

REINVENTING REGULATION: THE CURIOUS CASE OF TAXATION OF CRYPTOCURRENCIES IN INDIA

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Nearly twenty-five years ago, the internet disrupted the world and started a new era of technological supremacy. Today, with the rise of cryptocurrencies and its underlying technology, we stand at the helm of another such revolution. Cryptocurrencies like bitcoin are decentralised, digital currencies relying on a peer-to-peer network which operates without the need for a third-party intermediary like the Reserve Bank of India. Coupled with lack of regulatory guidance, its unique technical aspects create huge complications in its taxation. While much ignorance still prevails in respect of cryptocurrencies, countries around the world have finally started taking notice and acting upon it. This paper focuses on what cryptocurrencies are, why they are important, and the prevailing regulatory structure concerning them. It overviews the complete landscape for taxation of cryptocurrencies like bitcoin, analysing the indirect and direct tax structure, particularly after the implementation of Central Goods and Services Tax Act, 2017, while also addressing the issues concerning the evasatory practices. The findings help in assessing the regulatory aspects in light of the technological, economic, social and financial forces, and establishing a set framework for taxation of cryptocurrencies.

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I. INTRODUCTION

“For in every country of the world, I believe, the avarice and injustice of princes and sovereign states abusing the confidence of their subjects, have by degrees diminished the real quality of the metal, which had been originally contained in their coins.”¹

Nassim Taleb in his book ‘The Black Swan’, defines a black swan as an outlier with massive impact, which seems highly improbable until it occurs, but more predictable after its rise.² There is little doubt that cryptocurrencies are possibly the next black swan – a laughingly impossible event, akin to the industrial revolution, or paradoxically, even the great depression. In fact, the rise of digital currencies as the next generation currency has already garnered attention across the globe, and lately in India.³ Recently, the Government of India established an interdisciplinary committee consisting of, *inter alia*, the NITI Aayog and the Reserve Bank of India (‘RBI’), to consider the framework surrounding digital currencies in India.⁴

As of 2017, there exist several hundreds of cryptocurrencies in function, the most popular of them being ‘bitcoin’.⁵ Since its inception in November, 2008, bitcoin has shown immense promise as an alternative to the traditional methods of monetary exchange. Bitcoin is the world’s first private, digital cryptocurrency that functions solely on the basis of peer-to-peer network.⁶ However, buying and selling is usually done through centralised bitcoin exchanges functioning in a manner akin to regular stock exchanges. Touted as the next revolution after the internet,⁷ its advantages have led it to become one of the most acceptable digital currencies in the

¹ ADAM SMITH, AN INQUIRY INTO THE NATURE AND CAUSES OF THE WEALTH OF NATIONS 43 (1776); *See generally* F.A. HAYEK, DENATIONALISATION OF MONEY - THE ARGUMENT REFINED (3rd ed., 1990).

² NASSIM NICHOLAS TALEB, THE BLACK SWAN: THE IMPACT OF HIGHLY IMPROBABLE 18 (1st ed., 2007).

³ Keerthik Sasidharan, *Cryptocurrency: An Idea Whose Time Has Come*, June 4, 2017, available at <http://www.thehindu.com/opinion/columns/cryptocurrency-an-idea-whose-time-has-come/article18714908.ece> (Last visited on June 10, 2017).

⁴ Vikas Dhoot, *Waking up to Bitcoins, Virtual Currencies, Govt Sets up Panel to Recommend Regulations*, April 12, 2017, available at <http://www.thehindu.com/business/Economy/waking-up-to-bitcoins-virtual-currencies-govt-sets-up-panel-to-recommend-regulations/article17951305.ece> (Last visited on May 15, 2017).

⁵ Coin Market Cap, *Cryptocurrency Market Capitalizations*, available at <https://coinmarketcap.com> (Last visited on July 5, 2017).

⁶ Satoshi Nakamoto, *Bitcoin: A Peer-to-Peer Electronic Cash System*, 1–5, available at <https://bitcoin.org/bitcoin.pdf> (Last visited on March 13, 2017).

⁷ Peter Spence, *Bitcoin Revolution Could be the Next Internet*, February 25, 2015, available at <http://www.telegraph.co.uk/finance/currency/11434904/Bitcoin-revolution-could-be-the-next-internet-says-Bank-of-England.html> (Last visited on June 4, 2017); Ken Tindell, *Geeks Love The Bitcoin Phenomenon Like They Loved The Internet In 1995*, April 5, 2013, available at <http://www.businessinsider.com/how-bitcoins-are-mined-and-used-2013-4?IR=T> (Last visited on June 3, 2017).

world, with countries such as Philippines, Japan, and recently even Russia, a country who had earlier sought prison terms for bitcoin adapters, acknowledging its role in the banking system and seeking to enforce regulations to govern it.⁸ Indeed, the growth of bitcoins has tremendous benefits in making banking accessible to marginalised population without a need for third party intervention.⁹

While there is no legal definition for ‘cryptocurrency’, the Oxford Dictionary defines ‘cryptocurrency’ as follows:

“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.”¹⁰

At present, most countries in the world function on fiat currencies issued by the government as money and possessing value by virtue of a government decree.¹¹ A prime essential of these currencies is that they need a central regulatory body to govern them, meaning thereby that the value is derived in some abstract manner from the sovereign authority of the state.¹² However, such a system suffers from the intrinsic weaknesses of the trust-based model, with huge dependence on financial institutions to process payments.¹³ Cryptocurrencies, on the other hand, use cryptography to manage the creation of new units and secure transactions.¹⁴ They offer ‘crypto proof’ as an alternative to trust and allow two parties to transact with each other securely, without a need for a trusted third party.¹⁵ The value of such currency is not derived from government fiat or gold, but is based on the value that people assign it.¹⁶

Broadly, there can be two defining features of cryptocurrencies – (i) decentralisation and (ii) absence of intermediaries.¹⁷ The essential advantage of digital currencies like bitcoin is that they function entirely on the basic principle of demand and supply, having no

⁸ Jens Kalaene, *Russia to End Cryptocurrency Limbo by Proposing Regulation*, September 25, 2017, available at <https://www.rt.com/business/404468-russia-bitcoin-bill-regulation/> (Last visited on September 25, 2017).

⁹ Brett Scott, *How Can Cryptocurrency and Blockchain Technology Play a Role in Building Social and Solidarity Finance?* 5-13 (United Nations Research Institute for Social Development Working Paper Group, Paper No. 2016-1, 2016) available at <http://www.unrisd.org/brett-scott> (Last visited on September 30, 2017); See Nicholas A. Plassaras, *Regulating Digital Currencies: Bringing Bitcoin within the Reach of the IMF*, 14 CHICAGO JOURNAL OF INTERNATIONAL LAW 378-407 (2013) (This paper talks about the benefits of digital currencies).

¹⁰ Oxford Dictionaries, *Cryptocurrency*, available at <https://en.oxforddictionaries.com/definition/cryptocurrency> (Last visited on July 24, 2017).

¹¹ Abba P. Lerner, *Money as a Creature of State*, 37 THE AMERICAN ECONOMIC REVIEW 2 (1947).

¹² *Id.*, 313 (Historically, the value of fiat currencies was derived from the ability of the government to redeem such currencies in gold or other commodities. However, in modern times, the state can make almost anything generally acceptable as money by attaching a contractual obligation to it, therefore being a ‘creator of money’); See B.M. ANDERSON JR., THE VALUE OF MONEY (1917).

¹³ Nakamoto, *supra* note 6, ¶1.

¹⁴ Andy Greenberg, *Crypto Currency*, April 20, 2011, available at <https://www.forbes.com/forbes/2011/0509/technology-psilocybin-bitcoins-gavin-andresen-crypto-currency.html> (Last visited on May 23, 2017).

¹⁵ Nakamoto, *supra* note 6, ¶2.

¹⁶ JERRY BRITO & ANDREA CASTILLO, BITCOIN: A PRIMER FOR POLICYMAKERS 29 (4th ed., 2013).

¹⁷ Here, I talk about the original P2P network on which the regular bitcoin exchanges are based, hence noting its essential characteristics. Since any cryptocurrency can function without intermediaries, the presence of companies like Zebpay, Unocoin, etc. is only a systematised effort to enable efficient P2P and their absence would not debar bitcoins from functioning.

intrinsic value and no reserves.¹⁸ Thus, they offer a near-perfect system to transact, with anonymity and transparency at the same time. Nonetheless, it is also true that the very same qualities that make bitcoin attractive could also allow users to evade taxes, launder money and trade illegal goods.¹⁹

Through this paper, I attempt to posit and analyse the perplexing aspects of taxes that may apply to the transactions in cryptocurrencies, specifically bitcoin. Such pre-emptive analysis is desirable, as legislation must, to the utmost extent, be predictive of innovation. Since the core structure of all cryptocurrencies, i.e. ‘blockchain’, is the same, the terms ‘cryptocurrencies’ and ‘bitcoins’ are often used interchangeably in this paper, and tax treatments of one may as well be applied to another.²⁰ This paper is divided into six parts. Part I deals with the background. Part II considers the technical aspects relating to use of cryptocurrencies. Part III discusses, in brief, the present regulatory mechanisms governing cryptocurrencies. In part IV, the indirect and direct tax frameworks have been dealt with in detail. Part V focuses on the evolving international practices. Finally, Part VI provides conclusion and recommendations.

II. MECHANICS OF BITCOIN

A. OVERVIEW

The rise of virtual currencies is not a new phenomenon, with origins as early as 1990s. E-cash or digital cash as anonymous electronic money was first published by David Chaum in 1983.²¹ Surprisingly, twelve years before the publication of the white paper on cryptocurrency by Satoshi Nakamoto in 1996, a group of National Security Agency analysts in the United States of America had published a paper on the cryptography of anonymous electronic cash.²² Adam Back’s Hashcash in 1997,²³ and Wei Dei’s b-money in 1998,²⁴ give glimpses into the perpetual need to have a currency where the involvement of the government is “not temporarily destroyed but permanently forbidden and permanently unnecessary.”²⁵

¹⁸ International Monetary Fund, *Virtual Currencies and Beyond: Initial Considerations*, available at <https://www.imf.org/external/pubs/ft/sdn/2016/sdn1603.pdf> (Last visited on September 25, 2017).

¹⁹ BRITO & CASTILLO, *supra* note 16, ¶2.

²⁰ The common element in all major cryptocurrencies is the blockchain or the public ledger, also the core structure of these currencies, which allows the network participants to run the network in the absence of a central authority. However, the difference lies with respect to the level of innovation in such currencies such as different block time, supply structure, issuance schemes etc. See Garrick Hileman & Michel Rauchs, *Global Cryptocurrency Benchmarking Study*, available at <https://cointelegraph.com/storage/uploads/view/2017-global-cryptocurrency-benchmarking-study.pdf> (Last visited on September 26, 2017); Jean-Paul Delahaye, *Cryptocurrencies and Blockchains*, 2 INFERENCE INTERNATIONAL REVIEW OF SCIENCE 4 (2016).

²¹ David Chaum, *Blind Signatures for Untraceable Payments*, 82 ADVANCES IN CRYPTOLOGY PROCEEDINGS 199–203 (1983),

²² Laurie Law, Susan Sabett & Jerry Solinas, *How To Make A Mint: The Cryptography Of Anonymous Electronic Cash*, 46 THE AMERICAN UNIVERSITY LAW REVIEW 4 (1997).

²³ Adam Back, *Hashcash — A Denial of Service Counter-Measure*, available at <http://www.hashcash.org/papers/hashcash.pdf> (Last visited on June 14, 2017).

²⁴ Wei Dei, *B Money*, available at <http://www.weidai.com/bmoney.txt> (Last visited on April 13, 2017).

²⁵ *Id.*, ¶2.

While much discussion has been held on the importance of bitcoins, or other cryptocurrencies as the future of conventional monetary exchange,²⁶ discussion on its mechanics is not within the scope of this paper. However, an analysis of tax aspects requires us to delve into some depth and understand, to the very least, the functioning of it. To a layman, bitcoin is an electronic currency capable of being generated and stored digitally. It is transacted in the same way as an ordinary currency, except it does not enjoy the backing of the government.

B. HOW BITCOIN WORKS

Bitcoins are nothing but computer files comprising of data, similar to media or a text file. These bitcoins are generated through a process called ‘mining’.²⁷ In this process, a miner using software running on specialised hardware, processes the transactions.²⁸ Consider a bitcoin as a hidden gem, which is required to be quarried in order for its value to be exploited. In that sense, ‘mining’ of bitcoins is akin to discovering new bitcoins. In order to track transactions occurring with this currency, bitcoins rely on a peer to peer network.²⁹ Hence, every activity occurring should be transmitted by a node to its neighbours in the network.³⁰ When a transaction is done by the user, the node that receives the transaction verifies the authenticity of the transaction by the person attempting the transfer following which it attempts to authorise the problem by solving a puzzle (in cryptography terms – inverting the hash function).³¹ After the authorisation is done, a proof of transaction is sent to the other nodes in the network.³² This process of verification of genuineness of bitcoin transactions is referred to as mining.³³ As a reward for authorising the transaction, each node receives certain bitcoins, the amount of which is predetermined.³⁴

Mining is typically a mathematical process, with each corresponding process difficult than the former.³⁵ By design, the total number of bitcoins expected to be created overall is twenty-one million.³⁶ This process is similar to finding prime numbers in a set of rational numbers, where even though it is easier to find smaller prime numbers, the trouble keeps increasing as we move towards finding larger prime numbers, hence requiring more efforts. Given this rising rate of difficulty in mining bitcoins and a fixed timescale (all bitcoins would be

²⁶ See Chris Richter, Sascha Kraus & Ricarda B. Bouncken, *Virtual Currencies Like Bitcoin as A Paradigm Shift in The Field of Transactions*, 14 INTERNATIONAL BUSINESS & ECONOMICS RESEARCH JOURNAL (2015).

²⁷ The Economist, *How Bitcoin Mining Works*, January 20, 2015, available at <https://www.economist.com/blogs/economist-explains/2015/01/economist-explains-11> (Last visited on September 26, 2017).

²⁸ See Allison Berke, *How Safe Are Blockchains? It Depends*, March 7, 2017, available at <https://hbr.org/2017/03/how-safe-are-blockchains-it-depends> (Last visited on September 26, 2017).

²⁹ Moshe Babaioff, *On Bitcoin and Red Balloons*, February, 2012, available at <https://www.microsoft.com/en-us/research/wp-content/uploads/2012/06/bitcoin.pdf> (Last visited on July 3, 2017).

³⁰ *Id.*, ¶3.

³¹ *Id.*

³² Bitcoin, *Frequently Asked Questions*, available at <https://bitcoin.org/en/faq#what-is-bitcoin> (Last visited on March 6, 2017).

³³ *Id.*

³⁴ *Id.*

³⁵ DAVID LEE KUO CHUEN, HANDBOOK OF DIGITAL CURRENCY - BITCOIN, INNOVATION, FINANCIAL INSTRUMENTS, AND BIG DATA 29 (6th ed., 2015).

³⁶ Venzen Khaosan, *What Affects the Bitcoin Price?*, September 25, 2014, available at <https://www.cryptocoinsnews.com/affects-bitcoin-price> (Last visited on July 1, 2017).

mined in the next ninety five-years approximately), the supply of bitcoins is generally assumed to be constant.³⁷ Due to the constant supply and increasing demand, the price gradually goes up, explaining the increase in bitcoin to United States Dollar exchange rate over the course of time (BTC/USD around USD 4900 as on September 1, 2017).³⁸

When a transaction is carried out by a user, it is confirmed and locked with a virtual padlock forming ‘blockchain’ – a decentralised public ledger that records such transfers.³⁹ A new bitcoin is generated when the key to these padlocks (also called as ‘Hash’) is found by the miners and the authenticity of the transaction is verified and checked.⁴⁰ Once such bitcoin is produced, it can then be traded for real currency based on the prevailing exchange value, and is then transferred into the wallet of the purchaser.⁴¹ The owner of the wallet usually has two keys – a public key which is available with everybody and can be used to track the wallet’s activity online; and a private key available only with the owner which is required to complete the transaction.⁴²

As stated earlier, to ensure that new bitcoins are generated progressively, the incentive to miners to successfully solve a block is halved every four years, and the difficulty gradually increases. The entire design is such that the production of most cryptocurrencies is set to gradually decrease, eventually placing a cap on the number of units that will ever be in circulation.⁴³ The whole system is considered impenetrable and highly secure. As stated by Nakamoto himself, verification is reliable as long as honest nodes control the network, and security is achieved unless the network is overpowered by the attacker.⁴⁴

C. ISSUES REGARDING USAGE

Theoretically, the use of bitcoins, by and large, raises the same issues as those in normal currencies – (i) privacy and (ii) counterfeiting.⁴⁵ The issue of privacy is resolved through the use of public-key encryption, a technique where two mathematically connected keys, known as a ‘public key’ and a ‘private key’, are used to encrypt or decrypt transactions.⁴⁶ A transacting party transferring bitcoins from the source address to the destination address, uses the public key (available in public domain) to encode payments which can be decoded only by the recipient’s private key.⁴⁷ Such private key is also used by the payer to approve any transfers occurring through his wallet. The transacting party can create as many pseudonymous bitcoin addresses as

³⁷ *Id.*

³⁸ *Id.*

³⁹ Cocco L & Marchesi M, *Modeling and Simulation of the Economics of Mining in the Bitcoin Market*, 11 PLOS ONE 10 (2016).

⁴⁰ *Id.*

⁴¹ Jack Schofield, *How Can I Invest in Bitcoin?*, June 29, 2017, available at <https://www.theguardian.com/technology/askjack/2017/jun/29/how-can-i-invest-in-bitcoin> (Last visited on September 26, 2017).

⁴² BRIAN KELLY, *THE BITCOIN BIG BANG — HOW ALTERNATIVE CURRENCIES ARE ABOUT TO CHANGE THE WORLD* 77 (2015).

⁴³ *Id.*, 5.

⁴⁴ Nakamoto, *supra* note 6, ¶8.

⁴⁵ *Id.*, 173.

⁴⁶ The Economist, *Bits and Bob*, June 13, 2011, available at <https://www.economist.com/blogs/babbage/2011/06/virtual-currency> (Last visited on September 24, 2017).

⁴⁷ *Id.*

necessary to use them in different bitcoin transactions. Though all such transactions are public, nothing ties individuals/organisations to the bitcoin addresses used in doing such transactions, ensuring the user's anonymity.⁴⁸ Though, this process ensures privacy and security, it does not prevent the owner from 'double spending' (also referred as 'counterfeiting'). This issue is resolved by maintaining a non-modifiable public ledger for all transactions (by using the timestamp server and the subsequent publication of the hash on the block chain).⁴⁹ It is essential to note that as opposed to the public blockchains as described above, private blockchains are also in use, which give their owners control over who could verify, submit or read transactions entered on such ledgers.⁵⁰

Apart from these, other practical difficulties include scarcity of merchants and vendors who transact in bitcoins, delays in verifying transactions, fluctuations in value, money laundering, terrorist financing, etc.⁵¹ There have also been instances of security breaches in bitcoin exchanges and hacking of wallet operators in the past.⁵² However, such instances have been ineffective in limiting the growth of cryptocurrencies.

III. PRESENT REGULATORY MECHANISM IN INDIA

A. OVERVIEW

Currently, the regulatory mechanisms to govern bitcoins are almost non-existent in India, and although bitcoins are not legal as yet, they have not been outrightly declared illegal either.⁵³ Having said that, bitcoins have not entirely failed to gather the interest of policymakers. Recently, the Serious Fraud Investigations Office ('SFIO'), the investigative arm of the Ministry of Corporate Affairs, was instructed to gather data regarding the use of bitcoins by corporate entities.⁵⁴ Introduction of a regulatory regime has almost become essential, primarily because of the rapid increase in market capitalisation of cryptocurrencies in the recent past.⁵⁵ It has also been suggested that such currency be traded on registered stock exchanges, similar to gold, in order to establish a formal tax base, and the transactions be governed by the Securities and

⁴⁸ This basic approach to ensure user anonymity is a good starting point, but availability of the details of all transactions on public ledger (blockchain) along with non-anonymous internet infrastructure can present threats to anonymity. See J. Herrera-Joancomartí & C. Pérez-Solà, *Privacy in Bitcoin Transactions: New Challenges from Blockchain Scalability Solutions* in MODELING DECISIONS FOR ARTIFICIAL INTELLIGENCE (2016).

⁴⁹ Nakamoto, *supra* note 6, ¶3.

⁵⁰ See Praveen Jayachandran, *The Difference Between Public And Private Blockchain*, May 31, 2017, available at <https://www.ibm.com/blogs/blockchain/2017/05/the-difference-between-public-and-private-blockchain/> (Last visited on September 26, 2017).

⁵¹ Apart from issues like money laundering and terrorist financing, most of the issues are self-correcting, since they are assumed to be resolved with the increasing usage of cryptocurrencies.

⁵² Alex Hem, *A History of Bitcoin Hacks*, March 18, 2014, available at <https://www.theguardian.com/technology/2014/mar/18/history-of-bitcoin-hacks-alternative-currency> (Last visited on September 25, 2017).

⁵³ Yuthika Bhargava, *Bitcoin — To Ban Or Not To*, July 13, 2017, available at <http://www.thehindu.com/todays-paper/tp-national/bitcoin-affords-anonymity-in-grey-area/article19267696.ece> (Last visited on July 13, 2017).

⁵⁴ The Economic Times, *Government Steps Up Vigil On Bitcoin Transactions*, May 30, 2017, available at <http://economictimes.indiatimes.com/news/economy/policy/government-steps-up-vigil-on-bitcoin-transactions/articleshow/58911702.cms> (Last visited on June 5, 2017).

⁵⁵ The market capitalisation of cryptocurrencies increased by over 300 percent in the second quarter (April-June) of 2017. See Coinmarketcap, *Cryptocurrency Market Capitalization*, available at <https://coinmarketcap.com/charts/> (Last visited on July 3, 2017).

Exchange Board of India ('SEBI').⁵⁶ This is a crucial development, since the jurisdiction of SEBI in *SEBI v. Pan Asia Advisors Ltd.* ('Pan Asia') was held to extend to entities beyond India, according to the territorial nexus doctrine. Further, it can help the regulators in enforcing the SEBI Act and other disclosure requirements on entities operating in the bitcoin network, while regulating cryptocurrencies in India (traded globally).⁵⁷ Moreover, considering bitcoins as security would mean that the sellers of bitcoins, exchanges where such currencies are traded and SPVs formed to hold bitcoins would be subject to stringent regulatory requirements and arduous penalties for non-compliance under the existing securities laws of India. Besides, an approach to encompass bitcoin transactions within the ambit of SEBI is similar to that adopted by the US Securities Exchange Commission ('SEC') a few years ago, where it brought an action against virtual currency related investments, citing them as 'securities'.⁵⁸ However, no public stance has yet been taken by the SEC on whether bitcoins are securities or not.⁵⁹

Being a relatively unregulated form of currency, there is not much jurisprudence available which discusses the ability of the citizens in India to transact through bitcoins. However, the country's central bank has occasionally issued warnings regarding the potential financial, legal, and operational as well as security related risks on the use of virtual currencies.⁶⁰ Despite these warnings, the RBI has also acknowledged the potential of blockchain in a white paper issued by the Institute for Development and Research in Banking Technology ('IDRBT').⁶¹ It stated:

"The 'blockchain' has a potential to fight counterfeiting and bring a huge revolution in the functioning of financial markets, collateral identification as well as payments system. The technology functions on the basis of a shared and secured public ledger system and is not operated by any central user. Instead, it is maintained by all the participants in the system on collective basis as per generally agreed and applied rules."⁶²

⁵⁶ Yuthika Bhargava, *Bitcoin Trade May Come Under SEBI*, July 12, 2017, available at <http://www.thehindu.com/business/Economy/bitcoin-affords-anonymity-in-grey-area/article19265595.ece> (Last visited on July 15, 2017).

⁵⁷ *SEBI v. Pan Asia Advisors Ltd.*, (2015) 14 SCC 71; *See* The Securities and Exchange Board of India Act, 1992, §11C (It states that in case of reasonable grounds to believe that any person (within/beyond India) associated with securities market has engaged in violation of any provision in the act, rules, regulations or directions issued, SEBI can order for an investigation and take action).

⁵⁸ *SEC v. Shavers*, No. 4:13-CV-416, 2013 WL 4028182; *See* Securities Exchange Act, 1934, §3(1)(10) (U.S.A.) (It mentions 'investment contracts' under 'security'. Scholars argue that if bitcoins are officially considered as 'securities' in US, they would come within the definition of investment contracts. In India, although 'investment contracts' do not form a part of 'securities', an instrument or unit issued by a collective investment scheme to its investors is a security); *See also* Tara Mandjee, *Bitcoin, its Legal Classification and its Regulatory Framework*, 15 J. BUS. & SEC. L. 157 (2016).

⁵⁹ *See* Jeffrey Alberts & Bertnand Fry, *Is Bitcoin a Security?*, 21 B.U. J. SCI. & TECH. L. 1 (2015) (For a detailed analysis pertaining to the stance of the USA on this topic).

⁶⁰ *See* Reserve Bank of India, *Press Release*, February 1, 2017, <https://rbidocs.rbi.org.in/rdocs/PressRelease/PDFs/PR205413F23C955D8C45C4A1F56349D1B8C457.PDF> (Last visited on May 3, 2017).

⁶¹ Institute for Development and Research in Banking Technology, *White Paper on Applications of Blockchain Technology to Banking*, January, 2017, available at <http://www.idrbt.ac.in/assets/publications/Best%20Practices/BCT.pdf> (Last visited on May 3, 2017).

⁶² *Id.*

However, a question can arise whether the Parliament under existing laws has the ability to prohibit the use of cryptocurrencies between willing parties. While Article 246 read with Article 248 of the Indian Constitution gives the power to the Parliament to frame laws regarding currency, legal tender, coinage and other similar instruments, an overall lack of regulatory understanding makes it imperative to demystify, albeit in brief, the prevailing regulatory structure regarding the use of cryptocurrencies.

B. BITCOIN: WHAT IS IT?

The interesting aspect of bitcoins and other cryptocurrencies is that they are highly versatile and have the ability to fit in more than one definition of law, creating a legal conundrum. Arguably, cryptocurrencies can be classified as a computer program, currency, good/commodity or derivative, depending upon their usage.

Due to its unique technical aspects, bitcoins, to a large extent, satisfy the modern definition of money, as it is a medium of exchange, a unit of account and store of value – the three prime essentials of money.⁶³ In the case of *United States v. Faiella*⁶⁴ and *SEC v. Shavers*,⁶⁵ the US courts went as far as asserting that bitcoins classify as money because of their ability to be easily purchased in exchange for legal tender.⁶⁶ However, despite satisfying the criterion listed above, certain shortcomings like high value volatility, low usage, etc. make it rather ‘unfeasible’ to utilise them in day to day transactions.

Presently, under the Foreign Exchange Management Act, 1999 (‘FEMA’), currency is defined to include currency notes, postal notes, postal orders, money orders, cheques, drafts, travellers cheques, letters of credit, acts of exchange and promissory notes, credit cards or such other similar instruments, as may be notified by the RBI.⁶⁷ Further, any currency which is not Indian currency is termed as foreign currency.⁶⁸ The RBI Act, also defines ‘foreign currency’ as having the same definition as given under the FEMA.⁶⁹ Classification of bitcoins as currency or not, assumes wide significance, because under the current regime, currencies are not subject to tax.⁷⁰ Bitcoins have as yet, not been notified by the RBI nor are they considered to be legal tender and hence, they do not fall under the definition of Indian currency.

⁶³ Canada Tax Foundation, *Rebooting Money: The Canadian Tax Treatment of Bitcoin and Other Cryptocurrencies*, January 10, 2015, available at <https://www.dwpv.com/assets/-/media/F28E60C148DB463DB31E0CF66008FD2A.ashx> (Last visited on June 14, 2017).

⁶⁴ *United States v. Faiella*, 39 F. Supp. 3d 544, 545, (S.D.N.Y., 2014).

⁶⁵ *SEC v. Shavers* No. 4: 13-CV 416, 2013 WL 4028182.

⁶⁶ *See United States v. Faiella*, 39 F. Supp. 3d 544, 545, (S.D.N.Y., 2014) (The court said “Bitcoin clearly qualifies as “money” or “funds” under these plain meaning definitions. Bitcoin can be easily purchased in exchange for ordinary currency, acts as a denominator of value, and is used to conduct financial transactions.”); *See also SEC v. Shavers*, 4: 13-CV 416, 2013 WL 4028182, ¶2 (The court stated that “It is clear that Bitcoin can be used as money. It can be used to purchase goods or services. [...] It can also be exchanged for conventional currencies [...]”).

⁶⁷ The Foreign Exchange Management Act, 1999, §2(h).

⁶⁸ *Id.*, §2(m).

⁶⁹ *Id.*, §2(bix).

⁷⁰ The Central Goods and Services Tax Act, 2017, §2(52) (It defines ‘goods’ as every kind of movable property other than money and securities but includes actionable claim, growing crops, grass and things attached to or forming part of the land which are agreed to be severed before supply or under a contract of supply).

Since the definition of ‘foreign currency’ under §2(m) of the FEMA specifies foreign currency as being any currency other than legal tender of India, much ambiguity arises due to the definition’s wide import, and some discussion on its possible implications is warranted for the sake of understanding. Does it include ‘private money’ having formal recognition in other countries, for instance, Germany recognises bitcoins as private money,⁷¹ or does it include currency which though not legally recognised, is widely used in another country? Can it be treated in a manner similar to Euro or United States Dollar?

The term ‘currency’ generally means the recognised tender of a particular country. Thus, ‘foreign currency’ refers to a currency accepted legally as a unit of account of some other country. Consequently, if cryptocurrencies are legally recognised as currency by another country, it would fall within the domain of this definition. Indeed, the inclusion of bitcoin within the ambit of the FEMA widely depends on the nature of bitcoins, its usage as well as the purpose for which it is used.

Further, it is also essential to note that as cryptocurrencies like bitcoins are nothing but a set of instructions expressed in codes, they also fall under the definition of ‘computer programme’ under Indian Copyright Act, 1957.⁷² In the landmark case of *Tata Consultancy Services v. State of Andhra Pradesh*,⁷³ the Hon’ble Supreme Court held that computer software/programs can be included within the definition of ‘goods’ for tax purposes if they have utility, are capable of being bought and sold and transmitted, transferred, delivered, stored or processed.⁷⁴ The Court cited that a software or program consists of various commands enabling the computer to perform a particular task and though the copyright remains with the originator, the moment the copies are made and marketed, they become goods which are susceptible to sales tax.⁷⁵

C. BITCOINS AS SECURITIES, DERIVATIVES

There is little doubt that the perceived value of bitcoins is subject to enormous volatility as compared to traditional currency. Such price volatility may, *prima facie*, give an illusion that it should be governed in the same manner as securities or derivatives.

The word ‘securities’ has been defined in §2(h) of the Securities Contracts (Regulation) Act, 1955 (‘SCRA’), to include, *inter alia*, shares, bonds, debentures, derivatives, government securities, and such other instruments as may be specified by the Central Government.⁷⁶ One of the essential feature of securities is that they must be issued by an ‘issuer’ (such as a public or private company), whereas cryptocurrencies are decentralised – meaning that they are not issued by any authority. Thus, they could, at the very best, be covered within the scope of definition only if they are specified by the Central Government as such. Furthermore, a ‘derivative’ under the SCRA means either of the two things – (i) security derived from debt

⁷¹ Emilie Spaven, *Germany Officially Recognises Bitcoin As "Private Money"*, August 19, 2013, available at <https://www.coindesk.com/germany-official-recognises-bitcoin-as-private-money/> (Last visited on September 26, 2017).

⁷² The Indian Copyright Act, 1957, §2(ffc).

⁷³ *Tata Consultancy Services v. State of Andhra Pradesh*, (2005) 1 SCC 308.

⁷⁴ *Id.*

⁷⁵ *Id.*, ¶17.

⁷⁶ The Securities Contracts (Regulation) Act, 1955, §2(h).

instrument, share, loan, risk instrument, contract for differences or any other form of security; or (ii) a contract which derives its value from the prices of underlying securities.⁷⁷ Derivatives are basically securities meant to aid and assist temporary hedging of risk in the price of either inventory holding or a financial commercial transaction.⁷⁸ There are two essential features of derivatives – (i) they do not hold any independent value i.e. the value is derived from an underlying asset and (ii) a derivative is a contract to hedge risk.⁷⁹ Apart from this, in practice, almost all derivatives have a fixed expiry date, as the value of the contract is dependent on this expiry period. It is difficult to see these features in cryptocurrencies since (i) cryptocurrencies have independent value and (ii) it is not a contract *per se*. Moreover, it does not fit within the definition prescribed under the SCRA.⁸⁰

IV. TAXATION OF CRYPTOCURRENCIES

The power to levy taxes is prescribed under Article 246 which grants power to the Parliament as well as state legislatures to impose taxes.⁸¹ Article 265 provides that no tax can be imposed or collected without the authority of law.⁸² By virtue of Constitution (One Hundred and First Amendment) Act, 2016, the Parliament made several amendments with respect to the imposition of Goods and Services Tax ('GST') including Article 246A, wherein exclusive power was given to the Parliament to make laws with regard to interstate trade and commerce.⁸³ Furthermore, Schedule VII lists the subject matters where Parliament and state legislatures can impose taxes.⁸⁴

Broadly speaking, any transaction involving bitcoins could be analysed from two viewpoints – income and expenditure. Depending upon the nature and parties to the transaction, it may be taxable under the Income Tax Act, 1961 ('ITA') (in case of income), or Central Goods and Services Tax Act, 2017 ('Act') and other laws (in case of expenditure). Since the regulatory framework regarding cryptocurrencies is uncertain, this paper tries to analyse the taxation (or non-taxation) by considering them as both goods and currency, two major approaches currently prevalent across the world.⁸⁵

A. TREATMENT UNDER INDIRECT TAX

⁷⁷ *Id.*, §2(ac).

⁷⁸ Siladitya Chatterjee, *Derivatives - A Conceptual Analysis*, (2007) 73 SCL 50 (MAG.).

⁷⁹ *Id.*

⁸⁰ *See* The Reserve Bank of India Act, 1934, §17(6A) (The term 'derivative' is defined to mean an instrument settled at a future date whose value is derived from the change in one or a combination of variables prescribed under the section, namely interest rate, price of securities (CG or SG or foreign securities), foreign exchange rates, index of rates, credit ratings, prices of gold or silver or bullion, or any other similar variable. However, since the value of cryptocurrencies is independent of these factors, it cannot be called as 'derivative' under the RBI Act).

⁸¹ The Constitution of India, 1950, Art. 245(1).

⁸² *Id.*, Art. 265.

⁸³ *Id.*, Art. 264A(2).

⁸⁴ *See id.*, Schedule VII, List I, *Union List*, Items 82-92B; *See also id.*, Schedule VII, List II, *State List*, Items 46-62.

⁸⁵ For instance, in Germany, Japan and United Kingdom, bitcoins are considered as private money whereas in countries like Australia and USA, it is considered as goods/property, *See* Part V of the paper (Evolving International Practices).

Nearly sixteen years since its proposal, GST was implemented with effect from July 1, 2017, across India. GST subsumes most of the indirect taxes, barring few.⁸⁶ Remarkably, the implications of GST on cryptocurrencies propel a fascinating discussion, since its technicalities render the indirect tax treatment of cryptocurrencies very complicated.

There are primarily two methods through which it is possible to attain bitcoins – through mining or by purchasing through bitcoin exchange.⁸⁷ Getting bitcoins through these methods warrant different tax implications under taxation laws of India, but first, it is essential to classify them as goods/property or money, as discussed earlier. If bitcoins were to be considered as money, they would be exempted from tax (discussed below). Hence, I will analyse the indirect tax structure considering bitcoins as goods or property.

Interestingly, treatment of bitcoins as goods/property would mean that supply of bitcoins is a ‘taxable supply’ and hence subject to GST. However, a supply of bitcoins as goods or property in exchange of other virtual/real goods should technically fall within the ambit of ‘barter transaction’ since bartering is simply an exchange of one good for other good/s. In its most ingenuous form, any barter transaction involves two essentials – (i) direct exchange of goods or services for other goods/services and (ii) no use of money.⁸⁸ Previously, under the various state VAT laws, the incidence of tax arose when there was sale of goods in exchange of cash, deferred payment, or any other valuable consideration.⁸⁹ The expression ‘any other valuable consideration’ provided a wide scope of ambiguity, since the term should typically derive reference, *ejusdem generis*, from its preceding terms (i.e. cash and deferred payment),⁹⁰ and therefore, must not include an exchange of goods for other goods. This view was accepted in the case of *Sales Tax Commissioner v. Ram Kumar Agarwal*,⁹¹ where a transaction of gold bullions in exchange for ornaments was excluded from the definition of sale under §2(h) of the Sale of Goods Act, 1930. However, the position is uncertain, as when a transaction is used as a device to conceal monetary consideration, courts may unravel the device to include it within the ambit of sale.⁹²

⁸⁶ Taxes such as basic custom duty (‘BCD’), stamp duties, road taxes and duties of excise on petroleum crude, high speed diesel, motor spirit (petrol), aviation turbine fuel and tobacco/tobacco products are excluded from the purview of GST. See Sharad Raghavan, *All you need to know about GST*, November 29, 2015, available at <http://www.thehindu.com/business/Industry/all-you-need-to-know-about-goods-and-services-tax/article7929788.ece> (Last visited on March 23, 2017).

⁸⁷ Anthony Volastro, *CNBC Explains: How to Mine Bitcoins on your Own*, January 23, 2014, available at <http://www.cnbc.com/2014/01/23/cnbc-explains-how-to-mine-bitcoins-on-your-own.html> (Last visited on June 13, 2017).

⁸⁸ George Dalton, *Barter*, 16 JOURNAL OF ECONOMIC ISSUES (2016) (discussing the essentials and intricacies of barter transactions).

⁸⁹ Pawan K. Aggarwal, *Incidence of Major Indirect Taxes in India*, 14–16, 1995, available at http://www.nipfp.org.in/media/medialibrary/2014/10/INCIDENCE_OF_MAJOR_INDIRECT_TAXES_IN_INDIA.pdf (Last visited on April 14, 2017).

⁹⁰ *Devi Dass Gopal Krishnan v. State of Punjab*, (1967) 20 STC 430.

⁹¹ *Sales Tax Commissioner v. Ram Kumar Agarwal*, (1967) 19 STC 400 All; See also *M Jaihind v. State of Kerala*, (1998) 111 STC 374; *CTO v. Kansari Udyog Sahakari Samiti*, (1979) 43 STC 176.

⁹² See *C Mohammedali v. State of Kerala*, (2010) 31 VST 427; *Dhampur Sugar Mills v. CTO*, (2006) 147 STC 57; *State of Tamil Nadu v. TMT Drill (P.) Ltd.*, (1991) 82 STC 59.

This set of issues does not invite much consideration after the implementation of GST, as tax under the Act is levied on *supply* of goods or services or both,⁹³ and ‘supply’ includes barter made or agreed to be made for a consideration in the course or furtherance of business.⁹⁴ Hence, there is no ambiguity that barter transactions will not be tax-free under GST. Three conditions may arise in such a scenario –

- a. Transactions involving exchange of cryptocurrencies,
- b. Transactions involving exchange of cryptocurrencies for goods and services, and
- c. Transactions involving exchange of cryptocurrencies for goods and services through intermediary.⁹⁵

Assuming that the parties to the transaction are registered and situated within India and supplies are subject to tax, any transaction involving exchange of cryptocurrencies for money or vice versa (scenario ‘a’) for which separate commission is charged as consideration, would invoke GST on the value of cryptocurrencies as well as on the commission charged. This is because an exchange of cryptocurrency would be included within the ambit of supply of goods for consideration⁹⁶ (first event of taxation) and commission would be the consideration for the provision of service⁹⁷ (second event of taxation).

In case of exchange of cryptocurrencies for goods and services (scenario ‘b’), GST would be chargeable on the transaction value. Hence, if ‘B’ purchases commodity ‘X’ in exchange for ten bitcoins from supplier ‘A’, the entire value of ten bitcoins would be subject to GST, value being determined as per the provisions of valuation under the Act (discussed later). Furthermore, in scenario ‘c’ where the intermediary acts as an agent to procure bitcoins from consumer ‘B’ in exchange for goods/services on behalf of ‘A’, two separate transactions occur providing normal currency to ‘A’ in lieu of those bitcoins. The first occurs between the receiver and the supplier and the second between the intermediary and the supplier, both separately chargeable under GST. In all these scenarios, if the supplier is not registered, tax would be payable on reverse charge basis by the recipient instead of the supplier, collecting the same on his behalf.⁹⁸

However, the procedure of taxation described above has some loopholes. An approach where cryptocurrencies are considered as goods means that certain transactions would be taxable twice – firstly on supply (otherwise exempted for a transaction in money) and secondly on consideration, unnecessarily leading to higher tax. This higher incidence of taxation puts the businesses operating in cryptocurrencies at a huge disadvantage while also diminishing their purchasing capacity. The issue gets further complicated if the supplier or the receiver resides outside the territorial limits of India, i.e., in international transactions.

⁹³ The Central Goods and Services Tax Act, 2017, §9(1).

⁹⁴ *Id.*, §7(1)(a).

⁹⁵ The Australian Taxation Office provides three possible instances where a transfer of bitcoins is a supply for GST purposes. See Australian Taxation Office, *Goods and services tax: the GST Implications of Transactions Involving Bitcoin*, August 20, 2014, available at <http://law.ato.gov.au/atolaw/view.htm?locid=%27DGS/GSTR2014D3/NAT/ATO/fp15%27&PiT=99991231235958#fp15> (Last visited on June 19, 2017).

⁹⁶ The Central Goods and Services Tax Act, 2017, §§7(1)(a), 2(52), 2(31).

⁹⁷ *Id.*, §2(61).

⁹⁸ *Id.*, § 9(4).

Another important question may arise regarding the valuation of cryptocurrencies. Usually, the worth of a digital currency could be determined by translating the value at a point of time into the relevant unit of account of the country. However, since bitcoin hardly fulfils a reliable ‘store of value’ function,⁹⁹ the market value may not be a true representation of assessable value. For instance, there may be a mismatch between the value of good(s) and the value of cryptocurrencies, or when the cost to one party does not necessarily reflect the value that the other party receives.

Under normal circumstances, §15 of the Act is attracted in cases where the price is actually paid or payable for the said supply and the parties to the transaction are not related.¹⁰⁰ However, in cases where the price is not the sole consideration for supply or supply is done for a consideration not entirely consisting of money, the Goods and Services Tax (Determination of Value of Supply) Rules, 2017, would apply. For a supply of goods and services done for a consideration not wholly in money, the value of such supply shall be its open market value.¹⁰¹ Accordingly, that value would be the transaction value which is listed on bitcoin price index at the date of issuance of invoice or the date of payment, whichever is earlier.¹⁰² Hence, if ‘X’ purchases bitcoins from ‘Y’ after issuance of invoice at a rate of 2000 BTC/USD on January 1, 2017, and makes payment for the same on July 10, 2017 (2600 BTC/USD), the transaction value would be determined on the basis of the rate prevailing at the time of issuance of invoice (which is earlier). Since cryptocurrencies are volatile in nature, a purchaser may affect invoice or make payment when the value is lower, thus leading to low collection of taxes. Furthermore, since it is a digital currency without any specific jurisdiction, issues regarding point of taxation, place of supply, etc. could arise. Needless to say, the Input Tax Credit (‘ITC’) may be available to the supplier as per the provisions of Chapter V of the Act.¹⁰³

Thus, analysis of the above provisions indicates that in dealing with the indirect tax structure concerning cryptocurrencies, major issues could arise, especially in respect of valuation of bitcoins for the purpose of GST, double taxation, etc. Factoring in technical aspects of cryptocurrencies like its value volatility, as discussed above, could therefore lead to serious issues without a consistent framework for its tax treatment. A conscious effort by the government to develop regulations specifically dealing with tax treatment of bitcoins is therefore vital and important in regulating this complex currency.

An alternative view considering cryptocurrencies as ‘currency’ and its treatment under GST may also be solicited, since bitcoin appears to fulfil the rudimentary requirements of ‘currency’,¹⁰⁴ and although not generally accepted at present, it may become the central medium

⁹⁹ In determining the ‘store of value’ function in bitcoins, it is essential to consider the volatility of such currency, since without predicting the future value, a user cannot store money for future purchases. See Max Kubát, *Virtual Currency Bitcoin in the Scope of Money Definition and Store of Value*, 30 *PROCEDIA ECONOMICS AND FINANCE* 409, 416 (2015).

¹⁰⁰ The Central Goods and Services Tax Act, 2017, §15(1).

¹⁰¹ The Goods and Services Tax (Determination of Value of Supply) Rules, 2017, Rule 1(a).

¹⁰² The Central Goods and Services Tax Act, 2017, §12(2).

¹⁰³ *Id.*, §§16-21 (ITC is available in all circumstances involving legal transactions. It is calculated by determining tax paid on purchases of inputs used for the purpose of output generated).

¹⁰⁴ Canada Tax Foundation, *supra* note 63, 12.

of exchange with the advancement of digital age in coming years.¹⁰⁵ Under the GST regime, a pure transaction in money does not attract GST since money (which includes foreign currency) is exempted from the definition of ‘goods’ under §2(52) of the Act as well as from the definition of ‘service’ under §2(102) of the Act. Furthermore, a supply of cryptocurrencies would also be included in the ‘Negative List’¹⁰⁶ as *inter se* sale or purchase of foreign currency among banks, among authorised dealers of foreign exchange, or among banks and such dealers is exempt from taxation.¹⁰⁷

It is to be noted that under GST, any supply of service by an unregistered person outside India to a registered person, would be taxable under the reverse charging mechanism (‘RCM’), specifically when service recipient is located in India.¹⁰⁸ Thus, supply of taxable bitcoin related services by foreign unregistered entities would attract RCM, meaning the recipient would be required to pay taxes. RCM requires the service recipient to pay taxes on the supply of goods/services to him instead of service provider, for which he is also required to get compulsorily registered.¹⁰⁹ Determining place of supply, in case of transactions carried virtually, has always been a major area of concern, since such transactions are equipped with high anonymity, particularly in case of cryptocurrencies,¹¹⁰ as the recipient is only required to disclose his bitcoin address while dealing with the service provider. Thus, unless voluntarily disclosed, compliance under the RCM by the recipient seems highly unlikely.

1. Mining of bitcoins: Service?

The previous discussion considers the tax treatment of bitcoins arising at the time of transfer. The next question which arises is that how is mining as an activity taxed under indirect taxes, or more importantly, whether it should be taxed at all. While considering this aspect, several issues arise relating to (i) parties to the transaction (ii) place of supply of the service (iii) consideration (iv) point of levy of tax, etc. It is necessary to deal with these issues.

Under the erstwhile service tax laws, ‘service’ meant any activity carried out by a person for someone else for consideration,¹¹¹ whereas a ‘person’ included, *inter alia*, individuals, HUFs, companies, firms, limited liability partnerships, body corporates, co-operative societies, local authorities and every artificial juridical person not covered within the scope of the definition.¹¹² These definitions have found recognition in GST too.¹¹³ The essential elements for taxing a service therefore includes (i) supply of taxable services, (ii) in furtherance of a business (iii) for a consideration and (iv) a benefit of service to be provided by a party (service provider)

¹⁰⁵ See Dominic Frisby, *Don't Let The Bankers Fool You: Bitcoin Is Here To Stay*, September 15, 2017, available at <https://www.theguardian.com/commentisfree/2017/sep/15/jp-morgan-ceo-wrong-bitcoin-jamie-dimon> (Last visited on September 26, 2017).

¹⁰⁶ See The Central Goods and Services Tax Act, 2017, Schedule III (Activities or transactions which shall be treated neither as supply of goods nor a supply of services).

¹⁰⁷ Previously excluded under The Finance Act, 1994, §66D(n).

¹⁰⁸ The Central Goods and Services Tax Act, 2017, §9(4).

¹⁰⁹ See *id.*, §2(98) (Definition of ‘reverse charge’); See also *id.*, §24 (Compulsory registration).

¹¹⁰ See Part II of the Paper for more details on anonymity of cryptocurrencies.

¹¹¹ The Finance Act, 1994, §65B(44).

¹¹² *Id.*, §65B(37).

¹¹³ See The Central Goods and Services Tax Act, 2017, §2(84) (‘person’); See also The Central Goods and Services Tax Act, 2017, §2(102) (‘service’).

in favour of another party (service receiver),¹¹⁴ unless any of these are specifically exempt under the Act. There must also be a *direct* link between the consideration and the service provided, based on a contractual relationship.

Assuming the mining activity is done in furtherance of business, any transaction of mining, *prima facie* appears to be a 'service' within the ambit of the Act, since it is a supply of computing power (service), by the bitcoin miner (service provider) to the users of bitcoin system (service recipient) in exchange for bitcoins.¹¹⁵ Here, though the recipient is not identifiable, it may be included within the ambit of the 'body of individuals' under §2(84) of the Act (definition of person) and accordingly, the value generated would be considered to be inclusive of GST. It is also essential to note that any activity performed without consideration is outside the ambit of 'supply' under GST. In cases of bitcoin mining, not every miner is rewarded with bitcoins for solving cryptographic algorithms, as mining is a competitive process whereby only successful miners are rewarded with new bitcoins. Thus, an unsuccessful supply of computing power would not be taxable under GST.

B. TREATMENT UNDER DIRECT TAX

The treatment of cryptocurrencies under direct tax regime is mainly governed by the ITA in India. Till date, the Income Tax Department ('ITD') has neither issued any guidance regarding taxation of digital currencies nor do any disclosure requirements exist in relation to such income earned. If bitcoins are considered as 'currency', they would not be susceptible to tax under ITA. This is because firstly, under the ITA, the definition of 'income' being an inclusive one, comprises of not only the 'natural' meaning but also the items mentioned under §2(24) of the ITA.¹¹⁶ But neither the natural meaning nor §2(24) of the ITA includes 'money' or 'currency' as income, although it includes 'monetary payment'. Secondly, being a mode of consideration, the tax incidence would be on the transaction and not on the currency.

On the other hand, if bitcoins are considered as goods/property, then clearly they would be either covered within the charging provision of 'Profit and Gains from Business and Profession'¹¹⁷ (in case of goods) or 'Income from Capital Gains'¹¹⁸ (property), depending upon whether it has been used for the purpose of business/profession or not. It must be noted that the ambit of the word 'income' is not restricted to the words 'profits' and 'gains' and anything which can appropriately be designated as 'income' is liable to be taxed under the ITA, unless expressly exempted.¹¹⁹

1. Treatment under the head 'Capital Gains'

¹¹⁴ *Id.*, §7(1)(a).

¹¹⁵ Canada Tax Foundation, *supra* note 63, 21.

¹¹⁶ CIT/CWT v. P.R.S. Oberoi, (1990) 183 ITR 103 (Cal.) ("The word 'includes' is often used in interpretation clauses in order to enlarge the meaning of the words or phrases occurring in the body of the statute."); *See also* Dooars Tea Co. Ltd. v. CAIT, (1962) 44 ITR 6 (SC) (The word 'income' is formidably wide and vague and its extent and sweep are not controlled or limited by the use of the words 'profits and gains').

¹¹⁷ The Income Tax Act, 1961, §28.

¹¹⁸ *Id.*, §45(1).

¹¹⁹ Maharajkumar Gopal Saran Narain Singh v. CIT, (1935) 3 ITR 237 (Bom.).

§2(14) of the ITA defines capital asset as “property of any kind held by the assessee whether or not connected with his business or profession”.¹²⁰ It excludes personal effects of the assessee i.e. movable property of any kind which pertains to the assessee’s person, where an intimate connection between the effects and the person of the assessee exists.¹²¹ This definition of ‘capital asset’ is of the widest amplitude and covers all kinds of property except those expressly excluded under the Act.¹²² Hence, any gains arising from the transfer of bitcoins must be considered as capital gains, if they have been held for the purpose of investment. Accordingly, while transferring cryptocurrencies, if the period of holding is more than thirty-six months, it would be long term capital asset taxable at such rates as prescribed under the ITA on such long-term capital gains ('LTCGs').¹²³ In all other cases, tax would be determined as per the provisions relating to short term capital gains ('STCGs').¹²⁴ In such a case, the cost of acquisition would be the market value prevailing at the time of creation/purchase of bitcoins and the surplus arising out of sale consideration over and above the cost of acquisition would be subjected to tax under §45 of the ITA.

Interestingly, in treating bitcoins as capital assets, a difficulty arises in determining the ‘cost of acquisition’ at the time of mining.¹²⁵ Since bitcoin is a ‘self-generated asset’ generated by the system as a reward for verifying the transactions, the cost of acquisition (‘COA’) is technically unascertainable as the only input the miner employs is the computer capacity under the system. In the case of *Commissioner of Income-tax v. B.C. Srinivasa Shetty* (‘B.C. Srinivasa Shetty’),¹²⁶ the Supreme Court held that where the COA is ‘indeterminable’, no capital gains would be chargeable on such costs. Under such a circumstance, there may be a possibility that the gain from sale of such bitcoins is exempt from tax. The ratio of that case was as follows –

“The mode of computation and deductions set forth in section 48 provide the principal basis for quantifying the income chargeable under the head "Capital gains". What is contemplated under section 48 is an asset in the acquisition of which it is possible to envisage a cost. [...] None of the provisions pertaining to the head "Capital gains" suggests that they include an asset in the acquisition of which no cost at all can be conceived. Yet there are assets which are acquired by way of production in which no cost element can be identified or envisaged. [...] A transaction to which those provisions cannot be applied must be regarded as never intended by section 45 to be the subject of the charge.”¹²⁷

¹²⁰ The Income Tax Act, 1961, §2(14).

¹²¹ Assistant Commissioner of Income-tax v. Faiz Murtaza Ali, (2012) 6 TMI 41; *See also* H.H. Maharaja Rana Hemant Singhji v. CIT, (1970) 77 ITR 1007 (Raj).

¹²² Commissioner of Income Tax v. B.C. Srinivasa Shetty, (1981) 2 SCC 460.

¹²³ *See* The Income Tax Act, 1961, §112 (The rate of tax for Long Term Capital Gains is twenty percent).

¹²⁴ In case of non-equity capital assets held for short term, Short Term Capital Gains on such funds are taxed as per the slab rates of individual investor.

¹²⁵ For computation of capital gains under the Income Tax Act, 1961, §§48-49, cost of acquisition shall be as determined under the Income Tax Act, 1961, §55.

¹²⁶ Commissioner of Income-tax v. B.C. Srinivasa Shetty, (1981) 2 SCC 460; *See also* R. Dalmia v. CIT, (1982) 133 ITR 169 (Delhi) (The High Court observed that, “Capital gains have to be included only at the time they are ascertained. If there are gains, they should be known”).

¹²⁷ *Id.*

In the case of *Evans Fraser & Co. Ltd. v. CIT*,¹²⁸ the Bombay High Court followed the principle laid down in *B.C. Srinivasa Shetty* and held that:

“since income chargeable to capital gains tax is to be computed by deducting from the full value of the consideration, the cost of acquisition of the capital asset and the cost of any improvement thereto, any gain arising out of the sale of goodwill would not be liable to the capital gains tax since the cost of improvement of any such goodwill cannot be ascertained.”¹²⁹

This view was also approved in *Bawa Shiv Charan Singh v. CIT*.¹³⁰ Although the above views appear to direct us to conclude that intangible capital assets whose value is not determinable, are outside the purview of the ITA, given the substantial gains arising at the time of mining, it is difficult to say that such gains would be exempt from tax for long. Indeed, a reference may be made to valuation officer under §55A of the Act to ascertain the fair market value at the time of creation of cryptocurrencies and that would constitute the COA of the capital asset.¹³¹

2. Taxability under 'Profit and Gains from Business and Profession'

The tax treatment of cryptocurrencies when held as 'stock in trade' is not subject to major difficulties, as the issues arising while treating it as capital gains do not arise when such cryptocurrencies are held in furtherance of business activity. Under §2(13) of the ITA, the definition of 'business' is inclusive in nature, and comprises of “trade, commerce or manufacture or any adventure or concern of such nature.”¹³² Undoubtedly, any continuous activity in nature of trade in cryptocurrencies is included within this definition, and profits realised are taxable thereunder, chargeable to tax as per §28 of the ITA.¹³³ Even though profits may not be realised in money, they are taxable even if they are 'in kind'. Also, any expenditure incurred for this purpose, such as purchase of computing power as capital asset, should be allowable as deduction in accordance with the provisions specified in §30 to §43D of the ITA.¹³⁴

Ordinarily, mining of bitcoins *per se* could be considered to be a taxable event under income tax laws and fair market value of bitcoins could be considered as taxable income. However, there exists some ambiguity regarding valuation of income at the time of mining and

¹²⁸ *Evans Fraser & Co. Ltd. v. CIT*, (1982) 137 ITR 493 (Bom.).

¹²⁹ *Id.*

¹³⁰ *Bawa Shiv Charan Singh v. CIT*, (1984) 149 ITR 29 (Delhi) (The Court while deciding in favour of the assessee observed that where the valuation of tenancy rights was under consideration, since the value depended upon a variety of facts such as locality, the success of the business, the trend of the customers, the likelihood of competition and so on and so forth and where it was not possible to predicate the exact rate or period of growth or the time of birth of such right, the cost of acquisition was not possible to be ascertained).

¹³¹ The Income Tax Act, 1961, §55A (With a view to ascertain Fair Market Value of capital asset, the Assessing Officer may refer the valuation of capital asset to Valuation Officer).

¹³² *Id.*, §2(13).

¹³³ *Id.*, §28 (Charging Provision provides a list of incomes that are chargeable to tax under the head 'Profits and Gains from Business and Profession').

¹³⁴ These provisions deal with expenditure allowed as deduction under §§30-37(1) as well as specific allowances and disallowances under the Income Tax Act, 1961.

as dealt in the later part of this paper, compliance with disclosure requirements is also a major problem.

As mentioned earlier, there is no ruling by the government on whether bitcoins are legal in India.¹³⁵ However, the illegality of bitcoins does not have any bearing on its taxability.¹³⁶ Indeed, income tax makes no distinction between illegal and legal income. Thus, even if cryptocurrencies are declared illegal, they would still be subject to tax under the ITA, despite the prosecution under the relevant law for illegal activities.

C. TAX EVASION AND ILLICIT ACTIVITIES

There are currently 810 currencies operating on at least 4,463 markets with the total market cap of around USD 390 billion.¹³⁷ This huge potential of currencies like bitcoin makes it a preferred destination for money laundering and terrorist financing, since its virtual nature makes it very difficult to trace the transactions to the source.¹³⁸ A recent example of this is the May 2017 worldwide cyberattack by a ransom cryptoworm called ‘WannaCry’, which locked up data in around 230,000 infected computers and demanded a ransom in bitcoins.¹³⁹ Instances like these are not uncommon among criminals and terrorists.¹⁴⁰ Thus, unless income is disclosed voluntarily or disclosure requirements are strictly enforced, it is hard to know if any income is being generated. Secondly, transactions take place across multiple jurisdictions, posing myriad difficulties in enforcement of the rules and regulations.

It has been pointed out by scholars that cryptocurrencies possess the traditional characteristics of ‘tax havens’, particularly because there is no specific jurisdiction in which they operate and are not subject to taxation at source.¹⁴¹ Furthermore, their operation is not dependent on the existence of financial intermediaries such as banks.¹⁴² As a result, traditional methods of curbing evasive practices such as imposing regulations on financial intermediaries, due diligence, monitoring and reporting norms, etc. may be totally ineffective. Transactions involving third party services located outside the jurisdiction (viz. bitcoin exchange services) may even escape the scrutiny of government entirely, encouraging money laundering and other malicious activities.¹⁴³ Such evasion is not unexpected, as the freedom to transact in bitcoins is latched with a major weakness – weak enforcement of law.

¹³⁵ Bhargava, *supra* note 53.

¹³⁶ CIT v. K. Thangamani, (2008) 309 ITR 15 (Madras), ¶22.

¹³⁷ *See supra* note 5.

¹³⁸ KUO CHUEN, *supra* note 35, 326.

¹³⁹ Samuel Gibbs, *WannaCry: Hackers Withdraw £108,000 Of Bitcoin Ransom*, August 3, 2017, available at <https://www.theguardian.com/technology/2017/aug/03/wannacry-hackers-withdraw-108000-pounds-bitcoin-ransom> (Last visited on September 30, 2017).

¹⁴⁰ David Carlisle, *Cryptocurrencies and Terrorist Financing: A Risk, But Hold the Panic*, March 2, 2017, available at <https://rusi.org/commentary/cryptocurrencies-and-terrorist-financing-risk-hold-panic> (Last visited on September 28, 2017).

¹⁴¹ O. Marian, *Are Cryptocurrencies Super Tax Havens?*, 112(19) MICH. LAW REV. 38–48 (2013).

¹⁴² *Id.*, 42.

¹⁴³ *See* Federal Bureau of Investigation, Directorate of Intelligence, *Bitcoin Virtual Currency: Intelligence Unique Features Present Distinct Challenges for Deterring Illicit Activity*, April 24, 2012, available at https://www.wired.com/images_blogs/threatlevel/2012/05/Bitcoin-FBI.pdf (Last visited on July 9, 2017).

Notably, the federal laws of USA have taken a bifurcated approach to money laundering¹⁴⁴ and terrorist financing¹⁴⁵ activities carried by means of virtual currencies, by introducing both regulatory measures and statutory penalties. The amended Bank Secrecy Act of 1970 ('BSA') in the USA, makes it compulsory for unregulated financial institutions to register themselves with the State.¹⁴⁶ Companies are required to file Current Transaction Reports ('CTR') and Suspicious Activity Reports ('SAR') in case of any possible violations.¹⁴⁷ Statutory penalties have also been imposed on money laundering, it being criminalised under the Money Laundering Control Act, 1986. In India, the prevalence of cryptocurrencies like bitcoin is gaining traction, albeit slowly.¹⁴⁸ Given the potential for tax evasion and the lack of proper regulatory oversight,¹⁴⁹ eliminating the risk of evasatory practices and keeping a tab on where funds of taxpayers are, would indeed be a challenge for the Indian government.

As stated earlier, compared to conventional cases of fraud and money laundering, evasion of taxes through cryptocurrencies is effortless for evaders due to its unique characteristics.¹⁵⁰ In that background, bitcoins are really just 'cold, hard cash'¹⁵¹ floating across the internet and a true feast for criminals to thrive upon. Conventional taxation norms are impractical in dealing with these next-generation financial assets, leading to utter failure in identifying users, detecting suspicious activities, or obtaining transaction records.¹⁵² Since the scheme of cryptocurrencies stems from its self-regulatory properties, making and enforcing laws aimed at self-disclosures seems to be our best bet at the moment. The European Union in its draft legislation has already established a precedent in this direction by calling for virtual currencies to 'not be anonymous' and obligating providers of exchange platforms and custodian wallet operators to monitor and identify suspicious activities.¹⁵³

¹⁴⁴ Money laundering is a process whereby funds obtained illegally are rendered clean so that they may be used for legal activities. Contrarily, terrorist financing is a similar process, the sole difference being that legal money is used for illegal activities. However, both are considered under the ambit of 'money laundering' under Prevention of Money Laundering Act, 2002, in India.

¹⁴⁵ See *id.*

¹⁴⁶ 31 U.S. Code §5330(a)(1) states 'money service business' ('MSB') be registered with Financial Crimes Enforcement Network (FinCEN). MSBs are persons doing business in the capacity of dealers in foreign exchange, check casher, issuer of traveller checks and money orders, money transmitters, US Postal Services and selling of prepaid access. See 31 C.F.R. §1010.100(ff) (U.S.A.).

¹⁴⁷ Kelsey L. Penrose, *Banking on Bitcoin: Applying Anti-Money Laundering and Money Transmitter Laws*, 18 N.C. BANKING INST. 529 (2013).

¹⁴⁸ As of last quarter of 2016, the number of bitcoin users were approximately 30,000. See J. P. Buntinx, *Over 30,000 People In India Use Bitcoin For Transactions*, August 19, 2016, available at <http://www.newsbtc.com/2016/08/19/30000-people-india-use-bitcoin-transactions/> (Last visited on July 13, 2017).

¹⁴⁹ The Hindu, *Plea in SC Seeks Curb On Cryptocurrencies*, July 16, 2017, available at <http://www.thehindu.com/news/national/plea-in-sc-seeks-curbs-on-cryptocurrencies/article19290260.ece> (Last visited on September 25, 2017).

¹⁵⁰ See Part II of this paper (Mechanics of Bitcoin) for more details).

¹⁵¹ Rosemary Westwood, *Why Bitcoin Is the Banking Industry's Newest, Biggest Threat*, January 2, 2013, available at <http://www.macleans.ca/economy/business/why-bitcoin-is-the-banking-industrys-newest-biggest-threat> (Last visited on September 28, 2017).

¹⁵² Thomas Slattery, *Taking a Bit out of Crime: Bitcoin and Cross-Border Tax Evasion*, 39 BROOK. J. INT'L L. 829, 874 (2014).

¹⁵³ KRIŠJĀNIS KARIŅŠ & JUDITH SARGENTINI, COMMITTEE ON ECONOMIC AND MONETARY AFFAIRS & COMMITTEE ON CIVIL LIBERTIES, JUSTICE AND HOME AFFAIRS, *Report on the proposal for a directive of the European Parliament and of the Council amending Directive (EU) 2015/849 on the prevention of the use of the financial*

Though there is no doubt that cryptocurrencies are superior alternatives to cash transactions, it is also to be noted that the practical issues relating to evasive practices arising from their use are not significantly different from those arising through cash transactions. In India, statutory penalties for such activities are already specified in the Prevention of Money Laundering Act, 2002 ('PMLA'), which prohibits direct or indirect attempts at laundering money¹⁵⁴ and specifies a punishment of a maximum of ten years of imprisonment.¹⁵⁵ Furthermore, India is an active member of the Financial Action Task Force ('FATF')¹⁵⁶ on money laundering and a signatory to the Convention of Mutual Administrative Assistance in Tax Matters as well as a range of other UN Conventions¹⁵⁷.

Nevertheless, the effective application of the PMLA to illegal transactions in cryptocurrencies is a grey area since it is unclear whether the reporting obligations prescribed under Chapter IV (Obligations of Banking Companies, Financial Institutions and Intermediaries) of the PMLA would extend to wallet operators or bitcoin exchanges or any third party bitcoin services.¹⁵⁸ If such obligations do not extend to these entities, the Directorate of Enforcement (investigative arm in such cases) would be unable to legally access, survey, search or seize information, an essential aspect to enforce the PMLA and impose penalties. India is also a signatory to the Foreign Account Tax Compliant Act ('FATCA') and Common Reporting Standards ('CRS'),¹⁵⁹ norms which obligate reporting financial institutions ('RFI')¹⁶⁰ to maintain and report information in respect of reportable accounts to combat offshore tax evasion. However, even here, a third-party bitcoin service or an exchange/wallet operator may not come within the purview of a RFI, which only includes custodial institutions (viz. CDSL or NSDL), depository institutions (banks, credit unions, etc.), investment entities (such as NBFCs) or specified insurance companies.¹⁶¹

system for the purposes of money laundering or terrorist financing and amending, Directive 2009/101/EC (COM (2016)0450 – C8-0265/2016 – 2016/0208(COD)) (March 9, 2017).

¹⁵⁴ The Prevention of Money Laundering Act, 2002, §3.

¹⁵⁵ *Id.*, §4.

¹⁵⁶ Financial Action Task Force was established in 1989 by the G-7 Summit in Paris to develop a coordinated international response to money laundering.

¹⁵⁷ India is a signatory to International Convention for the Suppression of the Financing of Terrorism (1999), UN Convention Against Transnational Organized Crimes (2000), UN Convention Against Corruption (2003).

¹⁵⁸ See The Prevention of Money Laundering Act, 2002, §2(1)(wa) (A reporting entity includes a banking company, financial institution, intermediary or a person carrying on a designated business or profession; See also The Prevention of Money Laundering Act, 2002, §2(1)(sa) (It defines 'persons carrying on a designated business or profession'. Obviously, a bitcoin exchange/wallet operator is not a banking company or financial institution and is also not a 'person carrying a designated business or profession as per the definition prescribed under the Act (which includes real estate agents, dealers in precious metals or high value goods, persons engaged in safekeeping of cash and liquid securities, activities for playing games of chance and activities as may be specified by Central Government from time to time)).

¹⁵⁹ See The Income Tax Act, 1961, §285BA (India is a joining party to a currently 100-member states strong Multilateral Competent Authority Agreement which implements exchange of information based on CRS norms. As at August 1, 2017, it has signed a bilateral agreement with fifty-three countries for exchange of information. It has also signed Inter-Governmental Agreement with USA for the implementation of FATCA in India).

¹⁶⁰ The Income Tax Rules, 1962, Rule 114F(7) (Reporting Financial Institution, as defined in this rule, means a financial institution which is resident in India, but excludes any branch of such institution that is located outside India and any branch of a financial institution which is not resident in India, if that branch is located in India).

¹⁶¹ *Id.*, Rule 114F (3).

It is apparent that the obstacle to tax compliance here is not the lack of statutory provisions but the inability of the government to recognise a tax event and then enforce laws on it. Even the strenuous principles of international taxation through their system of bilateral tax arrangements, fail to provide an answer to the complex electronic transactions such as this, where multiple jurisdictions coupled with the prospect of anonymity are involved.¹⁶² It is recommended, therefore, to establish institutions based on mutual consensus and improved co-operation of several taxing jurisdictions in information sharing to tackle this emerging threat. Possible measures also include imposing a taxable event on conversion of virtual currencies into fiat currencies, mandatory licensing of businesses in virtual currencies,¹⁶³ or reporting norms to gather information at every purchase of tangible/intangible goods through bitcoins. Concerns over the abuse of this novel technology will only increase with time and the government will need to be wary of the disruptions it could bring to the erstwhile law enforcement. Working alongside other jurisdictions and being a step ahead in combatting crypto-crime is what is required, should India wish to utilise the unlimited potential of FinTech to its advantage.

V. EVOLVING INTERNATIONAL PRACTICES

The increasing acceptance of cryptocurrencies has raised eyebrows throughout the world. A number of jurisdictions have introduced legislations to establish framework regarding regulation of cryptocurrencies.¹⁶⁴ Conflicting positions have been adopted by different countries, with some considering bitcoins as ‘money’ or ‘unit of account’ thereby exempting charge to tax, and others as ‘capital property’, consequently chargeable to capital gains tax. The USA FinCEN (Financial Crimes Enforcement Network), being at the forefront of regulation of cryptocurrencies, issued a guidance on regulating decentralised virtual currencies bringing them within the ambit of the Bank Secrecy Act, 1970.¹⁶⁵ As per the US Internal Revenue Service (‘IRS’), cryptocurrencies are treated as property for the purpose of federal tax.¹⁶⁶ Germany formally recognised bitcoins as units of account allowing them to be used for tax and private

¹⁶² See Kyrie E. Thorpe, *International Taxation of Electronic Commerce: Is the Internet Age Rendering the Concept of Permanent Establishment Obsolete?* 11 EMORY INT'L L. REV. 633, 634 (1997).

¹⁶³ A similar framework is being pursued by New York State Department of Financial Services (NYDFS) to regulate bitcoins.

¹⁶⁴ See Shri R. Gandhi, Deputy Governor, Reserve Bank of India, Inaugural speech at the FinTech Conference (March 10, 2017), available at https://rbi.org.in/scripts/BS_ViewBulletin.aspx?Id=16773 (Last visited on July 1, 2017).

¹⁶⁵ FinCEN, *Application of FinCEN's Regulations to Persons Administering, Exchanging, or Using Virtual Currencies*, March 18, 2013, available at <https://www.fincen.gov/resources/statutes-regulations/guidance/application-fincens-regulations-persons-administering> (Last visited on July 2, 2017) (As per this guidance, administrators of bitcoins are subjected to regulation as ‘Money Services Business’ (MSB) under the Bank Secrecy Act).

¹⁶⁶ United States Government Accountability Office, *Virtual Economies and Currencies: Additional IRS Guidance Could Reduce Tax Compliance Risks*, May, 2013, available at <http://www.gao.gov/assets/660/654620.pdf> (Last visited on May 12, 2017) (The Internal Revenue Service seems to have adopted the Glenshaw Glass rule (given in the case of *Commissioner v. Glenshaw Glass Co.*, 348 U.S. 426 (1955)) in treating bitcoins as property. Glenshaw rule provides a three-fold test to determine whether a gain in income is taxable, the three factors being accession of wealth, realisation and complete dominion of wealth).

trading purposes throughout the country.¹⁶⁷ In the United Kingdom ('UK'), they are classified as an asset or private money, on which capital gains tax is applicable, but VAT is exempted.¹⁶⁸ The UK Government also intends to bring digital currency exchange firms within the ambit of anti-money laundering regulations.¹⁶⁹

While including bitcoins within the ambit of tax seems necessary, some countries have excluded bitcoins for tax purposes to encourage its trading. For instance, Japan exempted the supply of virtual currencies such as bitcoin from Japanese Consumption Tax ('JCT') since July 1, 2017, which was earlier charged at the rate of eight percent.¹⁷⁰ Previously, Japan had recognised digital currencies as 'real money', in order to promote innovative financial services like 'FinTech'.¹⁷¹ The treatment of cryptocurrencies in Japan could serve as a catalyst for widespread adoption of bitcoins as a medium of exchange.¹⁷²

In Australia, digital currencies were previously considered 'intangible property' and were therefore subject to GST.¹⁷³ However, this resulted in cascading effect of taxes, as consumers transacting in digital currencies had to bear GST twice, first, on purchase of digital currency and second, on exchange of digital currency for other goods and services. As promised in the Budget 2017-18 released by the Department of Treasury,¹⁷⁴ the Government on September 14, 2017, introduced a legislation to exempt digital currencies from the purview of GST retrospectively from July 1, 2017, allowing it to be treated 'just like physical money' for GST purposes.¹⁷⁵

A discussion on cryptocurrencies and its regulatory framework is incomplete without China, which is the biggest market of cryptocurrencies in the world. Due to excessive

¹⁶⁷ Charles Arthur, *Bitcoin now 'Unit Of Account' in Germany*, August 19, 2013, available at <https://www.theguardian.com/technology/2013/aug/19/bitcoin-unit-of-account-germany> (Last visited on July 2, 2017).

¹⁶⁸ Pete Rizzo, *UK Eliminates Tax on Bitcoin Trading, Publishes Official Guidance*, March 2, 2014, available at <http://www.coindesk.com/top-uk-tax-agency-eliminate-20-levy-bitcoin-trading/> (Last visited on June 23, 2017).

¹⁶⁹ HM Treasury, *Action Plan For Anti-Money Laundering And Counter-Terrorist Finance*, 18-19, April, 2016, available at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/517992/6-2118-Action_Plan_for_Anti-Money_Laundering__web_.pdf (Last visited on June 24, 2017).

¹⁷⁰ Joseph Young, *It's Official: Japan Has Eliminated Tax on Bitcoin, Rise in Trading Expected*, July 3, 2017, available at <https://cointelegraph.com/news/its-official-japan-has-eliminated-tax-on-bitcoin-rise-in-trading-expected> (Last visited on July 10, 2017).

¹⁷¹ Kyodo, *Japan OKs Recognizing Virtual Currencies As Similar To Real Money*, March 4, 2016, available at <http://www.japantimes.co.jp/news/2016/03/04/business/tech/japan-oks-recognizing-virtual-currencies-similar-real-money/#.WWnDLoh97IU> (Last visited on June 11, 2017).

¹⁷² Tom Rees, *Regulating Bitcoin: How New Frameworks Could Be A Catalyst For Cryptocurrencies*, April 16, 2017, available at <http://www.telegraph.co.uk/business/2017/04/16/regulating-bitcoin-new-frameworks-could-catalyst-cryptocurrencies/> (Last visited on May 4, 2017).

¹⁷³ See Australian Taxation Office, *Goods And Services Tax: The GST Implications Of Transactions Involving Bitcoin*, August 20, 2014, available at <http://law.ato.gov.au/atolaw/view.htm?locid=%27DGS/GSTR2014D3/NAT/ATO/fp15%27&PiT=99991231235958#fp15> (Last visited on June 19, 2017).

¹⁷⁴ Department of Treasury, Government of Australia, *Budget 2017-18*, available at http://www.budget.gov.au/2017-18/content/glossies/factsheets/html/FS_innovation.htm (Last visited on July 4, 2017); William Suberg, *Bitcoin To Become 'Just Like Money' In Australia July 1*, available at <https://cointelegraph.com/news/bitcoin-to-become-just-like-money-in-australia-july-1> (Last visited on June 5, 2017).

¹⁷⁵ Department of Treasury, Government of Australia, *Press Release*, September 14, 2017, available at <http://sjm.ministers.treasury.gov.au/media-release/089-2017> (Last visited on September 28, 2017).

foreign investment limitations to access international markets, an alternative investment opportunity is provided to its citizens through bitcoin trading.¹⁷⁶ Although no regulation governs cryptocurrency in China, the Government has taken an aggressive stance towards digital currencies. Recently, the People's Bank of China conducted on-site inspections of bitcoin exchanges and plans to impose penalties on these exchanges for violating upgraded norms related to anti-money laundering.¹⁷⁷ However, despite heightened control, the use of cryptocurrencies has not faltered much,¹⁷⁸ giving good proof that strict regulation and excessive control is not the answer, as far as cryptocurrencies are concerned.

Given the monumental rise in cryptocurrencies and its obvious role in financial technology in the coming years,¹⁷⁹ the question is not whether India should adopt a regulatory framework or not; the relevant question in this regard is which regulatory framework would be best suited to India and its underlying need for economic growth and financial inclusion. A perfect regulatory success would be to regulate bitcoins in a manner that permits a reasonable balance between consumer security and legitimacy. This sandbox approach will ensure financial innovation and transparency and give a boost to economic growth, all of which are primary objectives of the Government,¹⁸⁰ while at the same time ensuring regulatory bottlenecks and compliance costs are not too much to deter businesses from participating in FinTech in India. The robust nature of blockchain make regulation in this area inevitable, sooner or later. Recently, a major news agency reported that the RBI is considering the creation of a 'fiat cryptocurrency' (apparently called 'Lakshmi') as an alternative to Indian Rupee for transactions carried out electronically.¹⁸¹ It is stated that such moves are counterintuitive, as bitcoin was established for the exact purpose of depriving the government and central bank of their regulatory supervision.¹⁸²

In my opinion, the Australian/Japanese approach to taxation of cryptocurrencies would be a suitable model to adopt for India, if it aims to become a global FinTech hub in years to come. Australia legitimises bitcoin trading and treats it as money for GST purposes,¹⁸³ while Japan excludes bitcoins from its previous eight percent JCT.¹⁸⁴ Currently, regulatory

¹⁷⁶ Gautham, *China, Driving the Bitcoin Wagon with BitMex and Others*, December 5, 2015, available at <http://www.newsbtc.com/2015/12/05/china-driving-bitcoin-wagon-withbitmex/> (Last visited on June 2, 2017).

¹⁷⁷ Kevin Helms, *Regulations for Chinese Bitcoin Exchanges Expected in June, Withdrawals Could Soon Follow*, May 11, 2017, available at <https://news.bitcoin.com/regulations-chinese-bitcoin-exchanges-expected-june-withdrawals-follow/> (Last visited on June 5, 2017).

¹⁷⁸ Bill Birtles, *Beijing's Moves to Reign In Bitcoin Aren't Deterring China's New Crypto-Currency Kings*, April 17, 2017, available at <http://www.abc.net.au/news/2017-04-17/chinas-new-cryptocurrency-kings-not-fazed-by-regulation/8447094> (Last visited on June 4, 2017).

¹⁷⁹ World Economic Forum, *The Future of Financial Infrastructure - An Ambitious Look At How Blockchain Can Reshape Financial Services*, August, 2016, available at http://www3.weforum.org/docs/WEF_The_future_of_financial_infrastructure.pdf (Last visited on September 30, 2017).

¹⁸⁰ Vikas Dhoot, *Regulators Shouldn't Restrain Innovation*, July 29, 2017, available at <http://www.thehindu.com/todays-paper/tp-business/regulators-shouldnt-restrain-innovation/article19382071.ece> (Last visited on September 29, 2017).

¹⁸¹ The Economic Times, *Another Experiment with Currency? RBI is looking at its own Bitcoin*, September 16, 2017, available at <http://economictimes.indiatimes.com/news/economy/policy/another-experiment-with-currency-rbi-is-looking-at-its-own-bitcoin/articleshow/60710700.cms> (Last visited on September 29, 2017).

¹⁸² Nakamoto, *supra* note 6, ¶1.

¹⁸³ *Supra* note 175.

¹⁸⁴ *See supra* text accompanying notes 169-171.

uncertainties and a fairly repulsive approach to innovative entrants by the Government in banking, financial services and insurance sector ('BFSI') is a major barrier for cryptocurrencies. Furthermore, a benevolent yet firm stand on blockchain and other alternative technologies also aligns with the interest of the Government in providing digital substitutes to evasive cash transactions. A study estimates that India already provides the highest return on FinTech investments at an expected return on investment of twenty-nine percent, well ahead of its global counterparts.¹⁸⁵ Easing the high entry barriers in BFSI would convalesce competition and benefit consumers, while also advancing the goal of financial inclusion.

Dr. Raghuram Rajan, the former Governor of the RBI while explaining the philosophy of RBI to stay clear of danger through innovation in financial sector until development of a clear understanding quoted a Chinese saying, "Cross the river while feeling the stones".¹⁸⁶ The time for cryptocurrencies is ripe and taking cue from previous governors, we can only expect regulators to take a positive step in regulating cryptocurrencies, while taking 'some' risks in the interests of the nation.

VI. CONCLUSION

In India, approximately one-fifth of the population remains unbanked.¹⁸⁷ For individuals not having access to basic credit facilities, banking alternatives such as virtual currencies could provide an unparalleled solution due to their universal access, low transaction costs, and secured infrastructure.¹⁸⁸ Friedrich Hayek, economist and Nobel laureate said, "Good money can come only from self-interest, not from benevolence (of government)".¹⁸⁹ In actuality, it seems perfectly logical for digital currencies to overcome traditional currency in the long run. The growth of bitcoins as a 'near-perfect' alternative to the prevailing issues in fiat currency makes it evident that legal uncertainty and the unstructured taxation (or non-taxation) regime will only affect the interests of entrepreneurs, investors and miners in India, not to mention the money laundering, terrorist financing and offshore tax havens.

In comparison to other forms of legislations, the laws of taxation should continuously evolve to discourage evasive practices. Although the success of bitcoins as a medium of exchange is not factual, it seems highly promising and revolutionary and therefore demands serious thought. Unlike major economies, India is yet to come up with a regulation to govern cryptocurrencies, let alone to determine its tax consideration. Implementation of General Anti Avoidance Rules should empower the Department to some extent to review arrangements in cryptocurrencies entered for tax avoidance purposes. It is proposed that KYC norms/anti-money laundering standards currently applicable to financial institutions and banks be extended to

¹⁸⁵ PWC, *Redrawing the Lines: FinTech's Growing Influence on Financial Services*, 2017, available at <https://www.pwc.com/gx/en/industries/financial-services/assets/pwc-global-fintech-report-2017.pdf> (Last visited on October 2, 2017).

¹⁸⁶ Dr. Raghuram G. Rajan, Ex-Governor, Reserve Bank of India, Keynote Address at the 4th C.K. Prahalad Memorial Lecture, Mumbai: Sustainable Growth in the Financial Sector (September 18, 2015), available at https://rbi.org.in/scripts/BS_SpeechesView.aspx?Id=976 (Last visited on October 1, 2017).

¹⁸⁷ EY-ASSOCHAM KNOWLEDGE REPORT, *Evolving Landscape of Financial Institutions in India*, July, 2016, available at [http://www.ey.com/Publication/vwLUAssets/ey-evolving-landscape-of-microfinance-institutions-in-india/\\$FILE/ey-evolving-landscape-of-microfinance-institutions-in-india.pdf](http://www.ey.com/Publication/vwLUAssets/ey-evolving-landscape-of-microfinance-institutions-in-india/$FILE/ey-evolving-landscape-of-microfinance-institutions-in-india.pdf) (Last visited on June 12, 2017).

¹⁸⁸ Scott, *supra* note 9.

¹⁸⁹ HAYEK, *supra* note 1, 131.

bitcoin exchanges and wallet operators, as they remain the point of transaction in most cases.¹⁹⁰ The structure of taxation prescribed in this paper overviews direct and indirect taxation in both circumstances; cryptocurrencies being considered as goods/commodities and currency. However, much remains to be answered still, given the statelessness of the internet and the spectral character of bitcoins.

Nevertheless, given what the future holds for bitcoins and blockchain technology, there is no better time than now to establish clear rules and regulations both in relation to regulatory aspects and taxation, to subsequently ensure their stability and security.

¹⁹⁰ See Reserve Bank of India, Master Circular, *Know Your Customer (KYC) norms/Anti-Money Laundering (AML) standards/Combating of Financing of Terrorism (CFT)/Obligation of banks under Prevention of Money Laundering Act, (PMLA), 2002, RBI/2014-15/70* (Issued on July 1, 2014), available at https://www.rbi.org.in/scripts/bs_viewmascirculardetails.aspx?id=9031#MC (Last visited on June 2, 2017) (For more information on applicability of KYC/AML norms).