



IS CRYPTOCURRENCY A BOON OR BANE OF TECHNOLOGY?

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INTRODUCTION

Transactions between one another have reached an unprecedented level wherein transformations have become elusive, uncertain and convoluted that has caused a lot of reverberations over a stipulated period of time. The evolution of Cryptocurrency has proliferated ever since its inception and has caused a lot of discrepancies in the eyes of the law. In recent years, it has brought a phenomenal change within investors that is yet to be fathomed by a man of ordinary prudence. There are ample of queries that are either unanswered or left in the dark. The authors would be explicating a comparative analysis of cryptocurrency regulation across the globe and repercussions behind it.

Cryptocurrency refers to a wide array of technological advancements that utilize the indigenous systems of public and private digital keys. It is defined as “a purely peer-to-peer version of electronic cash that would allow online payments to be sent directly from one party to another without going through a financial institution”.¹

Cryptocurrencies are wholly in the cloud and there is absolutely no plausibility to attain a physical form. However, it has a digital value that is commensurate of cash which is accepted by retailers and other businesses. Bitcoin is one of the prominent currency that has brought a tremendous change in the virtual currency platform. It is the first cryptocurrency generated, post-failure of B-money and Bit Gold. Bitcoin (BTC) is a decentralized, digital, anonymous currency that got no regulatory authority, and cannot be exchanged with gold or any other commodity². It got triumphed in the aeon of digital payment even though it is erratic in nature i.e. unpredictable and volatile because Bitcoin does not store value in a predictable fashion. The anonymity character is preferred towards *Dark web*, which has no access to the search engine as most of the illegal transactions are transpired through it. After installing the relevant software, the interested parties commence to transmogrify the transactions to the ledger and creating the network of blockchain.

Blockchain is an idiosyncratic mechanism which operates an encryption method known as cryptography through *Distribute Ledger Technology (DLT)*. DLT is the mode of sharing and recording of data through the ledger, which is identical and is functioned in a distributed network of computer servers. When the technologies get augmented simultaneously it will lead to security risks.

¹ Swartz, L. (2018). What was Bitcoin, what will it be? The techno-economic imaginaries of a new money technology. *Journal of Cultural Studies* Vol 32, 2018, Issue 4. Pp 623-650.

² R. GRINBERG, "Bitcoin: An Innovative Alternative Digital Currency", *Hastings Science & Technology Law Journal*, 2011, Vol. 4, 160 (electronically available on https://papers.ssrn.com/sol3/papers.cfm?abstract_id=

1817857). Also see the similar, yet sometimes gradually differing definitions set forth in: N.M. KAPLANOV, "Nerdy Money: Bitcoin, the private digital currency, and the case against its regulation", *Temple Law Review* 2012, 2 (electronically available via https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2115203);



The cyber traducers may target the blockchain by operating through malware, social engineering and manipulate it.

The first launch of blockchain to the virtual world was in the year 2009 which brought exhilaration among the researchers, technologists and other intruders. Initially, it tends to be a sensible solution to ensure a network of peer transactions but subsequently, the balance came down by an increase in the security risks. The lack of traceability and non-regulatory body created a virtual platform for the hackers to squander the blockchain network and mostly the victims of such mistreat are the developing countries. This is the key reason behind the ban of cryptocurrencies in many developing countries.

LEGALITY OF CRYPTOCURRENCY IN INDIA

Determination of legal status of cryptocurrency was a tedious task and a never-ending debate. The provisions proposed in the Indian Statutes clearly regulate 'Bitcoins' as a currency and it is confined for it to be legalized under different legislations. The term 'Virtual Currency' has not been defined under any of the statutes. However, as per *Section 2(h) of the Foreign Exchange Management Act (FEMA), 1999*, the term 'currency' is defined as, all currency notes, postal notes, postal orders, money orders, cheques, drafts, travelers cheques, letters of credit, bills of exchange and promissory notes, credit cards or *such other similar instruments, as may be notified by the Reserve Bank*. Based on the aforesaid definition, it is clear that 'Bitcoin' does not come under the ambit of currency but it does

not ostracize the same from authorizing it to be a currency by the Reserve Bank. In Japan, Bitcoin and numerous other cryptocurrencies were accepted as a legal tender³ i.e., it can be used as a method of payment in the said country but it has enforced stringent restrictions on use. Thus, it has been declared that Currency other than 'Indian currency' is termed as 'foreign currency' under the said Act and will have to acquiesce with the foreign exchange rules and guidelines. As per *Section 2(ffc) of the Copyright Act, 1957*, a 'Computer Programme' is defined as, a set of instructions expressed in words, codes, schemes or in any other form, including a machine readable medium, capable of causing a computer to perform a particular task or to achieve a particular result. Considering the cryptocurrency in a wider perspective, the above-mentioned definition which includes *a set of instructions expressed in codes or any other form* will be sufficing to bring virtual currencies within its purview. From the aforesaid definitions, it can be construed that Bitcoins can be legalized as a legal tender in India. This puts forth the thought of why the cryptocurrency is still not regulated in India and the rationale behind the prohibition.

Cryptocurrencies were not legalized in India when it was intercalated into the market. The entrance of cryptocurrencies brought about a drastic change in the Indian market. To date, Virtual currency trade has been carried by unregulated digital exchanges that have led to innumerable consequences. As much as virtual currencies are advantageous it has equal drawbacks considering the risk factors pertaining to it. One of the prime reason behind the non-regulation of Bitcoins and

³ In Japanese, the term 仮想通貨 ("virtual currency") is used.



other digital currencies in India is that many people who are investing are not well aware of the pit they are going to fall in and blindly pave the way for the hackers. The investors tend to indulge themselves in illicit activities unintentionally for none other than the profits that they would incur from it. Furthermore, the investments made are anonymous with no significant recipient and reception which is one of the major impediment. Virtual currencies are used as a medium for unlawful practices without the knowledge of the investors such as money laundering, ransomware payments, drug deals and targeted assassinations on the dark web. Given the risk factors embroiled in Bitcoins and other cryptocurrencies, the Reserve Bank of India (RBI) contended such currencies cannot be recognized as a legal tender in India. The investors were warned with respect to the usage of digital currencies from the year 2013⁴ and ultimately the RBI had to take the issue in their own hands that promulgated a ban on cryptocurrencies in India from July 2018 effective immediately.

REGULATION OF CRYPTOCURRENCY OVER THE GLOBE

- THE UNITED STATES

The United States is favouring towards manoeuvring of cryptocurrency, however, in order to avert the illegal transaction of Bitcoin, there are a plethora of government

agencies. The U.S Department of treasury's *Financial Crimes Enforcement Network (FinCEN)* has been announcing guidance on Bitcoin since 2013. Bitcoin is deemed to be as a money services business (MSB) but not as a currency by the treasury. According to *Bank Secrecy Act, 1970*, there are certain provisions that comply the transactors of Bitcoin to keep an account on the ledgers, reports and Internal Revenue Service (IRS) categorized Bitcoin as property for taxation.

- THE EUROPEAN UNION

EU does not have any specific legislation regarding cryptocurrencies, however, cryptocurrencies are broadly contemplated legal across the bloc. Since there are no central regulatory rules each European Union countries drawn their own stance regarding Bitcoin. The European Commission on March 8th, 2018, proposed an Action Plan on how to take advantage of the opportunities presented by technology-enabled Financial Services (*FinTech*) like blockchain, intelligence, and cloud service⁵. On October 22nd, 2015, in *Hedqvist* the European Court of Justice held that transaction to exchange a traditional currency for Bitcoin or other virtual currencies and vice versa constitute the supply of service for consideration but fall under the exemption from Value Added Tax⁶.

⁴ Tojo Jose, *Cryptocurrency Regulation in India*, Indian economy, 7 January 2018 (Jun. 18, 2018), available at <https://www.indianeconomy.net/splclassroom/cryptocurrency-regulation-in-india/>.

⁵ Communication from the Commission to the European Parliament, the Council, the European Central Bank, the European Economic and Social Committee and the Committee of the Regions. *FinTech Action Plan: For a More Competitive and Innovative European Financial Sector*, COM (2018)

109 final (Mar. 8, 2018), http://eurlex.europa.eu/resource.html?uri=cellar:6793c578-22e6-11e8-ac73-01aa75ed71a1.0001.02/DOC_1&format=PDF, archived at <http://perma.cc/F7NP-YPCP>.

⁶ Case C-264/14, *Skatteverket v. David Hedqvist*, ECLI:EU: C:2015:718, <http://curia.europa.eu/juris/celex.jsf?celex=62014CJ0264&lang1=en&type=TEXT&ancre>, archived at <http://perma.cc/7Q6Q-MM9V>.



- AUSTRALIA

Cryptocurrency is having the status as that of other official currency. With regard to the business transactions, *the Australian Taxation Office (ATO)* declared, the guidance for the exchange of Bitcoin in place of the Australian dollar on various transactions should be recorded as similar to that of non-cash transaction under the barter system⁷. According to the news report from January 2018, the ATO is parleying with the tax experts to assist them in tracking and oversee the cryptocurrency transaction and ensure all the taxes are paid⁸. Under the Anti-Money Laundering and Counter-Terrorism Financing Amendment Bill, 2017,⁹ the digital currency transactions need to be recorded in a register maintained by AUSTRAC (*Australian Transaction Reports and Analysis Centre*)¹⁰.

- JAPAN

In Japan, cryptocurrency transactions are regulated and are considered to be a legal tender. The amended Payment Service Act

defines “cryptocurrency”¹¹ as property value that can be used as payment for the purchase or rental of goods or provision of services by unspecified persons, that can be purchased from or sold to unspecified persons, and that is transferable via an electronic data processing system; or property value that can be mutually exchangeable for the above property value with unspecified persons and is transferable via an electronic data processing system.

- SWITZERLAND

Switzerland considers cryptocurrency as a legal currency, and it is formulating to be the center for the Bitcoins and Fintech transactions. On November 2, 2017, the Commercial Register Office in the Canton of Zug stated welcoming Bitcoin for the payment of administrative cost¹². The Swiss State Secretariat for International Finance announced the establishment of a working group on blockchain and ICOs in January

⁷ Tax Treatment of Crypto-Currencies in Australia – Specifically Bitcoin, AUSTRALIAN TAXATION OFFICE (ATO), <https://www.ato.gov.au/General/Gen/Tax-treatment-of-crypto-currencies-in-Australia--specifically-Bitcoin/> (last updated Dec. 21, 2017), archived at <https://perma.cc/UFZ7-QSUG>.

⁸ Duncan Hughes, ATO Creates Specialist Task Force to Tackle Cryptocurrency Tax Evasion, FINANCIAL REVIEW (Jan. 10, 2018), <http://www.afr.com/news/policy/tax/ato-creates-specialist-task-force-to-tackle-cryptocurrency-taxevasion-20180109-h0fyaz>, archived at <https://perma.cc/VNY2-R6G3>.

⁹ Anti-Money Laundering and Counter-Terrorism Financing Amendment Bill 2017, PARLIAMENT OF AUSTRALIA, https://www.aph.gov.au/Parliamentary_Business/Bills_Legislation/Bills_Search_Results/Result?bId=r5952 (last visited Mar. 26, 2018), archived at <https://perma.cc/3LS8-TZ5L>; Anti-Money

Laundering and Counter-Terrorism Financing Amendment Act 2017 (Cth) sch 1 pt 2, <https://www.legislation.gov.au/Details/C2017A00130>, archived at <https://perma.cc/892P-DQ5W>.

¹⁰ Rohan Pearce, Government Cracks Down on Bitcoin Money Laundering, COMPUTERWORLD (Aug. 17, 2017), <https://www.computerworld.com.au/article/626134/government-cracks-down-bitcoin-money-laundering/>, archived at <https://perma.cc/PW5D-U3SD>.

¹¹ Supra Note 3.

¹² Press Release, Kanton Zug [Canton Zug], Handelsregisteramt Zug akzeptiert Kryptowährungen Bitcoin und Ether als Zahlungsmittel [Commercial Register Office Zug Accepts Cryptocurrencies Bitcoin and Ether as Means of Payment] (Nov. 2, 2017), <https://www.zg.ch/behoerden/volkswirtschaftsdirektion/handelsregisteramt/aktuell/handelsregisteramt-zug-akzeptiert-kryptowaehrungen-bitcoin-und-ether-als-zahlungsmittel>, archived at <http://perma.cc/384H-BEUE>.



2018¹³. The working group will be working in harmony with the Federal Ministry of Justice and Financial Market Supervisory Authority (FINMA).

NON-REGULATION OF CRYPTOCURRENCIES IN OTHER COUNTRIES

- ARGENTINA

As per the National Constitution of Argentina¹⁴, the Central Bank has the sole authority to determine the matters with regard to legal currency.¹⁵ The Central Bank has not legalized cryptocurrencies as a legal tender however, in a country that has stringent rules over foreign currencies, virtual currencies are still persisting.¹⁶

- BRAZIL

Brazil's Securities Exchange Commission, *Comissão de valores mobiliários (CVM)*, has determined that the digital currency, *Niobium*

Coin (NBC) is not a financial asset.¹⁷ Based on the risks that are originating trading virtual currencies, the Brazilian Federal Reserve Bank (Banco Central do Brasil) issued *Notice No. 31,379 on November 16, 2017* stating that 'there is no specific provision governing virtual currencies in legal and regulatory frameworks associated with the National Financial System and BACEN, in particular, neither regulates nor supervises transactions involving virtual currencies'.¹⁸

- ECUADOR

The Central Bank of Ecuador declared that Bitcoins and other decentralized digital currencies are not authorized payment method in Ecuador.¹⁹ It reiterated that digital currencies are not legal tender and are not an authorized payment method for goods and services according to the *Código Orgánico Monetario y Financiero (Organic Monetary*

¹³ Press Release, Arbeitsgruppe Blockchain/ICO wird ins Leben gerufen [Working Group Blockchain/ICO Set Up], Eidgenössisches Finanzdepartement [EFD] [Swiss Federal Department of Finance], Jan. 8, 2018, <https://www.admin.ch/gov/de/start/dokumentation/medienmitteilungen.msg-id-69539.html>, archived at <https://perma.cc/2WJV-XXPD>.

¹⁴ CONSTITUCIÓN DE LA NACIÓN ARGENTINA [NATIONAL CONSTITUTION OF ARGENTINA] art. 75, para. 6, BOLETÍN OFICIAL [B.O.], Aug. 22, 1994, <http://servicios.infoleg.gob.ar/infolegInternet/anexos/0-4999/804/norma.htm>, archived at <https://perma.cc/XN2T-C5G7>.

¹⁵ Ley No. 24.144, Carta Orgánica del Banco Central de la República Argentina [Law No. 24,144, Charter of the Central Bank of the Republic of Argentina] art. 30, B.O., Oct. 13, 1992, <http://servicios.infoleg.gob.ar/infolegInternet/anexos/0-4999/542/texact.htm>, archived at <https://perma.cc/2CVW-8VNX>

¹⁶ El Banco Central Argentino Considera Riesgoso Operar con Bitcoins [Central Bank of Argentina Considers Risky

Operations with Bitcoins], *INFOTECNOLOGÍA* (May 28, 2014), <http://www.infotechnology.com/internet/El-BancoCentral-argentino-considera-riesgoso-operar-con-Bitcoins-20140528-0003.html>, archived at <https://perma.cc/746A-JBYG>.

¹⁷ Brazilian SEC Confirms: Digital Currency niobium Coin (NBC) is not a Financial asset, markets insider, 22 January 2018 (Jun. 18, 2018), available at <http://markets.businessinsider.com/news/stocks/braziliansec-confirms-digital-currency-niobium-coin-nbc-is-not-a-financial-asset-1013591426>.

¹⁸ Banco Central do Brasil, Communiqué 31,379 of November 16, 2017, <http://www.bcb.gov.br/ingles/norms/Virtual-currencies-Communique-31379-English.pdf>, archived at <https://perma.cc/N7KB-P5J9>.

¹⁹ Comunicado Oficial a la Ciudadanía, *BANCO CENTRAL DEL ECUADOR* (Jan. 8, 2018), <https://www.bce.fin.ec/index.php/boletines-de-prensa-archivo/item/1028-comunicado-oficial-sobre-el-uso-del-Bitcoin>, archived at <https://perma.cc/9AVZ-9H3V>.



and Financial Code).²⁰ Additionally, virtual currencies are not bolstered by any authority as they are not controlled, supervised or regulated by any Ecuadoran entity and also it is implicated with financial risks for the investors.²¹

- EGYPT

The Central Bank of Egypt banned the trading of cryptocurrencies due to high-risk factors associated with it. It was also stated that commerce within the Arab Republic of Egypt is only circumscribed to the official paper currencies authorized by the Bank.²² The primary Islamic legislator, Egypt's Dar al-Ifta had promulgated a religious decree that segregated commercial transactions in digital currencies as *haram* (prohibited under Islamic law). The legislator also held that cryptocurrencies could cause havoc in national security and central financial systems.²³

- IRAQ

The Central Bank of Iraq has prohibited the use of cryptocurrencies and pronounced that traders who carry out transactions involving virtual currencies will be punished by

penalties cited in the country's Anti-money laundering law.²⁴

- PAKISTAN

There is no specific law that regulates digital currencies in Pakistan. In May 2017, the State Bank of Pakistan (SBP) proclaimed that digital currencies are not recognized in Pakistan.²⁵ On April 6, 2018, the SBP published a press release that admonished the public on the risk of virtual currencies i.e.,

"The General Public is advised that Virtual Currencies/Coins/Tokens (like Bitcoin, Litecoin, Pakcoin, OneCoin, DasCoin, Pay Diamond, etc.) are neither recognized as a Legal Tender nor has SBP authorized or licensed any individual or entity for the issuance, sale, purchase, exchange or investment in any such Virtual Currencies/Coins/Tokens in Pakistan. Further, Banks/ DFIs/ Microfinance Banks and Payment System Operators (PSOs)/ Payment Service Providers (PSPs) have been advised not to facilitate their customers/account holders to transact in Virtual Currencies/ Initial Coin Offerings (ICOs)/Tokens vide BPRD's Circular No. 03 of 2018".²⁶

²⁰ CÓDIGO MONETARIO Y FINANCIERO [MONETARY AND FINANCE CODE] art. 94, REGISTRO OFICIAL [R.O.], Sept. 12, 2014, http://www.asambleanacional.gob.ec/es/system/files/r_o_codigo_organico_monetario_y_financiero.pdf, archived at <https://perma.cc/M63F-4ZRG>.

²¹ *Supra note 10*.

²² Press Release, Central Bank of Egypt, A Warning Statement (Jan. 10, 2018), <http://www.cbe.org.eg/en/Pages/HighlightsPages/Bitcoin%20Press%20Release.aspx>, archived at <https://perma.cc/3X6D-WFEG>.

²³ Religious Decree No. 4205, *The Status of Transactions in Bitcoins and other Cryptocurrencies under Islamic Law*, EGYPT'S DAR AL-IFTA (Dec. 28, 2017), <http://www.dar->

alifta.org/ar/ViewFatwa.aspx?sec=fatwa&ID=14139 (in Arabic), archived at <https://perma.cc/432D-NHE5>.

²⁴ Statement, Central Bank of Iraq, Bitcoin (Dec. 3, 2017), <https://cbi.iq/news/view/512> (in Arabic), archived at <https://perma.cc/JG54-PDHV>.

²⁵ Mubarak Zeb Khan, *FBR Goes After Bitcoin Trader*, DAWN (May 25, 2017), <https://www.dawn.com/news/1335184>, archived at <https://perma.cc/7VBW-LL6C>.

²⁶ Press Release, State Bank of Pakistan (SBP), Caution Regarding Risks of Virtual Currencies (Apr. 6, 2018), <http://www.sbp.org.pk/press/2018/Pr-VC-06-Apr-18.pdf>, archived at <https://perma.cc/L76H-PN8U>.



- QATAR

The Supervision and Control of Financial Institution Division at Qatar's Central Bank in February 2018, had issued a circular elucidating Bitcoin as illegal and it is unsupported by any central bank or government. Furthermore, the circular had also stated that trading of digital currencies involves high risks of price volatility and the risk of being used in financial crimes. It proscribed all banks operating in Qatar from dealing with such currencies, subject to penalties for violators.²⁷

IS BANNING CRYPTOCURRENCY ACROSS THE GLOBE AN ELIXIR?

There are mushroom of challenges faced by the Government agencies in regulating the decentralized digital currencies as it is embroiled with severe shortcomings. The Tax implications have played a vital role in legalizing Bitcoin. Many people face a lot of hardship from the persuasion of cryptocurrency in the market. Regulating cryptocurrency would only create havoc on the *people* in the end. Prior to the regulation, the Government must peruse the hazards pertaining to Bitcoin. A man of ordinary prudence must understand the pros and cons before investing in Bitcoins and other cryptocurrencies. The investors tend to indulge themselves in unlawful criminal activities such as money laundering, hawala transactions, evasion of tax, etc. that they were not cognizant in the first place. The transactions are entirely in the cloud and there is zero possibility for it to be in physical form but each and every cryptocurrency has a value that can be liquidated to cash. One of the foremost element that must be considered

is, the whole process is not undertaken or maintained by a central authority based on the procedure established by law. Hence, any kind of misfeasance or disparity that would arise must be solely borne by the investors and the Government will not be held liable and not come for the rescue. Countries that have regularized cryptocurrencies are in the infant stage as the intricacies involved are still unexplored. Considering the advancement of technologies, regularizing cryptocurrency would be futile. Regulations per se is an arduous task that cannot be consummated based on the whims and fancies of the people.

CONCLUSION
Cryptocurrencies are the products of the cutting edge technology, but it's a transgression due to its attribute of being untraceable and anonymous. With innovative policies and framework in the real world, itself tend to have a profusion of social- legal issues, then considering the virtual era which is a mysterious world it is palpable to face the adverse consequences of security issues and other social issues. Countries which regulated cryptocurrencies need to delve into the risks involved in its exchange. The authors would like to conclude by stating that, with the prodigious development of technologies, the Governments are facing serious challenges by regularizing what comes to their platter instead of taking necessary measures towards it. Framing of appropriate laws based on technological advancement has now become the need of the hour.

²⁷ SAMA to Launch Digital Riyals for Banks, *ARAB NEWS* (Oct. 5, 2017), <http://www.arabnews.com/node/1172906/>

business-economy, archived at <https://perma.cc/XC72-Y8U5>.