the IT Act and IL Guidelines and Consumer Protection (E-Commerce) Rules. The FDI Policy + FEMA(NDI) Rules would apply if there is foreign investment in the e-commerce entity. The Directorate of Enforcement (ED) conducts investigations under Foreign Exchange Management Act, 1999 (FEMA) and Prevention of Money Laundering Act, 2002 (PMLA). Such investigations are carried out as and when any credible information, including those relating to frauds committed by e-commerce companies, is received. Action under PMLA can be initiated in appropriate cases where a case of fraud by an e-commerce company is registered by some other Law Enforcement Agency.[180]

Table 3: Regulatory Scenario for Crypto as a Capital Asset in India	
Inquiry	**Discussion**
What are the foreign exchange management requirements for e-commerce entities?	The FDI policy allows investment in the marketplace model up to 100% without prior government approval and FDI is not permitted in inventory based model of e-commerce. Marketplace e-commerce entities have to comply with the following: • No direct ownership or control over the inventory. Ownership of inventory will make the inventory an inventory-based model.[181] • An entity having equity participation by e-commerce marketplace entity or its group companies or having control on its inventory by e-commerce marketplace entity or its group companies, will not be permitted to sell its products on the platform run by such marketplace entity. • E-commerce entities facilitating a marketplace will not directly or indirectly influence the sale price of goods or services and shall maintain level playing field The Foreign Exchange Management (Non-debt Instrument) Rules, 2019 also define an e-commerce entity and stipulate conditions it shall be subject to. Among other things, marketplace e-commerce entities with foreign investment must ensure that: • Goods/services made available for sale electronically on website shall clearly provide name, address, and other contact details of the seller. Post-sales delivery of goods to the customers and customer satisfaction shall be the responsibility of the seller. • Payments for sale may be facilitated by the entity in conformity with guidelines issued by the RBI. The Liberalised Remittance Scheme (LRS) of the RBI allows resident individuals to remit a certain amount of money during a financial year to another country for investment and expenditure. According to the prevailing regulations, resident individuals may remit up to USD 250,000 per financial year. This money can be used to pay expenses related to travelling (private or for business), medical treatment, studying, gifts and donations, maintenance of close relatives and so on. Apart from this, the remitted amount can also be invested in shares, debt instruments, and be used to buy immovable properties in overseas market. Individuals can also open, maintain and hold foreign currency accounts with banks outside India for carrying out transactions permitted under the scheme. However, LRS restricts buying and selling of foreign exchange abroad, or purchase of lottery tickets or sweep stakes, proscribed magazines and so on, or any items that are restricted under Schedule II of Foreign Exchange Management (Current Account Transactions) Rules, 2000. You also can't make remittances directly or indirectly to countries identified by the Financial Action Task Force as "non co-operative countries and territories".

Table 3: Regulatory Scenario for Crypto as a Capital Asset in India	
Inquiry	**Discussion**
What are the tax implications? What entities are involved?	As stated above, crypto assets may be taxed as 'capital assets' under the Income Tax Act, 1961. The CGST Act, 2017 defines e-commerce operators. The CGST Act requires e-commerce operators to register with the GST Authority of the State or Union Territory they are based out of.[182] Currently, they would be taxed at 18% like other digital products and services. However, this is something the GST Council can change. Further, the lack of a legal definition of 'crypto assets' makes it difficult to analyse the tax burden on crypto exchanges. Also, the Integrated Goods and Services Act, 2017 defines 'Online Information Database Access and Retrieval' (OIDAR) as "a service whose delivery is mediated by information technology over the internet or an electronic network and the nature of which renders their supply essentially automated involving minimal human intervention." Examples include supply of digital content such as books, movies, television shows, digital data storage, and other types of services that are automated through the internet. IGST also applies the 18% slab to supply of services by an Indian entity to an Indian recipient, but it is also possible to interpret that Bitcoin or Ethereum are the suppliers and crypto exchanges perform the rule of an intermediary. GST is a consumption tax so receipt of services in India makes it taxable under the GST regime. If the supplier is based out of India, then the intermediary would have to adhere to the GST regime.

Takeaway: Accommodating crypto assets under existing asset classes is problematic

- Similar to the international regulatory experience, the classification of crypto assets under existing financial asset/ classes pose their own challenges. If crypto assets are classified as securities or commodities under existing law, then the homegrown industry players will have difficulties accessing foreign capital investments because of the FDI cap.

- As the tables indicate, there is also uncertainty around whether crypto assets can be classified as securities or commodities. Even if the Government notifies crypto assets as either securities or commodities, several crypto assets may not meet the criteria to qualify as either of these asset classes, which could lead to litigation.

- Further, classification as a capital asset leaves several gaps. The Foreign Exchange Management Act differentiates between capital account transactions and current account transactions. Normally, capital account transactions create assets or liabilities (including contingent liabilities) while current account transactions are transactions that do not fall under the former and relate to living expenses and payments for goods and services. The rule is that capital account transactions are prohibited unless the RBI permits them, and current account transactions are permitted unless the RBI prohibits them. There is no clarity on whether purchase of crypto assets would be a capital account transaction or a current account transaction.

- Our understanding is that purchase of crypto assets creates an asset or liability and should be a capital account transaction, but the RBI has not expressly permitted such transactions. We could also argue that purchase of crypto assets are current account transactions as they could also be a method of payment for a service, or payment for business or trade.

- The identity of the issuer/supplier of crypto assets are unknown. This has several implications. From an e-commerce perspective, it would be difficult for the crypto exchange to provide information on the seller as required under the E-commerce Rules.

- Anonymity of the issuer also means that it is unclear if FEMA applies or not. For instance, it is not clear if a crypto exchange is sourcing crypto assets from Indian miners using Indian currency or from miners based abroad. Even for the purpose of taxation, it is important to identify place of supply.

Mapping the Institutional Landscape for Crypto Asset Oversight under Existing Indian Law

THE PURPOSE OF this section is to provide an overview of the public institutions that would oversee different aspects of crypto governance if crypto assets were classified under asset classes currently recognised and defined under Indian law.

1. Institutions that will Oversee Crypto if Classified as a Commodity/Security

1.1 KYC and Transparency

KYC is carried out through KYC Registered Agencies (KRAs) under the SEBI {KYC (Know Your Client) Registration Agency (KRA)} Regulations, 2011. SEBI has also issued Guidelines[183] for intermediaries and KRAs regarding the 2011 Regulations, to ensure their effective implementation. As per the Guidelines, SEBI-registered intermediaries are required to perform the initial KYC and upload details on the system of the KRA, following which all other registered intermediaries using its services will be able to access the information while dealing with the client. KRAs registered with SEBI[184] are:

- Cams Investor Services Private Limited
- CSDL Ventures Ltd.
- DotEx International Limited
- NSDL Database Management Limited
- Karvy Data Management Services Limited
-

System audit of members:

A 2013 SEBI circular[185] contains a stockbroker audit framework and makes it mandatory for stock exchanges to conduct a system audit of their members. The 2013 circular stated that stock exchanges must keep track of the findings of their system audits on a quarterly basis and ensure that key audit findings are complied with/rectified in a time-bound manner and report non-compliances of system auditors, broker-wise, to SEBI. A 2016 SEBI circular[186] extended this mechanism to commodity derivative exchanges as well.

As per SEBI,[187] the auditor is required to have a minimum of three years' experience in IT audit of commodities/securities market participants and have experience in all relevant areas mentioned in the Terms of Reference (ToR) issued by the exchange/regulator. They must not have any conflict of interest.

Forensic auditors can be appointed by the Board of the exchange concerned and be from the private sector. For example, in 2020, SEBI directed[188] the Board of the Indian Commodity Exchange (ICEX) to appoint an auditor to investigate a complaint on the misuse of its Liquidity Enhancement Scheme (LES) and finalise its terms of reference. The auditor appointed[189] was from the private sector.

1.2 Foreign Exchange Management Act, 1999 (FEMA)

Enforcement Directorate: The Enforcement Directorate (ED) is responsible for ensuring enforcement of FEMA. Policy aspects related to FEMA, its legislation and amendments fall within the purview of the Department of Economic Affairs, which is under the Ministry of Finance. Sections 13 and 13A of the FEMA imposes financial penalties for contravention of rules, regulations, notifications, directions and orders issued under the Act. The FEMA Act gives the Director of Enforcement and other officers (not below the rank of Assistant Director) the power to investigate any contravention of Section 13.[190,191] Once the AA has conducted an inquiry and is convinced that a contravention of law has taken place, it can impose penalties as per provisions of FEMA.

An appeal from the AA's order can be made to the Special Director (Appeals) appointed under FEMA, provided that the order in question was made by an Assistant or Deputy Director of Enforcement.[192] If the officers of the AA are senior to the Assistant or Deputy Director of Enforcement, an appeal lies to the Appellate Tribunal under FEMA. Orders passed by the Special Director (Appeals) can also be challenged before the Appellate Tribunal.[193] The Appellate Tribunal In turn, orders of the Appellate Tribunal can be appealed before the High Court concerned.[194]

Under FEMA, the Appellate Tribunal is the same as the one constituted under the Smugglers and Foreign Exchange Manipulators (Forfeiture of Property) Act, 1976.[195] As per this enactment, the Appellate Tribunal consists of a Chairperson and such other members as the central government thinks fit. The Chairperson of the Tribunal must be a person who is, has been or is qualified to be a Judge of the High Court or the Supreme Court. The other members are officers of the central government, not below the rank of Joint Secretary.[196]

Reserve Bank of India: FEMA states that unless a person acts in accordance with the Act or has been granted special permission by the RBI, they cannot deal in foreign exchange or security to someone who is not an authorised person. They cannot make any payment to or for the credit of a person outside India; or receive such payment by order or on behalf of a person resident outside India (unless it is from an authorised person). The Act also gives RBI the power to make regulations under the Act, providing for the permissible classes of capital account transactions, limits of admitting foreign exchange for them and repatriation of foreign exchange, among others.[197] Thus, while RBI is responsible for the overall administration of the Act, the ED is responsible for investigation and enforcement.

1.3 Anti-Money Laundering (AML) and Counter-Terror Financing (CTF)

As per the provisions of the Prevention of Money Laundering Act, 2002 (PMLA), intermediaries registered under Section 12 of the Securities and Exchange Board of India (SEBI) Act 1992 are required to maintain a record of transactions[198] prescribed in the Rules framed under the PMLA. Under a 2013 amendment to the PMLA, commodity exchanges and their members were brought under the ambit of the Act.[199] The amendment included "an association recognised or registered under the Forward Contracts (Regulation) Act, 1952 or any member of such association" under the definition of an intermediary under PMLA.[200]

SEBI: SEBI's Guidelines for Anti-Money Laundering Measures[201] (aimed primarily at intermediaries in the securities market) outline detailed procedures that registered intermediaries must follow to prevent money laundering and terror financing. They are meant to set out steps that registered intermediaries can take to discourage such activities. The Guidelines caution against a one-size-fits-all approach, stating that intermediaries must consider the nature of its business, organisational structure, and type of customers, when implementing the measures. They say that the overriding principle is that intermediaries must strive to comply with the measures and requirements laid down under the PMLA.

The Guidelines say that registered intermediaries must issue a statement of policies and procedures for dealing with these issues, keeping in mind statutory and regulatory requirements and regularly review them. They also state that customer acceptance procedures and customer due diligence must be sensitive to money laundering and terror financing. The Guidelines emphasise a risk-based approach to customer due diligence – and suggest that enhanced due diligence processes be adopted for higher risk category of customers. A 2019 amendment to the PMLA introduced more stringent obligations for reporting entities.[202] For example, the newly introduced Section 12AA requires them to authenticate clients engaging in specified transactions. Among other things, the reporting entity must now examine a client's ownership, source of funds and financial position before each transaction is commenced. The information that the reporting entity obtains by following due diligence measures under Section 12AA must be maintained for five years.

Enforcement Directorate: The ED is responsible for investigating and prosecuting offences of money laundering under the PMLA. Policy issues pertaining to PMLA fall under the ambit of the Department of Revenue, which is under the Ministry of Finance. The amendment to the PMLA in 2018 inserted Section 66(2),[203] which makes it mandatory for ED to share information with other concerned agencies, in compliance with FATF obligations.[204] As per the PMLA, money laundering is defined as "any process or activity connected with the proceeds of crime

including its concealment, possession, acquisition or use and projecting or claiming it as untainted property."[205] As per a 2019 amendment to the PMLA includes property and assets created, derived or obtained through any criminal activity related to the scheduled offence, even if it is not under the PMLA.[206] This was done on the basis of observations of the Financial Action Task Force (FATF).[207] As per the Act, money laundering is an offence punishable with both imprisonment and fine.[208] PMLA defines property as "property or assets of every description, whether corporeal or incorporeal, movable or immovable, tangible or intangible and includes deeds and instruments evidencing title to, or interest in, such property or assets; wherever located."[209] Thus, PMLA can apply regardless of whether crypto is considered to be a commodity or a security. PMLA allows the ED to provisionally attach a property, if there is reason to believe that (i) a person is in possession of proceeds of crime and (ii) that these may be concealed, transferred or dealt with in a manner that frustrates their confiscation.[210] The ED can also arrest a person if the material in its possession causes it to believe that a person is guilty of an offence under PMLA.[211] Once this property has been provisionally attached, the Director or other concerned officer must file a complaint before the Adjudicating Authority (AA) under PMLA stating the facts of the attachment.[212] The AA is appointed by the central government and consists of a Chairperson and two other members. At least one of the members must have experience in the fields of law, administration, finance, or accountancy. For a member to be considered as having experience in law, it may be sufficient for them to qualify to be appointed as District Judges.[213] After receiving a complaint under Section 5(5) or an application from the authority for retention of records or property seized under Section 17(4) or Section 18(10), if the AA believes that an offence under Section 3 of the Act has been committed, it may serve notice on the person concerned and record its findings. If the AA determines that a property is involved in money laundering, it can pass an order confirming the attachment of the property or retention of records. This can continue during pendency of proceedings regarding a scheduled offence before a court and become final if the person concerned is found guilty of the offence.[214] When the confiscation order becomes final, the property vests with the central government.[215] The AA's order can be appealed before the Appellate Tribunal under PMLA. The Appellate Tribunal consists of a Chairperson and two other members appointed by the central government.[216] The Chairperson must be someone who is or has been a Judge of the Supreme Court or High Court. The other members can be current or former Judges of a High Court, or members from the executive, among others.[217] The orders of the Appellate Tribunal can be challenged before a High Court.[218]

Financial Intelligence Unit (FIU): The FIU is responsible for receiving and analysing information pertaining to suspicious financial transactions. In the context of anti-money laundering and terror financing, it is required to coordinate with and disseminate information to various law

enforcement agencies. It is an independent body that reports to the Economic Intelligence Council, at the helm of which is the Minister for Finance.

Inter-Ministerial Committee (IMC): By way of an amendment to the PMLA in 2019, Section 72A was introduced. This Section provides that the central government can constitute an Inter-Ministerial Committee (IMC) for coordination among the government, law enforcement agencies, the FIU and regulators. The IMC is meant to facilitate policy cooperation and coordination among all relevant authorities. It is also intended to enable consultation among the authorities and financial sector regarding anti-money laundering and terror-financing laws, rules, regulations, guidelines and the development of policies to address these.

1.4 Investor Protection

The Office of Investor Assistance and Education (OIAE) under SEBI receives investor grievances. For investor protection in securities, SEBI issued the SEBI (Investor Protection and Education Fund) Regulations, 2009.[219] For commodity derivative exchanges, it issued Comprehensive Guidelines[220] for an Investor Protection Fund, Investor Services Fund and related matters. The contours of the process for securities and commodity exchanges are broadly the same.

Grievances related to intermediaries are usually addressed by the entities concerned, with SEBI monitoring the process through periodic reports. Usually if investors are not satisfied with the response received, they can approach the concerned exchange. Exchanges have Investor Grievance Redressal Committee and Regional Investor Grievance Redressal Committee (GRCs), which can act as mediators. If the investor is not satisfied with the response of the GRC, they can avail the arbitration mechanism under the by-laws and regulations of the exchange concerned. Arbitrators under this mechanism are independent experts. If the investor is not satisfied with the arbitral award, they can avail of appellate arbitration. This order can, in turn, be appealed before a court of competent jurisdiction under Section 34 of the Arbitration and Conciliation Act, 2015.

Figure 14: Institution Map for Crypto as a Security/Commodity

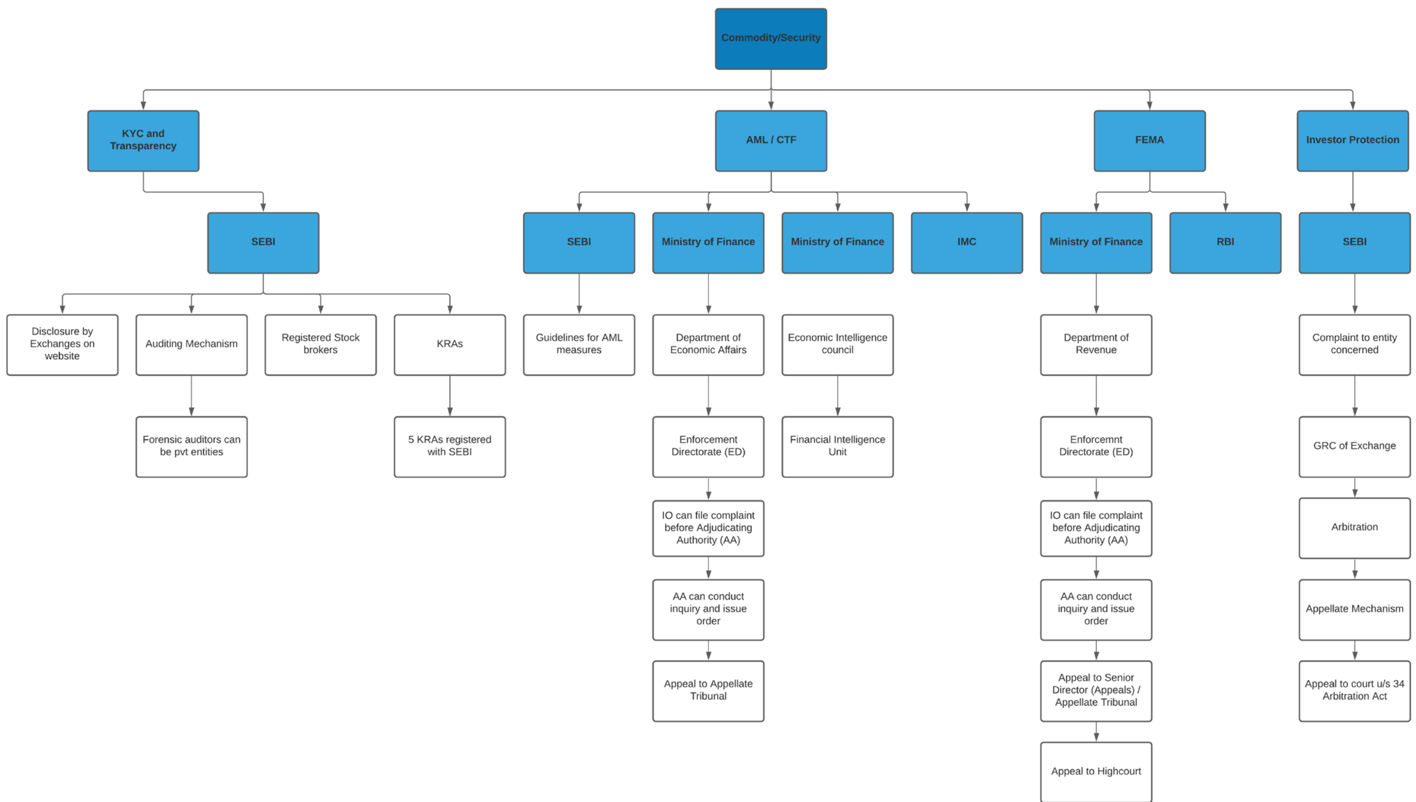
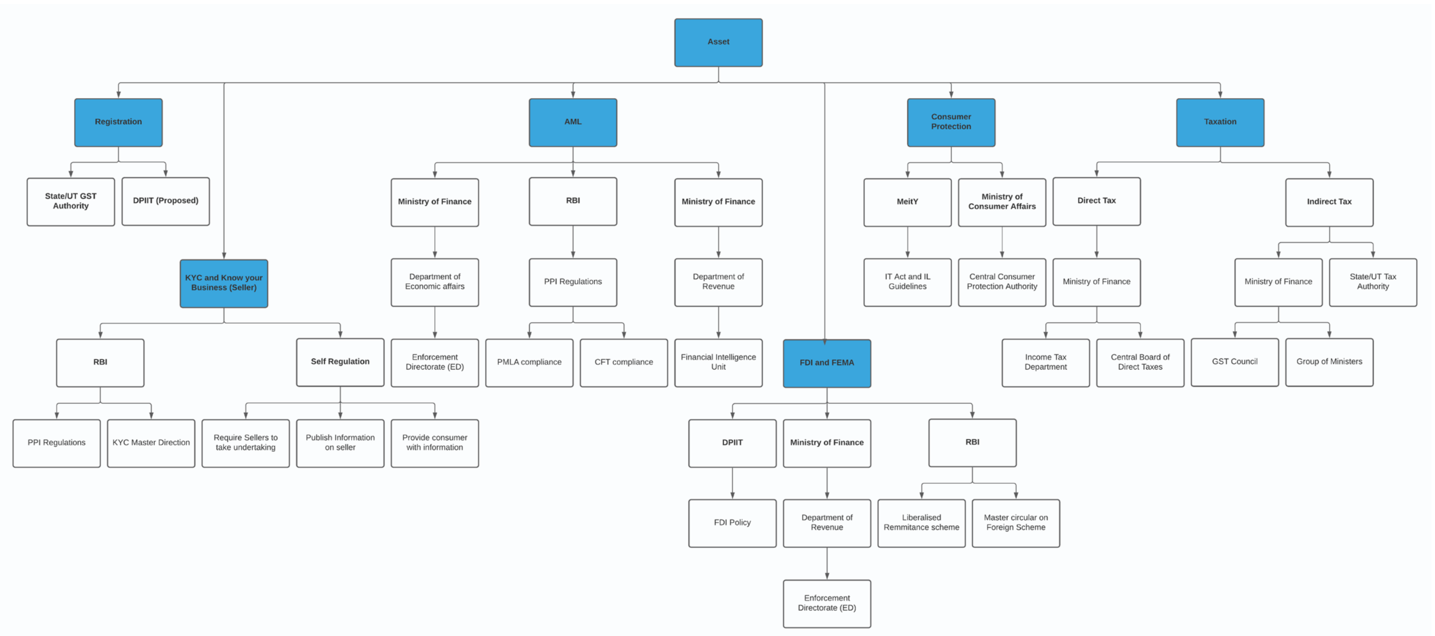


Figure 15: Institution Map for Crypto Oversight if Classified as an Asset



2. Institutions that will Oversee Crypto if Classified as an Asset

2.1 Registration

Under Section 24 of the CGST Act, 2017, e-commerce entities must register on the online GST portal, submit the required forms, verify using Electronic Verification Code, and mention the states they operate in and the principal state of business, separately.

The Consumer Protection Act, 2019 and the Consumer Protection (E-Commerce) Rules, 2020 apply to e-commerce entities. Currently, there is no registration requirement, but a 2021 draft amendment to the E-Commerce Rules propose that e-commerce entities should register with the Department for Promotion of Industry and Internal Trade (DPIIT) under the new Rule 4.[221]

2.2 Know Your Customer and Know Your Business

Crypto exchanges create digital wallets on behalf of customers. Provision of digital entities fall within the definition of e-commerce and the RBI regulates Prepaid Payment Instruments (PPI). Under the Master Direction on Issuance and Operation of Prepaid Payment Instruments,[222] PPI issuers must follow RBI's Master Direction – Know Your Customer (KYC) Directions.[223]

Rule 5 of the E-Commerce Rules, 2020 requires entities to collect and make available information on the seller/supplier. In case of crypto exchanges, this would mean that exchanges should obtain an undertaking, publish information, and make information available on request from the crypto assets available on the platform (crypto exchange).

2.3 AML/CFT

Crypto exchanges create digital wallets on behalf of customers. Provision of digital entities fall within the definition of e-commerce and the RBI regulates Prepaid Payment Instruments (PPI). Under the Master Direction on Issuance and Operation of Prepaid Payment Instruments, PPI issuers must adopt necessary mechanisms to follow provisions of the Prevention of Money Laundering Act, 2002 (PMLA) and Rules under it.

The RBI's Master Direction also requires entities that issue PPIs to maintain a log of all the transactions undertaken using the PPIs for at least ten years. The data should be made available for the RBI or any other agency, as directed by the RBI. PPI issuers shall also file Suspicious Transaction Reports (STRs) to Financial Intelligence Unit-India (FIU-IND).[224]

There are no specific AML compliance requirements for e-commerce entities if they do not issue PPIs. They are subject to due diligence requirements under the Information Technology Act and the Intermediary Guidelines, and Consumer Protection (E-Commerce) Rules.

Directorate of Enforcement (ED) conducts investigations under Foreign Exchange Management Act, 1999 (FEMA) and the PMLA. If the ED has credible information relating to frauds committed by e-commerce companies, they may initiate an investigation.[225] Other law enforcement agencies can also initiate proceedings under the PMLA in case of fraud by e-commerce companies.

2.4 FDI and FEMA

The FDI policy decided by the Department for Promotion of Industry and Internal Trade (DPIIT) allows investment in the marketplace model up to 100 percent without prior government approval and FDI is not permitted in inventory-based model of e-commerce. The FDI Policy also specifies certain requirements that e-commerce entities must follow. Among others, it specifies conditions on ownership or control of inventory, equity participation in e-commerce entities, and limits the influence that e-commerce entities may have on pricing of good/services on their platform.

The Liberalised Remittance Scheme (LRS) of the RBI allows resident individuals to remit a certain amount of money during a financial year to another country for investment and expenditure.[226]

2.5 Consumer Protection

E-commerce entities must follow several requirements listed under the 2020 E-Commerce Rules. The Ministry of Consumer Affairs is the ministry in charge of administering the Consumer Protection Act, 2019. The 2019 Act establishes a Central Consumer Protection Authority (CCPA) under Section 10 and a National Consumer Disputes Redressal Commission under Section 52 of the Act. The 2020 E-Commerce Rules is a specific legislation applicable to all e-commerce entities, but the Consumer Protection Act also applies to e-commerce operators.

Under Rule 4 of the 2020 Rules, e-commerce entities must institutionalise a grievance redressal mechanism, publish information on the seller/supplier, effect repayments and refunds according to RBI Regulations, comply with due diligence requirements under the IT Act and IL Guidelines, refrain from unfair trade practices and price manipulation and ensure accuracy of information made available by the e-commerce entity.

The Information Technology Act administered by the Ministry of Electronics and Information Technology (MeitY) state that e-commerce entities must comply with Section 79(2) and 79(3) and the 2011 Intermediary Guidelines to avail liability exemptions applicable to intermediaries under Section 79(1) of the IT Act.

2.6 Taxation

From a direct tax perspective, crypto assets would be taxable as 'capital assets' defined under Section 2(14) of the Income Tax Act, 1961. The Income Tax department under the Ministry of Finance and the Central Board of Direct Taxes take up matters related to direct tax. From an indirect tax perspective, the CGST Act requires e-commerce operators to register on the online portal. Currently, they would be taxed at 18% like other digital products and services. However, the GST Council could take up taxation of crypto assets as a specific issue and identify a taxation mechanism and tax rate slab for crypto assets.

Takeaway from the Analysis of the Institutional Landscape for Crypto Asset Oversight under Existing Indian Law

- The institutional framework for securities/commodities seems most appropriate for the oversight of crypto assets. SEBI and its allied institutions have mechanisms in place to address concerns around KYC, AML, FEMA, and investor protection.

- Regulating under SEBI would allow for easier coordination and communication between the different bodies addressing policy concerns. However, given SEBI's capacity constraints, it may be advisable to consider a joint regulatory effort which is further discussed in the next section.

- If the SEBI institutional apparatus is brought in to regulate crypto assets in India, the existing structure will require some modifications to accommodate and integrate with crypto asset platforms.

- The institutional framework for capital assets must be streamlined. There are too many disconnected regulators that have oversight.

Recommendations

CRYPTO ASSETS CAN be classified under existing asset classes that are covered by regulatory regimes in Indian law. However, this analysis reveals that none of these frameworks suitably accommodates the industry in a way that will allow innovation to flourish. If crypto is classified as a security or a commodity, there are FDI restrictions that will restrict capital inflows to Indian crypto businesses. If they are classified as capital assets, crypto issuers could be hit by the FDI restrictions for inventory-led digital e-commerce. Further, there are limited AML protections for standalone capital assets and other classes of intangible property.

Globally, trends are moving towards more crypto assets-specific laws to accommodate the nuances of the crypto industry, mitigate friction with legacy frameworks, and address gaps that these frameworks leave. As this report has highlighted, for example, the EU is bringing out the MICA framework to address such problems. The experience of the US and the UK illustrate that the entire crypto economy does not fit neatly into one regulatory regime, which has led to a lack of certainty and clarity which could be problematic for the development of the industry. As far as best practice goes, Japan's strategy to move forward with self-regulation is sensible, as it helps plug gaps in state capacity regarding technical understanding around the crypto-economy.

With these international and domestic contexts in mind, this report recommends that India regulate digital assets under a separate framework that has the following fundamental characteristics that are broadly in keeping with international consensus on the crypto-industry.

a. Technology neutral. So that it accommodates the evolution of the crypto industry which is still in its infancy.

b. Innovation-friendly. It should emphasise technological solutions for compliance in tandem with streamlined processes to ensure there are no barriers to entry for crypto-asset start-ups.

c. Consistent. The framework should be consistently applicable to all digital assets including crypto versions of traditional financial assets. This will help ensure a level playing field.

d. Emphasises investor protection.

e. Targets financial crime.

Crypto assets are a cross-border phenomenon and are strategically significant to most countries in the world from the lens of both economy and security. Given that multilateral digital governance is witnessing a resurgence,[227] it is likely that there will be an international treaty or instrument overseeing crypto asset governance in the near future. It would be pragmatic for India to bring out a framework that works in harmony or improves upon the approach deployed in other jurisdictions. The introduction of a progressive framework that balances innovation and entrepreneurship with public policy concerns such as money laundering and tax evasion, would put India in a position to lead conversations on a global governance regime for the crypto economy.

1. Definition

The first step towards a new framework is the creation of a definition. As seen in most attempts at accommodating crypto assets within the definitions for existing asset classes, this approach creates the problem of leaving out certain assets that do not meet the conceptual definition both internationally, and in India fall short of accommodating the breadth of digital assets available. The absence of definitional clarity in the United States, for instance, has triggered the involvement of multiple regulators in the country and opened them up to possibly onerous licensing requirements under different state money transmitter laws.

As such, we propose the following definition:

A digital asset means an asset that is created and conveyed using any distributed ledger technology and is not legal tender and may be used as a representation and/or of value, means of exchange, or a unit of account or be representative of financial interest and rights.[228]

The proposed definition is wide enough to accommodate the different sub-classes of assets in the crypto economy that currently exist and may arise in the future. The clarification regarding legal tender differentiates them from fiat currency, the issuance of which is a sovereign function of the State.

2. Regulatory Approach

As the previous section reveals, in terms of institutional structure, SEBI is best equipped to deal with the regulation of crypto assets. It is directly responsible or integrated with the institutional apparatus necessary to check the different regulatory concerns related to KYC, AML, FEMA and investor protection.

However, the 2016 National Stock Exchange (NSE) Colocation case highlights significant gaps SEBI's ability to regulate a technological paradigm. In the colocation case, the NSE was accused of granting unfair advantages to certain traders through technological mechanisms that enabled them early access to the exchange. A whistle blower brought the practice to SEBI's notice in 2015 and indicated that such unfair trading practices had been carrying on for years at the NSE. An expert committee formed by SEBI found that the NSE's data dissemination architecture was "prone to manipulation and market abuse".[229]

Given SEBI's capacity constraints, we recommend adopting a two-pronged co-regulatory approach. Co-regulation is a form of self-regulation where industry members and experts create codes and standards of conduct that are endorsed and guided by the regulator. The first prong would involve joint custody of supervision of crypto assets between SEBI, the RBI, and the Ministry of Finance. The coordinated approach between different agencies will also ensure the diverse policy concerns related to crypto assets are adequately addressed. These authorities, in consultation with law enforcement, can deliberate the regulatory concerns specific to them and the objectives they wish to achieve from any framework. These agencies can also consult with the various other agencies that may have jurisdiction over the particular use case of a crypto-asset or some aspect of its governance.

Once the SEBI, the RBI, and the Ministry of Finance are decided on their objectives, they can then work together with industry players to develop codes of conduct for the Indian crypto market, which are then implemented and enforced by industry associations. Industry must be tasked with the responsibility of oversight over its own activities. Exchanges and other crypto asset service providers are best placed to catch any suspicious activity on their platforms. As such, it makes sense to enable them to self-regulate while continuously reporting to the regulators. Any legislation brought out to institutionalise the regulatory paradigm recommended here must encompass a set of incentives for actors in the crypto market to act fairly and a strong set of disincentives against misconduct.

Thus, a co-regulatory approach, where industry devises and implements codes for oversight of the Indian crypto market which are affirmed and backed by the SEBI, the Ministry of Finance, and the RBI will mitigate policy concerns while also accounting for capacity constraints in these institutions. The approach takes a cue from Japan's decision to introduce self-regulation for the crypto-industry. A co-regulatory approach would better balance the need to preserve innovation and growth in the industry against larger public interest concerns.

3. KYC/Anti-Money Laundering

We recommend notifying crypto asset service providers as "Reporting Entities" under the Prevention of Money Laundering Act, 2002. Broadly, we have seen internationally that almost all nations have brought crypto asset businesses within the purview of their AML regimes. Our analysis indicates that the risk-based approach in the PMLA and the SEBI guidelines are suitable for the crypto industry. Under the co-regulatory approach highlighted above, industry and the regulator may consider introducing stipulations to bolster and upgrade reporting requirements, as well as establishing a more efficient and consistent mechanism for information sharing with the Financial Intelligence Unit and the Enforcement Directorate.

4. Investor Protection

Globally, regulators have focused on bringing in greater transparency and disclosure hygiene in the crypto-industry through the application of existing norms or the creation of new ones, as in the case of MICA's requirement for the publication of a whitepaper prior to token issuance.

In this context, the principles underpinning SEBI's investor protection framework are adequate for the crypto industry. These include:

- Investor Capacity Building
- Disclosure and Transparency-based regulation
    - Disclosure requirements for digital assets are quite distinct from existing financial instruments as the risks pertaining to them are wholly different.[230] In essence, information disclosures surrounding digital assets must be attuned to their relevant attributes and risks. These include security related risks relevant to the protocol. Disclosures must also seek to address market manipulation and fraud concerns which may, for instance, related personnel risks relevant to the development team, who end up holding a sizeable portion of initial tokens on a new network A good template for disclosures resides within the recently introduced Clarity for Digital Tokens Act which requires token issuers to make public disclosures about the ownership and rights of tokens by the team that develops them, token sales by members of the token development team, warnings about the risks of investment, platforms on which the token is traded etc.[231]
- Transaction safety – Many of the transaction safety mechanisms envisioned under SEBI are inherent to crypto-exchanges. For instance, settlements are immediate which renders the T+2 Rolling Settlement requirement redundant. Crypto assets are intangible assets. Thus, dematerialisation may not be applicable.
- A grievance redressal mechanism for investors that encompasses dispute resolution through arbitration.

5. Competitive Fairness

Certain regulatory interventions that espouse principles of competitive fairness may be brought in to enhance consumer convenience in the sector such as:

5.1 Interoperable Custodial Services and Exchanges for Crypto Assets

Currently, offline storage devices for crypto assets are non-standardised and non-interoperable. That means they only provide storage for a few crypto assets but are unable to accommodate others. Such fragmentation is inconvenient for consumers as it compels them to buy multiple storage devices to manage their portfolios. Inducting a measured regime of interoperability will enhance consumer convenience as it will make it possible for crypto assets owners to keep their crypto assets on fewer devices.

Additionally, to ensure fair competition in the marketplace for digital assets, crypto-exchanges should ensure they are able to support a wide range of digital assets on their platforms.

6. Safe Harbour for Crypto Asset Service Providers

We recommend bringing in a safe harbour such as the one provided under Section 79 of the Information Technology Act, 2000 for all crypto asset service providers. Safe harbours have proven very effective safeguards for innovation (many large technology companies have gotten to where they are because of them) over the years and are a lot easier to implement than regulatory sandboxes. Many of the world's big technology companies have scaled up on the back of safe harbours. If crypto asset markets form the basis for a better, safer, more valuable internet, it stands to reason that they should be afforded the same accommodations granted to existing internet intermediaries. Sandboxes can be hard to get right and cumbersome to enforce and demand significant regulatory capacity.[232] Crypto asset service providers should be insulated from liability from the activities carried out by investors on their platforms, provided that they carry out due diligence. In formulating a safe harbour for crypto asset service providers, necessary care should be taken to ensure that due diligence requirements to qualify for it should be germane to financial entities.

7. Tax

The international experience with crypto asset taxation reflects that most countries treat earning from these assets as capital gains. While earnings from crypto assets can be taxed as capital gains for investors and business income for exchanges, we strongly recommend against including a transaction tax for crypto assets as it will reduce the ability of small exchanges to compete and operate as a deterrent for crypto-investors. Such a position is taken by the CJEU as well as numerous European nations that have exempted crypto-businesses from VAT to encourage growth in the sector.

8. Regulation of Promotion of Crypto Assets

Advertisements are an important source of education and awareness for consumers. Moreover, in the crypto asset space, the opportunity to advertise incentivises crypto assets to invest in events hosted by educational institutions such as hackathons. Barring the ability of crypto asset service providers to advertise completely will not only harm consumers but also make it difficult for university cohorts interested in developing competencies around crypto assets to raise funds. In line with steps taken by the FCA in the UK, advertisements for crypto assets and businesses can be regulated by a framework similar to money market mutual funds as provided under the sixth schedule of the Mutual Fund Regulations.[233] This should include a prohibition on intentionally misleading promotional statements or advertisements.

9. Stable coins and FEMA

The ED has been actively summoning exchanges around possible FEMA violations involving stable coins.[234] The applicability of the FEMA to stable coins is questionable, given that they do not fit under the definition of 'currency' under the Act i.e., they are not a form of paper money nor have they been notified as a currency by the RBI.[235] However, given the rampant and arbitrary interventions from the ED, some clarification on FEMA may be in order. In this regard, we recommend that the RBI issue a notification that exchanges and other crypto asset service providers comply with the reporting requirements under the Foreign Exchange Management (Mode of Payment and Reporting of Non-Debt Instruments) Regulations, 2019. While entities dealing with foreign currency or exchange are required to get an authorised dealer license from the RBI, we recommend foregoing this step as it will serve as a duplication of effort as crypto asset service providers are already registering with SEBI. The reporting requirements will give the RBI insight into the volume of stable coins circulating in the country and enable them to adjust policy accordingly.

10. Security Standards for Exchanges

Given the hacks involving exchanges in the past,[236] we recommend working with industry to understand the feasibility of imposing thresholds for security of their accounts and holdings.

11. Work with industry to develop technological tools for compliance with regulatory norms

Large US crypto asset exchanges such as Coinbase are working with several institutional stakeholders to develop technological tools that help exchanges with AML/KYC compliance.[237] We recommend similar efforts be undertaken in India.

12. Tax Incentive for Whistleblower Entities

To further enhance enforcement capability and information gathering, the state may consider introducing tax incentives for entities that give relevant and verified information on any other crypto asset service provider that may be acting in contravention of any law in force at the time.

13. Prohibit listing of anonymity centric crypto assets

Certain crypto assets afford their holders complete anonymity by using “stealth signatures” to obfuscate transaction details. Such crypto assets should be prohibited from being listed.

Summary of Recommendations

1. Define crypto assets broadly to bring all assets under one framework which will help avoid jurisdictional clashes between different regulators. For this purpose, we recommend the following definition - *A crypto asset means an asset that is created and conveyed using any distributed ledger technology and is not legal tender and may not be used for payments within the Union and may be used as a representation and/or of value, means of exchange, or a unit of account or be representative of financial interest and rights.*

2. Adopt a co-regulatory approach where SEBI, the RBI, and the Ministry of Finance and a crypto asset service providers industry association work together to oversee and regulate the Indian crypto market. Industry experts can devise codes for oversight which are affirmed and backed by the SEBI, the RBI, and the Ministry of Finance, and implemented and enforced by an industry body.

3. Make crypto asset custody services and exchange interoperable to enhance consumer safety and convenience.

4. Introduce investor protection norms that are similar to SEBI's disclosure-based frameworks.

5. Notify crypto asset service providers as "Reporting Entities" under the Prevention of Money Laundering Act, 2002.

6. Introduce a safe harbour such as the one provided under Section 79 of the Information Technology Act, 2000 for all crypto asset service providers. Safe harbours have proven very effective safeguards for innovation (many large technology companies have gotten to where they are because of them) over the years and are a lot easier to implement than regulatory sandboxes. Many of the world's big technology companies have scaled up on the back of safe harbours. If crypto asset markets form

the basis for a better, safer, more valuable internet, it stands to reason that they should be afforded the same accommodations granted to existing internet intermediaries.

7. Tax income from crypto assets as capital gains. Avoid placing a transaction tax on exchanges.

8. Regulate crypto asset ads through a framework similar to money market mutual funds as provided under the sixth schedule of the Mutual Fund Regulation. Advertisements are an important source of education and awareness for consumers. Moreover, in the crypto asset space, the opportunity to advertise incentivises crypto assets to invest in events hosted by educational institutions such as hackathons. Barring the ability of crypto asset service providers to advertise completely will not only harm consumers but also make it difficult for university cohorts interested in developing competencies around crypto assets to raise funds.

9. To address FEMA concerns around stable coins, have exchanges and other crypto asset service providers comply with reporting requirements under the Foreign Exchange Management (Mode of Payment and Reporting of Non-Debt Instruments) Regulations, 2019.

10. Follow the lead of entities such as Coinbase and work with industry to develop technological tools for compliance with regulatory norms.

11. Establish minimum security standards for crypto asset service providers.

12. The state may consider introducing tax incentives for entities that give relevant and verified information on any other crypto asset service provider acting in contravention of the law.

13. Prohibit the listing of crypto assets that have no public address and consequently afford complete anonymity to holders.

About the Authors

Meghna Bal is a Fellow at the Esya Centre.

Shweta Venkatesan and Varun Ramdas are lawyers based in New Delhi.

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[152] The exchange must recruit special staff for this purpose, who can register the complaints and maintain them in the computer system of the Centre. The ISC official of the exchange concerned must redress grievances within 15 days. In case this does not take place, the grievance is escalated to the Grievance Redressal Committee (GRC), which has independent expert members. The GRC is to resolve complaints within 15 days. A party not satisfied with the order of the GRC can avail an arbitration mechanism, with an independent expert acting as arbitrator. The arbitrator must pass the arbitral award within four months. A party not satisfied with the arbitration award can avail of appellate arbitration, from an appellate arbitrator who is an independent expert. The appellate arbitral award must be passed in three months. A party aggrieved by the arbitral award or the appellate arbitral award can file an application to a court of competent jurisdiction under Section 34 of the Arbitration and Conciliation Act 1996.

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[155] The exchange must recruit special staff for this purpose, who can register the complaints and maintain them in the computer system of the Centre. The ISC official of the exchange concerned must redress grievances within 15 days. In case this does not take place, the grievance is escalated to the Grievance Redressal Committee (GRC), which has independent expert members. The GRC is to resolve complaints within 15 days. A party not satisfied with the order of the GRC can avail an arbitration mechanism, with an independent expert acting as arbitrator. The arbitrator must pass the arbitral award within four months. A party not satisfied with the arbitration award can avail of appellate arbitration, from an appellate arbitrator who is an independent expert. The appellate arbitral award must be passed in three months. A party aggrieved by the arbitral award or the appellate arbitral award can file an application to a court of competent jurisdiction under Section 34 of the Arbitration and Conciliation Act 1996.

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[157] Section 2(viii), Foreign Exchange Management (Export of Goods and Services) Regulations, 2015.

[158] See Tata Consultancy Services v State of Andhra Pradesh (Supreme Court of India November 5, 2004), https://indiankanoon.org/doc/153638/

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[162] Foreign Exchange Management (Current Account Transactions) Rules, 2000, https://rbidocs.rbi.org.in/rdocs/content/pdfs/87256.pdf

[163] Reserve Bank of India, "Master Direction – Import of Goods and Services", January 1, 2016. https://m.rbi.org.in/scripts/BS_ViewMasDirections.aspx?id=10201

[164] Reserve Bank of India, "Master Direction - Liberalised Remittance Scheme", January 1, 2016. https://www.rbi.org.in/Scripts/BS_ViewMasDirections.aspx?id=10192

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[169] Section 2(14), Income Tax Act, 1961.

[170] (i) stock-in-trade, consumables, or raw materials used in the course of business or profession; (ii) personal affects such as clothes and furniture; agricultural land; and (iii) bonds listed under the definition.

[171] Ahmed G.H. Ariff v. CWT (Supreme Court of India August 20, 1969) [1970] 76 ITR 471 (SC).

[172] The government abolished the Wealth Tax Act w.e.f. FY 2015-2016.

[173] Ahmed G.H. Ariff v. CWT (Supreme Court of India August 20, 1969) para 6.83.

[174] Section 2(44) of the CGST Act, 2017 defines 'e-commerce' to mean "electronic commerce" means the supply of goods or services or both, including digital products over digital or electronic network.

[175] Section 3(b), Consumer Protection (E-Commerce) Rules, 2020

[176] Section 4, Consumer Protection (E-Commerce) Rules, 2020

[177] Ministry of Consumer Affairs. Proposed Amendments to the Consumer Protection (E-Commerce) Rules, 2020 https://consumeraffairs.nic.in/sites/default/files/file-uploads/latestnews/Comments_eCommerce_Rules2020.pdf. See Section 4 of the proposed amendment.

[178] Sections 4 and 5, Consumer Protection (E-Commerce) Rules, 2020.

[179] Section 1(4) read with Schedule I of the Information Technology Act, 2000.

[180] Ministry of Finance. "Frauds Committed By E-Commerce," December 12, 2014. https://pib.gov.in/newsite/PrintRelease.aspx?relid=113267.

[181] Inventory of a vendor will be deemed to be controlled by e-commerce marketplace entity if more than 25% of purchases of such vendor are from the marketplace entity or its group companies.

[182] Section 24, Central Goods and Services Tax Act, 2017.

[183] "SEBI Circular MIRSD/Cir- 26 /2011 on Guidelines in pursuance of the SEBI KYC Registration Agency (KRA) Regulations, 2011 and for In-Person Verification (IPV)' (23 December 2011), https://www.cdslindia.com/downloads/Publications/Communique/SEBI%20Circular%20-Guidelines%20in%20pursuance%20of%20the%20SEBI%20KYC%20Registration%20Agency%20(KRA).pdf.

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[188] Sutanuka Ghosal and Ram Sahgal, 'SEBI Orders Forensic Audit of Indian Commodity Exchange', 26 April 2020, https://economictimes.indiatimes.com/markets/commodities/sebi-orderes-forensic-audit-of-indian-commodity-exchange/articleshow/75395844.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst.

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[191] Section 16, Foreign Exchange Management Act, 1999.

[192] Section 17(2), Foreign Exchange Management Act, 1999.

[193] Section 19(1), Foreign Exchange Management Act, 1999.

[194] Section 35, Foreign Exchange Management Act, 1999.

[195] Section 18, Foreign Exchange Management Act, 1999.

[196] Section 12(1), Smugglers and Foreign Exchange Manipulators (Forfeiture of Property) Act, 1976.

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[215] Section 9, Prevention of Money Laundering Act, 2002.

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THE INDIAN CRYPTO asset industry has witnessed exponential growth over the last five years and today, the country has 15 million crypto asset holders that have put in INR 6.6 billion in these crypto asset holdings. This report seeks to bring clarity around crypto assets as a technology and make recommendations for the regulation of the Indian crypto asset market. Like all financial assets, crypto assets pose certain policy risks that must be addressed through a coherent framework that balances the public interest with the need to encourage innovation. Towards this end, this report recommends the induction of a safe harbour for crypto assets, similar to the one inducted for internet intermediaries in the Information Technology Act, 2000 and the Copyright Act, 1957. If the crypto asset space presents the future of the internet, as many experts propound, it is imperative that the crypto industry be afforded the same legal succour that allowed big technology companies to reach where they are today.

Observer Research Foundation
20, Rouse Avenue Institutional Area
New Delhi - 110 002, INDIA
+91-11-35332000 Fax: +91-11-35332005
contactus@orfonline.org
www.orfonline.org

B-40 First Floor
Soami Nagar South
New Delhi - 110017, INDIA
+91-11-45630458
contact@esyacentre.org
www.esyacentre.org