

LEGITIMACY AND GOVERNANCE PERSPECTIVE: ADDRESSING SUSCEPTIBILITY OF CRYPTOCURRENCIES

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ABSTRACT

The dawn of digital economy has compelled the innovations at market place through increased power of disruption resulting in emergence of hub economy through multisided platforms. There has been sudden eruption of virtual currencies/crypto currencies; which are electronic money with no intrinsic worth and have caught the investor frenzy due to its transparency in ease of operations and it being out of any financial intermediation through decentralized governance and regulatory oversight. While the fiat currencies being a legal tender as being issued by sovereign country represents money backed by sovereign guarantee; the trend of crypto currencies is still in nascent phases for fulfilling the pecuniary considerations for completion of a commercial transaction. Whether such digital currencies which have the potential to create a new financial order can be allowed to circumvent the extant legislative framework controlling the monetary supply ignoring the dimensions relating to market integrity, investors and consumer protection and future of such decentralized governance; is a question which is grappling the regulatory authorities. The Article explores the need for regulatory oversight through national legal standards based on current jurisprudence as also for development of an international order for serenity in financial markets given wild swings in valuation of a virtual currency which is yet to forcefully emerge as a contender for being a legal tender.

Keywords: Crypto currency, fiat currency, decentralized governance, legal tender, legal standards, new financial order.

I. INTRODUCTION: DIGITAL TRANSFORMATION & IMPERATIVES

We are witnessing a transformational era which is manifested by innovations resulting out of technological disruptions which have changed the very landscape of the business ecosystem. As per the World Economic Forum Report, the current era is characterized by the integration of enhanced technological power and physical processes to lead to what has been stated to be fourth Industrial Revolutionⁱ with technology affecting the governments, businesses and civil society alike through an era of ‘virtualism’.

The virtual annihilation of conventional ‘brick and mortar economy’ is exemplified through the digital transformation which has disrupted the current market ecosystem with increase in the number of the unicorns (denoting privately held start-ups with a market capitalization of over USD one billion). This is demonstrated through the increase disruption of ‘multisided digital business platforms’ which now find a place amongst the top thirty brands by market capitalization demonstrating increasing power of digital revolution. The interface of ‘digital economy’ also known as ‘collaborative economy’ or a ‘shared economy’ is driving on the cumulative effect of enhanced power of internet, power of an idea and increased concentration of buyers and sellers on either side of the platform ‘through data’ which has been challenging the landscape of current form of extant ‘brick and mortar’ economy.

The rise of this hub economy has resulted in real-time transactions and has brought in newer mutative forms of business structures which hitherto were B2B (business to business) or B2C (business to customer). We now see newer formulations of business structures namely G2B (government to business) or C2B (customer to business) or C2C (customer to customer) which go beyond the very concept of an industrial organization envisaged by George Stigler.ⁱⁱ These business structures through digital transformation have resulted in a newer generation of entrepreneurs in conventional as well as neo-segments of goods and services.

II. CURRENCY AS THE ENABLER FOR EXCHANGE OF SUPERFLUITIES - DIFFERENTIATING BETWEEN THE FIAT CURRENCY AND VIRTUAL CURRENCY

The conventional brick and mortar economy largely witnessed the completion of monetary transactions through *Fiat currency*, a legal tender;ⁱⁱⁱ *paper money or coins*; *Representative money* through other financial instruments; like a letter of credit which is backed by the Fiat currency with such currency to be backed by a sovereign or a regulatory authority; and supply of which is controlled by the sovereign in respective financial jurisdiction. Still, Fiat currencies / representative money are the order of the day for financial consideration to completion of a transaction. This has been the phenomenon starting with yesteryears of human civilization when the consideration for trade started in the form of mere barter transactions to one evolved through cash transactions to a scenario of credit; the latter being backed by ‘money’ issued by sovereign as ‘fiat currency’ for completing of payment of consideration, completing the transaction of the exchange of superfluities.

In the current era, the interface of buyers and suppliers are taking place on a digital platform; the digital transformation has brought in a new landscape of virtual currencies/digital currencies on the radar as ‘digital assets. The emergence of host of virtual currencies / digital innovations; more popularly known as crypto-currencies as financial innovation is bringing to fore newer forms of digital mutations commensurate with digitization of business ecosystems bringing in a newer paradigm in the ‘value chain’ for ‘end to end’ completion of the transaction by providing for a newer avenue of consideration for completion of transactions. The emergence of these digital currencies has brought in ‘euphoria’ on one hand as also ‘skepticism’ as to the intrinsic value proposition of such virtual currencies when compared with Fiat currencies.

The Crypto currency is backed by an algorithm representing a medium of exchange outside the regulatory system and as different from a *Fiat currency* and is not a legal tender.^{iv} The commonality between the crypto currency and the Fiat currency ends with there being an equally a medium of storing and retrieving value of equivalent money and the value thereof is guided by demand and supply relationship.

Given the imperatives of augmenting and strengthening increased financial consumer protection in the emerging milieu wherein Cryptocurrencies are increasingly being seen as an asset class; the instant paper seeks to demystify the haziness around emergence and increased speculation around cryptocurrencies by addressing concerns regarding its legitimacy , arising out of it not being a fiat currency, its susceptibility to economic crime usage due to decentralized nature of governance

whereby sovereign states are unable to control such usage, issues of concentration in few hands, tenacity to cause disruptions in conventional financial and monetary space, lack of regulatory oversight and alike. The paper endeavors to address the following objectives:

1. Whether cryptocurrencies are creating a new financial order and their impact on existing financial and monetary market space.
2. Whether sovereign states have developed resilient regulatory and oversight framework to mitigate any risk perception arising out of its decentralized governance to financial and resultant governance space.
3. Impact of cryptocurrencies on framework of financial, consumer protection framework *inter alia* addressing issues of transparency and disclosure to deter economic crimes and addressing issues of overarching economic governance.
4. To examine the state of incipiency in terms of advocacy and lack of extent regulatory framework to govern cryptocurrencies and evolution of jurisprudence emerging through guidance from multilateral forums.
5. Addressing issues of market integrity, valuation and propensity for usage in proscribed activities.
6. Emerging '*corpus juris*' jurisdictionally in terms of its accounting treatment and its legitimacy or otherwise.
7. Learning context for India in terms of emerging legal standards globally in this complex arena.

III. EVOLUTION OF CRYPTO CURRENCIES

Starting 2009 changed the landscape of money; with a pseudo anonymous creator *Satoshi Nakamoto* to whom the invention of Bitcoin (most popularly known the form of crypto currency) protocol is being attributed; and since then began the journey of new asset class of digital currencies. As per an estimate, there are over 2000 types of crypto currencies are in circulation like Bitcoin, Ethereum, Lite coins and host of others.^v While there have been numerous other crypto currencies prior to Bitcoin; it is with the surge of Bitcoin that Crypto currencies came to limelight. It has been estimated that there are at least 500 crypto-currency private and public

exchanges globally; virtually acting as ‘decentralized banks out of the banking system with no intermediaries being present’ making it truly a field of numismatics.

Whether or not a plausible argument for eruption of crypto-currency can be linked to the US financial market failure of 2008 which brought with it serious questions on the strengths of the financial institutions with depletion of money supply; the catapulting of crypto currencies; whether it was an outcome of failure of extant financial institutions to provide money supply in the aftermath of the Great financial crisis; is a question for which we have the benefit of hindsight before making any conclusive assertions. ^{vi}

The crypto currencies are supported by two distinct innovations namely the advent of distributed ledgers through blockchain wherein transactional data is shared across multiple users through computers; operation through *Peer to Peer (P2P)* mechanism and *decentralized nature of governance* without any regulatory intermediation/oversight which have been responsible for the widespread usage of crypto currencies. The emergence of the digital economy has transformed to provide for a virtual new financial order challenging the conventional monetary market. ^{vii}

It is still naive to say that we are entering into a new domain of financial order wherein the traditional bookkeeping and ledgers retained by the financial institutions is paving way for a decentralized mode wherein the regulatory central bank authority has no role on such virtual currencies.

IV. DEMYSTIFYING THE FRAMEWORK OF CRYPTO CURRENCIES

The era of crypto currency operations is facilitated through distributed ledgers by use of blockchain technology enabling each member of the network to validate its part of the transactions through tokens which can be seen by all on the network and cannot be altered through combination of public and private keys resulting in enhanced levels of trust, transparency and increased traceability of transactions. ^{viii}The uniqueness of blockchain technology lies in its capacity to endorse the ‘ownership of assets’ with unique traceability for effecting the completion of transaction through the electronic transfer. Such transaction does not involve any banking channel intermediary as an outfit of regulatory setup, and; therefore, builds as a trustless system; it operates

upon the trust in the mathematical and electronic algorithm which serves behind the architecture of crypto currencies transfers and creating a trust that an agreement will be executed.^{ix}

The crypto currencies flow digitally over a blockchain enabled by cryptography which allows for embedding the features of security in the automated protocol allowing for control by the exchange for its creation, mining and over the transactions taken place by providing the user a personal wallet for buying and selling and holding the crypto currency. The computer algorithm primarily develops as a *hash* (signifying a variable input, fixed output, and high computability) on grounds of distinguishing between two inputs leading to the same output (collision resistance), and is coupled with properties of hiding to build up the security features through a blockchain which is immutable.^x The enabling anonymity in crypto currency transactions is built through the mathematical algorithm and the holding is irretrievable if the same is lost or stolen.

A study by the World Bank has highlighted the crypto currencies to be a multi-billion dollar industry and with the price of the largest trading crypto currencies mainly Bitcoin soaring from few cents in 2009 to over US Dollar 15,000 in 2017; it created a euphoria in the trading markets with most making a beeline for getting into a concentrated market of only 21 million Bitcoins mined so far.^{xi} What has been more discernible is the unfair valuations of crypto currency which rather than being guided by the concept of '*fair valuation*' are being driven by trading sentiments thus partaking the character of an asset bubble leading to wide fluctuations in their valuations.

It is really intriguing that the most established crypto currency namely Bitcoin has only 21 million coins with 40% of the currency being held by 1000 users (rightly termed as whales who more than often act in collusion^{xii} resulting in manipulations all-around and with demands far exceeding supply; it did reflect a secular uptrend for the most part of 2017 before correcting itself in the later part of 2017 and early part of 2018.^{xiii} Though the prices have flattened to merely USD 4200 now; it still excites the imagination of speculators for indulging in transactions for easy money. There have been ambivalent statements on the crypto currencies with one school of thoughts comparing it to a bubble/scam and another school of thought linking into to having the potential to replace the supply of currency and money.

A weekly chart of trading for January 2018 by CoinMarket Cap highlights that conversions of US dollar 32.41 billion and US dollar 8.52 billion took place for conversions from Bitcoin to *Fiat currencies* and Bitcoin to other crypto currencies respectively.^{xiv} Further the market capitalization

of five major crypto currencies namely Bitcoin, XRP, Ethereum, Stellar and Teether; despite the steep fall in valuations since July 2018 stands at staggering USD 85 billion approximately far exceeding the valuations of 'brick and mortar businesses' represented in companies listed at S&P 500 index numbers.^{xv} A research points out that during 2011-13; there were three major bubbles having cascading effect on the valuation of crypto currencies which lasted from 2-3 months and with the extensive amount of crypto currency in circulation; it makes the potential tricksters to invade the market as they have a high leverage of reward to risk ratio to operate upon.^{xvi}

The wobbliness in the valuations of the crypto currency is the major scourge to financial stability resulting in turbulence in valuation to digital currency markets. While the crypto currency transactions have been the subject matter of scrutiny in majority of evolved jurisdictions; it is primarily on account of absence of a legislative framework dealing with the virtual currencies through the peer to peer (P2P) platforms as also varying nature of regulatory responses by different sovereign jurisdictions given the perils associated with such anonymous transactions becoming potential hotspot for an ill-gotten parallel economy.

When Aristotle pointed out four virtues of good money classifying it further to its parameters of *fungibility, portability, divisibility and its intrinsic value*; possibly his conception of money was merely confined such money to serve the role of an equalizer in a commercial transaction relating to an exchange of superfluities to satisfy human wants and needs.^{xvii} Whether or not the virtual currency which is evolving in differing propositions across jurisdiction meets the classification as laid out by Aristotle is yet to be seen. Virtually all jurisdictions while seeing the potential of blockchain technology; for monitoring of government administered programs are cryptic of the crypto currencies.

As another research points out; the evidence of abuse of money becomes prominent when it starts traversing into speculative markets as in real estate and other asset bubbles as also money being used to make money without any linkage to the production and consumption chain of any goods or services. The digital currency has the tenacity to effectuate transactions beyond being the financial consideration for ending and completing a transaction to areas such as speculative markets, rechanneling the crypto currency for making more money.^{xviii}

While this *per se* not being illegitimate; opens up the vistas for potential channelization of such virtual currency for money laundering and other organized crimes. Whether going forward such

virtual currencies which operate as ‘scrips’ as an avenue for wealth creation; with requisite purchasing power will be able to position themselves as a valid ‘legal tender’ and getting expected as a credible ‘alternate payment mechanism’ is something which is yet to fully evolve across the globe in view of the *Peer To Peer (P2P)* nature of transactions in jurisdictions which are not recognizing it as a legal tender. This apart the crypto currencies not under the state regulations directly it makes possible to be used for money-laundering and other economic crimes

V. GUIDANCE FROM THE GLOBAL ADVOCACY FORUMS

Recognizing the potential threats to global stability through the likely menace of such anonymous currencies through their not being part of any regulatory oversight; such crypto currencies transactions taking place without any financial intermediations; the Financial Action Task Force (FATF) under the joint World Bank and International Monetary Fund, Financial Sector Assessment Program has come out with Guidance on Virtual Currencies.^{xix} This comes as a sequel to other two Reports issued in 2013 and 2014 on potential Anti-Money Laundering (AML)/Combating Financing of Terrorism (CFT) risks and Guidance on the potential of AML/CFT Risks and a Risk-based approach to prepaid cards, mobile payments, and internet-based payment services.^{xx}

The FATF Report inter alia addresses the issue of an interface of innovations like crypto currencies with DNFBP (designated non-financial professional businesses and financial institutions) in regard to AML/ CFT risks. The Guidance suggests for enhanced focus on *know your customer* guidelines (leading to customer identification) and creation of new technologies to track the transactions for verification and monitoring including third-party digital identity system. Given the global nature of operations of crypto currency market and the propensity of the blockchain to be the next revolution; Organization of Economic Cooperation and Development (OECD), an intergovernmental organization with 34 member countries has called for international engagement on crypto currencies for enhanced consumer and investor protection for better market integrity for protection the consumers from cyber-crimes in cryptocurrency operations.^{xxi}

Highlighting the Bitcoin as ‘a trustless payment system’, OECD highlights that a crypto currency can never become a legal tender as taxes cannot be paid by using Bitcoins. Further, in its paper ‘the Bitcoin question: Currency versus Trust Less Transfer Technology’; OECD has indicated that Bitcoin being volatile; also suffers from scalability issues which serve as a tool for it to

indulge into illegal activities.^{xxii} At the OECD blockchain policy Forum held in September 2018, 57% of the responses indicated their perceptual bias indicating that 1 to 25% of the Bitcoin transactions are used for illegal activities whereas 17% of the participants indicated this percentage to vary from 25 to 50%. It was eventually made out that only 13% of the responses were correct which resulted in less than 1% of Bitcoin transactions getting diverted to illegal activities highlighting increased divergences between reality and the perception.^{xxiii}

The said argument by OECD has been contested by the crypto currency operators by highlighting that the reason for the operation of crypto currencies was not to operate as a parallel to the monetary market. A contrary view has been argued in the paper wherein the rise of crypto currencies has been equated to bring the operation of such market outside the contours of money market operations by making it insulated from the governmental interferences/control resulting in such Fiat currencies being prone to inflation and in ultimate analysis the crypto currencies to lead to a future where no Governmental or Central Authority can guide what an individual can do with their money.^{xxiv}

The OECD along with Financial Stability Board (FSB) has brought out G20 Principles on Financial Consumer Protection^{xxv} which dwells on laws and regulations which are responsive to neo-technologies, the role of oversight bodies for financial consumer protection, increased disclosure and transparency requirements, mitigating fraud risks, privacy and data protection, competition and responsible business conduct. A Research highlights the need for eco-system of economic governance to keep the financial vulnerabilities at bay to mitigate instances of cyber and other economic crimes including money laundering.^{xxvi}

In another significant development, OECD in its paper 'Blockchain Technology and Competition Policy' has highlighted the need for crypto currencies backed by sovereign's legislation to curb the menace of tax avoidance and also better compliance with the other laws and regulations.^{xxvii} Highlighting the policy issues governing the crypto currency space, OECD has stressed the need for ban on any form of crypto currencies in the clearing system between the Banks and the Central Bank to avoid the relegation of the monetary policy and system and has inter alia suggested for backing of crypto currencies with some sort of security like gold. Incidentally, Venezuela has in place since 2017 Petro crypto currencies which are oil-backed.^{xxviii}

Further highlighting the need for a combination of both private and public blockchains; OECD has advocated for improving the capacity of the law-enforcement agencies to track the flow of money.^{xxxix} The OECD paper further highlights the need for bridging the divergences in fragmented regulatory approaches and plugging in scope for misuse of regulatory arbitrage by increased international consultation and cooperation which would result in developing best practices through plugging in of the loopholes.^{xxx}

A statement by the World Bank points out^{xxxi} the need to calibrate between the hype generated through blockchain enabling crypto currencies offering ‘end to end’ transactional services and determining the real value proportion of so called transformational technologies and for this; as has been propagated by OECD; the World Bank has also called for international coordination to develop and share best practices in regulating the decentralized architecture of blockchain technology which forms the backbone of crypto currencies. The World Bank report further highlights reconciling the existing ambiguities arising out of technological innovation before propagating ad-hoc regulatory interventions.

The World Bank in the Report^{xxxii} also advocates for innovation in the governmental policy space in-line with the corporate structure to keep pace with the technological innovation for arbitraging the benefits arising out of such innovations. The same report further predicts that the financial oversight is ultimately the order of the day including the era of crypto currencies through the emergence of blockchain technologies and the governmental policy space has to gear up to that extent to build up a strong ecosystem for addressing the otherwise resultant vulnerabilities through tax evasion, money laundering, illicit cross border flows, financial inclusion and anti-trust issues which otherwise will have a cascading effect on the financial market thus posing a myriad of risks to the governance eco-system.

VI. ISSUES GRAPPLING THE REGULATORS AS TO THE LEGITIMACY OF CRYPTO CURRENCIES

While the crypto currencies running on the blockchain technology have the potential to unleash financial inclusion on the positive side to improve upon the outcome-based approach, one has to

make a balancing act of examining and outweighing the potential risks attached in the usage of crypto currency.

a. Vulnerability to the monetary policy and financial systems.

Under the extant framework, in most of the countries, the crypto currencies like Bitcoin relegate the role of the central regulatory authorities to oblivion by totally bypassing them and therefore have the tenacity to render the existing financial order irrelevant as they are immune from the state regulation. Further, the sanctity of a Fiat currency which is driven by the inherent strength of the economy of each country and backed by sovereign guarantee; how the crypto currency which are more electronic coins with no intrinsic value and is not even recognized to be a legal tender; is also being debated.

b. Risk attached to crypto currency in absence of regulatory oversight.

The crypto currencies were not falling under the radar of financial regulation; can they be considered equivalent to ‘currency’ or ‘money’ and hence whether they can be legitimized as a recognized and a valid legal tender. A discussion paper has pointed that tethering crypto currency to fiat currencies, like US dollar, the limitations of crypto currencies with it not being supported by any contractual rights or guarantees against losses; and therefore, transparency and accountability parameters are not being adequately safeguarded.^{xxxiii}

While the case study was in the context of a specific currency named ‘Tether’ which in terms of global market capitalization is of USD 2 billion and is ranked 15 amongst peer crypto’s; the issues of lack of transparency and accountability remain all pervasive when compared with traditional fiat currencies. The paper highlights that as against the Fiat currencies covered by sovereign guarantee brings with its legal rights; the exchanges which provide for the trading/exchange of such crypto currencies are devoid of any regulatory framework.

c. Disruptive disruptions to market integrity.

While the crypto currencies move through digital /distributed ledgers, there has been a reflection on resultant vulnerability to the market integrity as a result of ‘decentralized governance model’ wherein it excludes the participation of intermediaries from the central banks regulatory space which results into such operations circumventing the regulatory radar as is applicable to the usual

financial instruments and in process making the market participants and the customers becoming more vulnerable to investor protection and governance issues largely because of the unregulated nature of crypto currency operations.

d. Over-valuation concerns-Is crypto currency commodity or a security derivative.

Given the fluctuating fortunes of crypto currencies like Bitcoin which have been used for trading like commodities securities or /derivatives; serious concerns have been raised as to the sustainability of the crypto currencies for being recognized as a financial instrument/security for its lesser tenacity to survive upheavals in absence of securities laws being applicable to them. The volatility of their pricing to a Fiat currency like the US dollar coupled with lack of parity to fiat currencies; can be seen from the extent that World Bank has addressed crypto currencies like Ponzi schemes.^{xxxiv} Terming Bitcoin trade as a fraud, CEO of JP Morgan had asserted that being devoid of legal backing; it is going to cause a bigger scam than 17th-century scam of Tulip bulb craze which as the Investopedia highlights that at the peak of the scam; a single Tulip was worth the price of entire estate and at its bottoming out it was equal to price of onion resulting into a domino effect wherein there were only sellers and sellers at rock bottom prices with no buyers being available.^{xxxv}

e. Security Issues.

While the crypto currencies are said to be backed by a cryptography algorithm which has the capacity to establish trail by using the blockchain technology; at best such trailing can go to a particular IP address/computer and it is not able to identify the perpetrator of the fraud like the crypto-theft which occurred in 2017 wherein USD 31 million were siphoned of Tether platform.^{xxxvi} A report by CNBC highlights that crypto currency valued at US dollar 1.1 billion was siphoned off by the hackers during the first half of 2018 and with this being not a legal tender; is not protected by the insurers; highlighting the catastrophic consequences of cybercrime assaults on breaches in the crypto currency regime.^{xxxvii} Vietnam was witness to a USD 660 million fraud as Modern Exchange; the ICO exchange which promised 40% returns every month for deposit of Fiat money in payout for Pension tokens; resulting in the Vietnamese government to take stringent steps against the crypto currency operators for improving their management.^{xxxviii} Similarly in Japan, the crypto currency exchange Coincheck was at the receiving end of an online heist of USD

530 million whereby fraudsters took of the money online resulting in the Financial Services Agency (FSA) of Japan issuing directions to it for improving business operations.^{xxxix} An awareness paper by the US Security Exchange Commission highlights that the Initial Coin Offerings (ICOs) which tokens may be called by different names are prone to substantial risks of fraud and manipulation in such digital markets and assets are lesser regulated thus putting across balancing of parameters relating to risks, rewards and responsibilities.^{xl} As an OECD paper highlights; such cybersecurity violations to the domain of cryptocurrency markets arise out of breach of the cryptographic keys; namely the public and private keys available with the digital market investor.^{xli}

f. Addressing the issue of tax avoidance by crypto currencies:

A challenge before the tax authorities arises on account of pseudo anonymous nature of crypto currencies which are not routed through any financial intermediations and are therefore, running like a parallel economy through ‘personal wallets’ on cloud and one could hold multiple wallets. Being jurisdiction neutral, such transactions are more than likely to result in tax non-compliances.^{xlii} Given the infinite size of the crypto currencies market and the potential risks reward ratio attached in favour of it; as also it being not under the radar of taxation, makes it a safe tax heaven thereby highlighting need for appropriate policies of regulatory interventions. A research paper on governance and geopolitics in the age of crypto currencies highlights that issuance of Government recognized crypto currencies is an answer for such a problem whereby taxation avoidance become minimal once the subscribers have verified their digital wallets.^{xliii}

g. Characterization to Crypto currencies in terms of Accounting treatment.

It is important to examine the impact of such crypto currency is on the valuations through ‘revenue recognition’ in the financial statements when such currencies may have been held in books of accounts of a company which is holding or subsidiary company and wherein such transactions are permitted by law in a country as compared to a scenario where such transactions are debarred in respect of such holding/subsidiary company in another country. The regulatory response depending upon the recognition accorded to crypto currencies accords it a different status. The issue at hand is to examine whether crypto-currency is to be regarded as ‘Cash in hand’ or ‘Inventory’ or ‘intangible asset’ or a financial instrument, Given the illegality attached to it in many jurisdictions; it cannot be treated as ‘cash’ or ‘financial instrument’. However, going

forward as the legal nuances develop; they could partake the character of an ‘intangible asset’ and ‘inventory’

h. Anti-Trust Issues.

The use of decentralized technology through blockchain needs a large amount of computing power and investment into infrastructure for operating a blockchain architecture for mining. This makes it a very capital-intensive industry with a concentrated market; and perils attached with abuse of dominance are most likely to result in anti-trust violation harming the consumer and market participants. The block-chain and its effect on anti-trust enforcement are yet involving and receiving the attention of regulators.

i. Whither to initial coin offerings

Though a very recent concept starting in 2013, the Initial Coin Offerings broadly in the nature of crowdsourcing for start-up ventures so far have been able to raise about USD 8.8 billion. These ICOs suffer from the same set of problems plaguing the crypto currency market namely lack of regulatory oversight as they fall outside the domain of law due to lack of legislation, primitive phases of development of best practice industry standards and arbitrary valuations of the crypto currencies. It is felt that lack of a proper framework of legal formulations has impeded the process of detection and deterrence of due process of law in the absence of such legal standards for culpability being available.

j. Mitigating the risks attached with the crypto currency operations.

While the crypto currency markets can best be described to be in a phase of self-regulation, there is a need to evolve from the mere evolution of ‘industry standards’ of fairness to broader conception of the ‘rule of law’ and then to finally get to ‘role of law’. As far as the crypto currency market operations are concerned; we are still at the primitive phases wherein legitimacy through rule of law has to evolve for the operation of the crypto currency space which could at best be said to be self-regulated. The legislation supported by due regulations not only provides rights and obligations but will lay the benchmarks for do’s and don’ts relating to the operation of digital currency market space for the benefit of market participants and the consumers alike.

VII. DIFFERENT COUNTRY PERSPECTIVE ON THE CRYPTO CURRENCY OPERATIONS

The response of different countries to crypto currency regime varies. A 2015 Report^{xliiv} titled ‘Digital Currency – Game Changer or Bit Player’ by the Australian Parliamentary Committee states transaction in Bitcoins to be in nature of a barter arrangement. The same Report recognizes Bitcoin to be money for the purposes of GST incidence to avoid double taxation. The Report while highlighting that Australian Securities and Investment Commission does not regard it as a Financial Product under the Australian Securities and Investment Commission (ASIC) Act 2001; have ascribed the rationale to be linked to the decentralized nature of crypto-currency framework. Further, the Committee had highlighted the guidance available on the website of ASIC wherein the digital currencies were stated to be un-regulated and therefore providing lesser safeguards to be the consumers.

The Report further makes a reference to the views from Reserve Bank of Australia which details out the Australian economy to be guided by e-currency already and in view of the relatively smaller quantum of digital currencies viz. Crypto-currency in the Australian market; makes it to be not posing systemic risks. Australia therefore has recognized the crypto currencies in varying degrees and the Australian Transaction Reports and Analysis Centre (AUSTRAC) is the agency responsible for regulatory oversight in Australia. The Anti-Money Laundering and Counter Terrorism Financing Act 2006 has defined the ‘Digital Currency’ and require regulation of service providers of crypto currencies and comply with the reporting obligations thereof.

In the United States, the Coinage Act of 1965 specifies the state coins and currencies to the legal tenders for the discharge of debts, public charges taxes, and dues, etc. In the USA while the Security Exchange Commission regards Bitcoin a security; the Commodity Future Trading Commission (CFTC) regards it as a commodity. Further the Internal Revenue Service of the United States while seeing it as a value of storage; does not recognize it as a legal tender.

While recognizing it as a property, it has issued guidance on how it is to be taxed. In order to be a security, the US Courts rely on the *Howey Test* named after the decision of the US Supreme Court as far as laid out in the case by same name wherein a financial instrument could be treated as a security wherein the test highlight three parameters namely whether investment of money is

involved, for expectation of profit, under a common enterprise for profit to be generated by a third-party.

The Financial Crime Enforcement Network (FINCEN) under the US Department of Treasury which is charged with the collection of intelligence on financial transactions regards Bitcoin not to be a legal tender. A Bill titled the Fin-Cen Improvement Act mandates the FINCEN to demystify how crypto currencies could be used in illicit money laundering or activities relating to terrorism financing.^{xlv} FINCEN issued guidelines in 2013 identifying the exchanges dealing in crypto currencies/virtual currencies above 10,000 USD to represent such money services business to Government to combat money laundering and suspicious transactions.

The U.S. Congress in December 2018 has introduced two new bills namely the Virtual Currency Consumer Protection Act 2018 which will mandate it to carry out research on the modus operandi of price manipulation by the crypto currency operators and the regulation thereof; and the second bill being the Virtual Currency Market and Regulatory Competitiveness Act 2018 which mandates it to see the regulatory response to crypto currency regulations by other countries for determining the appropriate context for USA. It is also gathered that a new bill to exempt the initial coin offerings from the definition of securities is also in the offing.

These two new bills have tasked the CFTC to examine the way forward for crypto currencies in view of volumes to set the regulatory tone for risk mitigation arising out of crypto currencies in US market.

In European Union, the Fifth Anti-Money Laundering Directive as issued in 2017 provides for regulatory oversight to crypto currencies transactions through currency exchanges and has provided for legally binding interpretations of the virtual currencies.^{xlvi} It has barred its member states to issue any currency other than the EURO. A judgment by the European Court of Justice has provided for treatment of Bitcoin as a currency for the purposes of taxation.

In Japan, Digital currency has a legal tenor. The Act on Settlement of Funds^{xlvii} provides power to regulate the currency exchanges providing conversion between fiat and virtual currencies and the Financial Services Agency of Japan has issued relevant regulations in this regard. The Amendment Act primarily deals with tri-polar approach of registration requirement of crypto currencies exchanges, newer consumer protection rules and regulations for AML/CFT. As a move towards the protecting its consumers and investors, China does not recognize the crypto currencies

and has totally banned the crypto currency exchanges in 2017 resulting in the digital exchanges based in China to relocate their operations out of China.

However, the Chinese Central Bank PBOC is contemplating to have its own digital currency in the near future.^{xlviii} While not outlawing the crypto currency for dealing on crypto currencies exchanges; Korea has put in stringent mechanism through laws which mandate registration of such exchanges with the South Korea Financial Commission. The crypto currencies like bitcoin are not a legal tender in South Korea. Further, the government functionaries in Korea are desisted from holding or dealing with the crypto currencies. Further, in the case of Singapore though the crypto currencies are not recognized as a legal tender; as far as the crypto currency's exchanges are concerned; the Monetary Authority of Singapore regulate them.

VIII. INDIAN PERSPECTIVE

The Reserve Bank of India (RBI) reiterating its earlier stated position of cautioning the users/holders/traders of virtual currency/crypto currency for the risks associated with the virtual currencies; through a press release in April 2017 has barred intermediary banks regulated by RBI to stop dealing with bitcoin/crypto currency exchanges arising out of the market integrity, consumer protection and money-laundering parameters. RBI has consistently taken a stand that crypto currencies being neither currencies nor money; they cannot be recognized under the legal tenor under the extant Coinage Act 2011.^{xlix} It is noteworthy that the prices of Bit coin surged 4 times from USD 5,000 to 20,000 in 2017 where after seeing a lot of spark amongst the investing community; RBI had come out with a press release cautioning the investors. While that being the case, the peer to peer (P2P) operations of the crypto currency exchanges still persist and carry on in India and there are platforms dealing with conversion fiat to crypto currencies. Now the Government is contemplating to come out with own version of digital INR using the

blockchain technology. As a consequence of the ban imposed by the RBI; many legal cases were filed all across India bring for an appropriate Writ/Order declaring the RBI Circular to be unconstitutional. Currently, the SC, while refusing to grant an interim stay, is hearing a PIL relating to the ban by RBI on crypto currency exchanges in India. During the pleadings held in July 2018; RBI supporting its virtual crypto currency ban had informed the Apex Court that such

virtual currencies are prone to illegal transactions; these being immune from state regulation currently and therefore cannot be regulated.

The hearing to be held in September 2018 could not be concluded wherein RBI had again reiterated its position of crypto currency is not a legal tender under the extant legislative framework. It is also a peculiar fact in regard to the investment frenzy that despite the RBI ban; the volumes of transactions/absolute value of trading have increased at P2P exchanges in India highlighting the need for appropriate framework for regulating them.¹ It is important to mention that the Ministry of Finance, Government of India has constituted a panel to submit its recommendations on crypto currencies which Report is since awaited.

IX. EPILOGUE: MITIGATING RISKS IN VIRTUAL CURRENCIES ERA

The industrial evolution version 4.0^h which we are witnessing; as has been discussed in the introductory part has brought in newer business models arising out of a shared/collaborative economy through increased power of digital platforms. The Globalization of businesses and interconnectedness of economies is going to be disrupted through innovations like crypto currencies; which being digital currencies and being of virtual nature has started need for the regulatory interventions. The countries and global advocacy forums have started realizing that regulatory arbitrage has to take place by considering the full impact usage of blockchain technology for building up the market integrity, consumer and investor protection and financial inclusion by building strong measures for regulating the space of digital currencies. Nakamoto, the creator of Bitcoin protocol had visualized the need for a financial system through liberating monetary freedom over the internet without the need for financial intermediation for money as the trust in extant financial system and economic actors were stated to be too fragile.

The Crypto currencies were intended to provide for an alternate avenue for completion of commercial transactions outside of regular monetary space. It was envisaged that such electronic transactions providing for offsetting commercial considerations would be safe and fast. Whether or not the stated dimensions of safety network and more particularly the valuation aspect which is so crucial of this innovation is met out; is something which is yet passing through surrealism. Whether an era which deals with monetization could be left to self-regulation by market

participants to determine their conduct on the self-determination on best endeavor basis is grappling the attention.

The globalized outreach of businesses today is characterized by disruptions provides opportunities galore but at the same time the scenario is manifested with threats and vulnerabilities to the sanctity of financial markets through the increasing emergence and penetration of crypto currencies which have come to occupy the center stage of global economy by being a fungible medium for addressing the financial consideration part such transactions end to end basis. What has facilitated the emergence of crypto currencies as a form of digital currency is easy to access, distinctive holding, easy tradability, comparatively cheaper administrative costs in the transfer of digital money facilitated through the absence of any intermediaries through blockchain technologies and further which is immune from inflation.

The legal jurisprudence on Crypto-currency in terms of legal standards for state interventions is yet emerging globally. Given the transnational reach of businesses today; and the global interconnectedness; we need to examine if the extant framework to regulate digital currencies need to come out of hibernation mode. In a global scenario, there could be instances when an entity which has many subsidiaries; there could be varying degree of legal response through the national legal systems to the crypto-currency. Such a scenario would make the valuations of global operations through consolidation of financial statements an area for deep exploration. Further till the time a *lex specialis* relating to framework for operation of Digital currencies evolves across jurisdictions; the treatment of cryptocurrency whether a legal tender or otherwise at first instance and subsequently whether to be treated as commodity or functional currency for revenue recognition purposes in financial statements will be mired in controversies.

Equally quixotic will be treatment in financial statements of holding and subsidiary companies across borders when cryptocurrency's exact nature as asset class is yet emerging in varying forms internationally. From the perspective of a Sovereign; the country's stability in monetary policy space arises through the 'Fiat Currencies' which are issued by sovereign or Bullion amongst others and it is unfathomable to reconcile with the idea of a currency minted digitally which otherwise has no intrinsic worth. What has necessitated such recourse to legal interventions is the unabated interest in the investing community and volatility in crypto currency pricing; which does not have any intrinsic substantive value with their own free-floating exchange.

The crypto-currency valuation is independent of currency instability arising out of political considerations and has catapulted the need for bringing such non-fiat operations to a regulatory oversight in view of the tribulations that have followed with crypto currencies becoming a major tool for commoditized trading of digitized currency.^{lii} The technological innovations like cryptocurrency have potential to change the landscape of financial and economic governance. These transactions are outside the ambit of intermediation of financial systems through Central banking authorities and are not a legal tender generally in most countries.

The blockchain technology coupled with a distributive ledger in cryptocurrency flow has the tenacity to leave the trail of events which are immutable. In such a scenario whether a virtual currency which is a mere creation of technology; and therefore, would remain an area of regulatory discussions as sooner or later the mechanism has to evolve to the era of Government supported crypto currencies which are backed by a sovereign guarantee to fully effectuate and integrate the fiat currency and emergence of crypto-currency. What has been intriguing from the governance perspective is the valuation issues to crypto currencies which have virtually brought apocalypse in the trade of such crypto currencies. Such trepidations in actual price of crypto currencies to their intrinsic worth of the cryptocurrency raises fundamental questions on its substantiality thus resulting in pricing manipulations through cartelization as also not being part of a formal economy actively vis-à-vis the fiat currencies.

More than the issue of Currency Regulation; the focus has shifted towards market integrity to protect the financial interests of the consumer from this virtual asset bubble which so far had dwindling fortunes. A typical governance mechanism arising out of regulations imposed by 'state' requires either 'compliance mode' or deviation from the compliance standard is intended to result in eco-system of risk mitigation for the stakeholders involved.

What is important from a regulatory perspective is the aspect of sovereignty as far as its fiscal and monetary operations are concerned. When the era of crypto currencies which currency though may be seemingly miniscule with market capitalization of around USD 150 Billion or so; what is important to see is the investment/trading frenzy it has resulted in. It is pertinent to therefore start building up a 'regulatory regime' to prevent an avalanche of frontal assaults on the economic and corporate governance which otherwise this disruption may result in. Being an anonymous currency through an automated protocol; it has the tenacity to be used for money laundering as

also being a hub for ill-gotten money for illicit cross border investments through tax evasions. Also given the menace of terrorism; the globalized nature of such crypto currencies poses a serious threat for it likely to be used for financing of terrorism activities.

The longer we defray our thought processes and policy space for guidance on such matters; the perils of such crypto currencies would keep on increasing. What we need to see is to address the interface of regulatory oversight into the domain of crypto currencies; which currently is largely out of regulatory oversight or financial intermediations. An eco-system of strong regulatory oversight which addresses the challenges of trust, relevance and sustainability integrating the imperatives of existing economic and national governance will be able to provide right framework for providing resilience to market integrity, consumer protection and getting integrated with the mainstream economic activity.

Therefore, there is a need for not only national legal standards to emerge on operational framework of crypto currencies but also a global trade order to evolve regulating crypto currencies given its tenacity for cross border flows causing large scale extraterritorial risks. Such a legitimacy to its operations would enable its treatment in the financial statements i.e. to treat as a financial instrument, cash, inventory or an intangible asset. Going forward; while the decentralized governance may have the potential to bring about a newer concept of innovation; in order to safeguard the market integrity and the interest of the consumer as well as investor; it has to come clear on building up public trust; it is important to have clarity on such crypto currencies falling within the definition of relevant asset class i.e. whether as money or security under the relevant legislations by bridging the current loopholes.

It also highlights the need for the spread of the requisite awareness on part of the regulators and other governmental agencies to inform the market participants of the risks associated with crypto currencies and the risk mitigation part thereof. Integration of such approach has to ultimately converge to an era wherein crypto currencies would require to be backed by sovereign backing and till such time due to its speculative nature; the regulatory risks shall persist and crypto currencies would largely invite regulatory attention for its potential for misuse in money laundering and terrorism financing.

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