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**CRYPTOCURRENCY THROWN INTO THE LEGAL CAULDRON:
EXPLORING WAYS FORWARD¹****ABSTRACT**

The newly risen Bitcoin-tide has brought along with it a host of complications, not only for financial wizards but for our parliamentarians as well. I hope to touch upon the implications of Cryptocurrency phenomenon in India, its market scope, legality and the spectrum in which it operates and more importantly what it could bring along with it in the future. Besides its classification legally, the institutions that are equipped to deal in case of any disputes that arises are also dealt. And this paper is an attempt to answer the crucial question, that is, can the Blockchain technology be of utility for Indian people and if yes, how can the law shepherd the technological innovation in reaching the public with security and stability. In conclusion, we suggest modalities through which India can tackle the Cryptocurrency phenomenon which need not mirror the policy framework of China or the United States since currently our policy makers seem to be enamoured with foreign policies.

Keywords: Bitcoin, Blockchain technology, Cryptocurrency, Electronic Cash, Satoshi Nakamoto

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INTRODUCTION

“Bitcoin first went online in 2008 as an open-source technology, invented by a mysterious, anonymous individual going by the pseudonym Satoshi Nakamoto. It was invented to be invulnerable, untraceable, and safe for investors”. Satoshi Nakamoto describes it in his now famous white paper thus, “A purely peer-to-peer version of electronic cash would allow online payments to be sent directly from one party to another without going through a financial institution”.² This propelled the way for other Cryptocurrencies to surface. Bitcoin is currently used as digital currency to pay for items online *without any additional bank charges, or government control*. Companies and people can buy or sell items using Bitcoin as payment. As of today, companies using and accepting Bitcoin as a currency includes “Microsoft, Virgin Airlines, WordPress and Subway”.

MESOPOTAMIAN BARTER TO MODERN BITCOIN

“Bitcoin offers the promise of lower transaction fees than traditional online payment mechanisms and is operated by a decentralized authority, unlike government-issued currencies. It's only balances kept on a public ledger in the cloud that along with all Bitcoin transactions, which are verified by a massive amount of computing power”. It is the simplest way to exchange money at very low cost. “Bitcoin on mobiles allows you to pay with a simple two-step scan-and-pay. No need to sign up, swipe your card, type a PIN, or sign anything. All you need to receive Bitcoin payments is to display the QR code in your Bitcoin wallet app and let your friend scan your mobile, or touch the two phones together”.

Bitcoin transactions are secured by military grade cryptography. Nobody can charge you money or make a payment on your behalf. Irrespective of time and space you can make payments anywhere at any point of time. Transaction of Bitcoin varies across the border. There are no banks to make you wait three business days, no extra fees for making an international transfer, and no special limitations on the minimum or maximum amount you can send. With Bitcoin, there is no credit card number that some malicious actor can collect in order to impersonate you. In fact, it is even possible to send a payment without revealing your identity, almost like that in case of physical money.

“Concrete, real-life currencies such as the Rupee or the US dollar is regulated and managed by a central bank (Reserve Bank of India and US Federal Reserve respectively), which steadies

² Satoshi Nakamoto, “Bitcoin: A Peer-to-Peer Electronic Cash System”, page.1 (2009). available at: <https://bitcoin.org/bitcoin.pdf> (last visited on May 21st, 2021).

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rates, decides the exchange ratio, inflation index along with the hard task of balancing supply and demand of foreign exchange”.

CRYPTOCURRENCY EXPLAINED

Cryptocurrency³ is issued online and “its issuance tracked on a public ledger, the “Blockchain.”⁴ Digitally transferred, it exists only online. Much like gold, it can have monetary value while also being a commodity, but it’s still its own currency”. It is also decentralized and not managed by a single entity (therefore no scope of manipulation by the central entity), but rather a group of people who process transactions, called miners. “This means it is not subject to government regulations when traded or spent, and you don't need a bank to use it (in fact no third party is required at all)”.

If you notice, the necessity for a trusted third party gets completely eliminated from the operation among the Cryptocurrency users. Who does the verification then? It’s taken care of by the “miners”. Mining is the “process of finding a block most closely resembles a type of network lottery. For each attempt to try and find a new block, which is basically a random guess for a lucky number, a miner has to spend a tiny amount of energy. Most of the attempts fail and a miner will have wasted that energy”. “Only once about every ten minutes will a miner somewhere succeed and thus add a new block to the Blockchain.”⁵ What incentive does a miner have to verify? He is incentivised by the system by random allocation of Bitcoin”.

All this is carefully designed with the help of advanced mathematics and cryptography. In fact, “Satoshi Nakamoto was able to resolve and find a solution for a fiendishly difficult problem called “The Byzantine Generals' Problem”⁶ as first described by Lamport, Pease, and Shostak in 1982”. Although many were in the pursuit to solve the problem mathematically, “Satoshi Nakamoto found a practical relevance to a complicated theoretical problem in his white paper⁷ and its application namely the Bitcoin”.

³ “A digital currency in which encryption techniques are used to regulate the generation of units of currency and verify the transfer of funds, operating independently of a central bank. available at: <https://en.oxforddictionaries.com/definition/cryptocurrency>” (last visited May 21st, 2021); “A digital currency produced by a public network, rather than any government, that uses cryptography to make sure payments are sent and received safely. available at: <https://dictionary.cambridge.org/dictionary/english/cryptocurrency>” (last visited 5th April 2021); see more details on, Paul Vigna, Michael J. Casey, “The age of cryptocurrency: how bitcoin and digital money are challenging the global economic order”, St. Martin's Press, New York (2015).

⁴ Bitcoin: The name of the currency unit (the coin), the network and the software; Blockchain-A list of validated blocks, each linking to its predecessor all the way to the genesis block”.

⁵ “Available at: <https://bitcoinmagazine.com/guides/what-bitcoin-mining/> (last visited on July 29, 2021).

⁶ Marshall Pease and Robert Shostak, "The Byzantine Generals Problem ", 382-401 (ACM Transactions on Programming Languages and Systems 4, 3 (July 1982). available at: <http://research.microsoft.com/users/lamport/pubs/byz.pdf> (last visited on May 21st, 2021).

⁷ Supra note 1.

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LEGALITY OF CRYPTOCURRENCY ANALYSED

“The platform introduced a brand new paradigm away from the traditional regulators and regulations that govern fiat currency. Unlike illegal, counterfeit money, which is a blatant example of a “currency” that misrepresents itself as legal tender, Bitcoin is entirely different”. Nevertheless, it operates in a seemingly grey area when it comes to regulation. “However, many of these concerns boil down to misunderstandings or a lack of concrete rules that govern Bitcoin, rather than overt violations of the law”.⁸

The question of legality arises based on the utility that Bitcoin serves in society, and how the digital currency is being used by the transacting parties. In the context of India, it is indisputable that the Central Government has powers to legislate, designate a committee to regulate or empower an institution to oversee the transaction of the Cryptocurrencies. “Article 246 read with Seventh Schedule of the Constitution enumerates the list of activities that the Central Government and the State Governments are allowed to legislate”. “Entry 36 and 46 of List I of the Seventh Schedule of the Constitution states that the Central Government is allowed to legislate in respect of currency, coinage, legal tender, foreign exchange and bills of exchange, cheques, promissory notes and other like instruments respectively”.⁹

Since the nature of cryptocurrency transactions in its present form is similar to trading over shares of a company, within a week, it could either be double or triple times the purchase price or go less than half of its value. However, there is no direct regulation in force treating income generated over cryptocurrency transactions as taxable income under the Income Tax Act. Without the existence of any legal definition and approval in respect of such transactions, the Income Tax Department has issued tax notices to cryptocurrency traders.¹⁰ It is not clear how the department has decided to proceed with such notice, in the absence of a clear mechanism/guideline in place in respect of calculating profit/loss through such transactions.

“The Constitution empowers, and the Supreme Court of India (“Supreme Court”) has recognized authorities created under a statute to delegate certain functions to subordinate authorities.¹¹ A detailed white paper published by Nishith Desai Associates in 2015 does not classify Bitcoin as “currency” as defined in The Foreign Exchange Management Act, 1999”. This classification seems to be perfectly valid and within the contours of our laws and therefore

⁸ Available at: <https://bitcoinmagazine.com/guides/bitcoin-legal/> (last visited on May 21st, 2021”

⁹ “Indian Legal and Tax Considerations, "Bitcoins: A Global Perspective", (April 2015).

¹⁰ Available at: <https://www.ndtv.com/business/tax-department-sends-notices-to-bitcoin-investors-as-trading-hits-3-5-billion-1802266> (last visited on May 21st, 2021)

¹¹ Section 2(h) of The Foreign Exchange Management Act, 1999.

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it could be said “Bitcoins are not illegal in India”. “On 14th September, 2017 BTC China (BTCC), world’s second largest Cryptocurrency exchange announced the closure of its China operations,¹² However, the judicial review of an executive decision is unheard of in China and we would never get to know the reasoning that went into arriving at that decision”.

In fact, “very few countries have gone as far as to declare Bitcoin illegal. That does not, however, mean that Bitcoin is "legal tender" in the rest of the world. So far, only Japan has gone as far as to give Bitcoin that designation. However, just because something isn't recognised as a legal tender, does not mean that it cannot be used for payment”. It just means that there are no protections for either the consumer or the merchant, and that its use as “payment is completely voluntary and discretionary”.¹³

ALTERNATE FINANCIAL MODEL

When we look at the opinion of the top political economist and Professor *Lorenzo Fioramonti* saysthat Cryptocurrencies are providing a scope for Alternate Financial models.In his book, *Wellbeing Economy: Success in a World Without Growth*, he states, “Money systems are undergoing an unprecedented transition from centralised authority to decentralized networks. Conventional money is managed by states and banks, with users on the receiving end of monetary policy decisions. By contrast, most alternative currencies are peer-to-peer. That means they are managed by users themselves and do not require intermediaries. Some of them have global outreach thanks to digital technology, while others are locally based. Take Bitcoin, the most popular peer-to-peer currency in the world, with a market capitalization above 40 billion US dollars. A person buying the equivalent of \$1 in Bitcoin in 2009 would now possess roughly \$25 million. One Bitcoin is currently equivalent in value to two ounces of gold”.¹⁴

The emphasis on the paradigm shift must be focused on more by academics and financial pundits all the more now because world leaders have gotten to look at Cryptocurrencies with optimism. Take for example, “the President of the Russian Federation, Vladimir Putin who met the developers of Ethereum and committed to recognising Cryptocurrencies by 2018.In the Global Cryptocurrency Benchmarking study undertaken by Cambridge Centre for Alternative Finance, University of Cambridge, they herald the emergence of Cryptocurrencies by stating,

¹² Suprita Anupam "Another Blow To Bitcoin: Chinese Cryptocurrency Exchanges BTCC And ViaBTC Shut Down China Operations" 15th September 2017. available at: <https://inc42.com/buzz/bitcoin-cryptocurrency-btcc-shuts-china-op/> (last visited on May 21st, 2021)”.

¹³ “Available at: <https://www.coindesk.com/information/is-bitcoin-legal/> (last visited on May 21st, 2021).

¹⁴ Available at: <http://theconversation.com/alternative-currencies-are-the-future-why-it-matters-for-development-80036> (last visited on May 19, 2021)”.

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“A multitude of projects and companies have emerged to provide products and services that facilitate the use of Cryptocurrency for mainstream users and build the infrastructure for applications running on top of public Blockchain”.

“A Cryptocurrency ecosystem, composed of a diverse set of actors, builds interfaces between public Blockchain, traditional finance and various economic sectors. The existence of these services adds significant value to Cryptocurrencies as they provide the means for public Blockchain and their native currencies to be used beyond in the broader economy”.¹⁵ It is imperative that India takes note of the vast branching of Cryptocurrencies into traditional sectors and it in itself has an ability to sustain a digital economy for its own sake.

SECURITY CONCERNS

The WannaCry attack made headlines in the global media and the citizens were perplexed and abruptly forced to wake up to the sophistication of cyber attacks. Curiously, Bitcoins were the only payment method to pay WannaCry attackers.¹⁶ This in itself tells a lot about Cryptocurrencies and the preference cyber attackers have for Cryptocurrencies over conventional forms of currencies. The issue of Security plays the most important role in animating the minds of any political leader, as in the growing turbulence of financial uncertainty no leader wants unscrupulous elements duping the majority of the population. “In April 2017, the Narendra Modi government set up its first committee to look into the practicability of Cryptocurrencies in the Indian financial market and the concerns. The panel comprised officials from the finance ministry, the RBI, and India’s market regulator, the Securities and Exchanges Board of India (SEBI)”. “India, alone has around 10 Cryptocurrency exchanges with five million users and monthly volumes of Rs. 10,000crores (\$1.5 billion), according to industry estimates from early January, 2018”.¹⁷

First of all, India need not approach the problem with a blank slate. “A way to impose real-world identities onto Bitcoin transactions would be to enact new, wide-ranging laws or regulations at a governmental level. This type of approach is already being attempted by New York’s Department of Financial Services, which wants to set in place BitLicense regulations for digital currency”. “Among other rules, it would require Bitcoin businesses in New York (and

¹⁵ “Garrick Hileman & Michel Rauchs, “Global Cryptocurrency Benchmarking Study”, University of Cambridge (2017).

¹⁶ Available at: <https://www.businesstoday.in/current/economy-politics/how-to-buy-bitcoins-in-india-sell-legal-in-india-price/story/253734.html> (last visited on May 17th, 2021).

¹⁷ Available at: <https://qz.com/1197541/bitcoin-ban-inside-the-indian-governments-struggle-to-curb-cryptocurrencies/> (last visited on May 15th, 2021)”.
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any businesses with customers in New York) to identify all of their clients and store extensive records of transactions.”¹⁸ However this procedure tends to be tedious and we doubt whether in India at this stage of its technological development and resource scarcity this method would work.

AYES BLOCKCHAIN, NOES BITCOIN

The first thing to appreciate while dealing with Cryptocurrencies is that Cryptocurrency is a particular application of a Blockchain Technology which is similar to an Application installed in a smartphone. As per IBM, “The Bitcoin Blockchain in its simplest form is a database or ledger composed of Bitcoin transaction records. “However, because this database is distributed across a peer-to-peer network and is without a central authority, network participants must agree on the validity of transactions before they can be recorded. This agreement, which is known as “consensus,” is achieved through a process called “mining.” After someone uses Bitcoins, miners engage in complex, resource-intensive computational equations to verify the legitimacy of the transaction”. Through mining, a “proof of work” that meets certain requirements is created. The proof of work is a piece of data that is costly and time-consuming to produce but can easily be verified by others. To be considered a valid transaction on the Blockchain, an individual record must have a proof of work to show that consensus was achieved. By this design, transaction records cannot be tampered with or changed after they have been added to the Blockchain.”¹⁹

SHOULD INDIA LAUNCH ITS OWN CRYPTOCURRENCY? THE “LAKSHMI”

The Reserve Bank of India, from the very beginning, has been regularly issuing advisories to general public regarding the risks involved in transacting over cryptocurrency²⁰. “Reserve Bank’s executive chairman Sudarshan Sen on had said the central bank is not comfortable with non-fiat Cryptocurrencies like the Bitcoin. He had also hinted that it may launch its own Cryptocurrency”. He added “Right now, we have a group of people who are looking at fiat Cryptocurrencies. Something that is an alternative to the Indian rupee, so to speak. We are looking at that closely”.²¹

“The introduction of this new Cryptocurrency may require the amendment of the Indian Paper

¹⁸ “Available at: <https://99bitcoins.com/bill-gates-bitcoin/> (last visited on May 21st, 2021).

¹⁹ Available at: <https://www.ibm.com/blogs/blockchain/2017/05/the-difference-between-bitcoin-and-blockchain-for-business/> (last visited on May 21st, 2021).

²⁰ Available at: <https://www.businesstoday.in/current/economy-politics/bitcoin-rbi-alert-reserve-bank-warning-cryptocurrencies-virtual-currency/story/265386.html> (last visited on May 21st, 2021)”

²¹ “Available at: <https://www.deccanchronicle.com/business/economy/160917/govt-may-launch-indias-own-cryptocurrency-lakshmi-reports.html> (last visited on May 21st, 2021).

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Currency Act 1882 and Indian Coinage Act 1906. It would be useful to look at Financial Crimes Enforcement Network (“FinCEN”) of the United States on how they distinguish their “real” currencies with “virtual” currencies. The FinCEN Guidance Note dated March 18, 2013 states, “virtual currency is a medium of exchange that operates like a currency in some environments but does not have all the attributes of real currency. In particular, virtual currency does not have legal tender status in any jurisdiction”.

“This guidance addresses “convertible” virtual currency. This type of virtual currency either has an equivalent value in real currency, or acts as a substitute for real currency.²² Although it attempts to distinguish the “real” from the “virtual”, once the United States itself launches its own Virtual currency then this definition would hardly hold water”.

In Indian context, it must be borne in mind the purpose for the introduction of a new coin, Lakshmi. Though it has not been confirmed by the Indian Government, even if the Government launches it, how does the government justify its non-interference in such a type of Cryptocurrency? The algorithm for such a Coin should be first debated in either the Parliament or in a technical Parliamentary Standing Committee constituted exclusively to deal with financial regulations of such a Currency.

BAN IN TOTO, WORTH IT?

Indian Finance minister, “Shri Arun Jaitley generated a tsunami of market frenzy” by saying ‘the Bitcoin party is over in India’, although India has not banned Cryptocurrencies in one perfect stroke; it is useful to get a look at the Finance Minister’s speech, to understand what animates his thinking in relation to Cryptocurrencies. Finance Minister’s 2018 Budget speech states, “Distributed ledger system or the block chain technology allows organization of any chain of records or transactions without the need of intermediaries. The Government does not consider crypto-currencies legal tender or coin and will take all measures to eliminate use of these crypto-assets in financing illegitimate activities or as part of the payment system. The Government will explore use of block chain technology proactively for ushering in the digital economy.”²³

Now, financial gurus were all anxious in their prediction as to how the future course of Cryptocurrency would shape up, some leaning towards an optimistic reading of the speech and

²²Available at: <https://www.fincen.gov/sites/default/files/shared/FIN-2013-G001.pdf>(last visited on May 21st, 2021)”.

²³“Available at: <https://techcrunch.com/2019/02/03/psa-no-india-hasnt-banned-bitcoin-but-its-still-talking-tough-on-crypto/> (last visited on May 21st, 2021)”.

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some saw bumps ahead in the Indian Bitcoin road. However, it is a welcome move on the part of the Finance Minister that he correctly distinguishes the Application (Bitcoin/Cryptocurrencies) and the Operating System (Blockchain).

This is the crucial distinction that has to be argued for, in fact, the objective of this paper is to present to the financial, legal and the legislative community, the inter-dimensional scope that Blockchain technology has to offer, especially in a country that is as diverse as India. However, the new threats that might be posted by the same technology needs to be taken care of properly before accepting the benefits offered by the Blockchain technology. Apart from the security and terror funding concerns which are already under discussion, the issues related to the dispute redressal in respect of sale, transfer of and purchase over Blockchain technology needs to be well analysed. For example, disputes related to the current method of digital transfers by way of electronic fund transfers, transfers over e-wallets and through online payment portals are generally coming under the terms of the existing contracts or under the regulations/guidelines prescribed by the central monetary authority. There should be a mechanism in place to address all these concerns before even considering authorising or launching any kind of Blockchain technology in India.

FUTURE IS UNPREDICTABLE, BUT SHOULD NOT BE UNRULY

“Similar to how the internet changed the world by providing greater access to information, Blockchain technology is poised to change how people do business by offering trust. By design, anything recorded on a Blockchain cannot be altered, and there are records of where each asset has been”. So, while participants in a business network might not be able to trust each other, they can trust the Blockchain. “The benefits of Blockchain for business are numerous, including reduced time (for finding information, settling disputes and verifying transactions), decreased costs (for overhead and intermediaries) and alleviated risk (of collusion, tampering and fraud)”.²⁴

PricewaterhouseCoopers in its analysis says, “From a business perspective, it’s helpful to think of Blockchain technology as a type of next-generation business process improvement software”.²⁵ “Collaborative technology, such as Blockchain, promises the ability to improve the business processes that occur between companies, radically lowering the “cost of trust.” For this

²⁴ “Available at: <https://www.ibm.com/blogs/blockchain/2017/05/the-difference-between-bitcoin-and-blockchain-for-business/> (last visited on April 29, 2021).

²⁵ Available at: <https://www.pwc.com/us/en/industries/financial-services/fintech/bitcoin-blockchain-cryptocurrency.html> (last visited on April 29, 2021).

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reason, it may offer significantly higher returns for each investment dollar spent than most traditional internal investments. Financial institutions are exploring how they could also use Blockchain technology to upend everything from clearing and settlement to insurance”.²⁶ Therefore the future enterprise and industry must brace for this financial innovation. If India has to gain momentum in the global stage it becomes imperative that our young entrepreneurs are aware of the latest developments in Blockchain technology.

SUGGESTIONS FOR INDIAN LAWMAKERS

We are discussing of a new age technological revolution that Bill Gates has termed to be a “technical tour de force”,²⁷ one of the most respected tech-entrepreneurial minds in the industry and on the other hand “fraud”²⁸ by Jamie Dimon, the CEO of JP Morgan, a well-respected financial leader of the current world. This stark contrast in approach, if at all tells us anything that would be to not indulge in knee-jerk reactions or compartmentalization of the phenomenon surrounding Blockchain or Cryptocurrencies.

Our suggestion is, of course not to wait and watch but act in a guarded and consistent manner. But as of now, Indian enforcement agencies are too apprehensive to stick their necks out and draw up a schema for investors to follow. Economic Times correspondents emailed queries to “Zebpay, Coin-Secure and BtcxIndia and did not elicit any response. SBI, Axis Bank, HDFC Bank, ICICI Bank and Yes Bank did not respond to emails seeking comment”.²⁹ This proves our point. The major players in the field operate in uncertainty. And the bigger problem would be, if the government refuses to be proactive the banks and the middlemen tend to usurp their power and justify their actions ex post facto. Again, as reported in the Economic Times a banker involved in the matter say “Reserve Bank of India has not issued any directive to us – it’s a cautionary move on our part.”³⁰

In conclusion it us our earnest plea to our functionaries to gauge the scope and implications of an innovative technology such as Blockchain and form modalities for the operations in India, we may follow in the lines of “U.S. Treasury Department’s Financial Crimes Enforcement

²⁶Ibid.

²⁷ Available at: <http://www.indiabitcoin.com/bitcoin-is-a-technical-tour-de-force-bill-gates/> (last visited on April 29, 2021)”.
²⁸ “Available at: <http://fortune.com/2017/09/12/jamie-dimon-beats-up-on-bitcoin-says-its-a-fraud/> (last visited on April 29, 2021).

²⁹ Available at: <https://economictimes.indiatimes.com/industry/banking/finance/banking/top-banks-suspend-accounts-of-major-bitcoin-exchanges-in-india/articleshow/62576882.cms> (last visited on May 18, 2021).

³⁰ Available at: <https://economictimes.indiatimes.com/industry/banking/finance/banking/top-banks-suspend-accounts-of-major-bitcoin-exchanges-in-india/articleshow/62576882.cms> (last visited on May 19th, 2021).

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Network”,³¹ rather than allowing the banks and other private players make their own rules for themselves. As changes are dynamic, India needs to act proactively and adopt the new innovations such as cryptocurrencies with reasonable care.



³¹ See more detail, available at: https://www.fincen.gov/sites/default/files/2019-04/FinCEN_Guidance_CDD_FAQ_FINAL_508_2.pdf(last visited on May 21st, 2021)”.
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