Technology Fountain: Digital currency.

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Introduction
There are various innovative money payment systems in the market today, many of which are built on platforms like the mobile phone, the Internet, and the digital storage card. These alternative payment systems have seen encouraging or even continued growth, from the likes of PayPal, Apple Pay, Google Wallet, Alipay, Ten pal, Venmo, M-Pesa, BitPay, Moven, BitPesa, Pay Lah!, Dash, FAST, Transfer wise, and others. Beyond payment systems that are based on fiat currency, the growing use of digital currency allows for faster, more flexible, and more innovative payments and ways in financing goods and services. One digital currency, however, stands out among the rest. Bit coin is one of the most well-known digital currencies today. To be specific, Bit coin is a crypto currency, which is a subset of what is generally known as a digital currency. Bit coin is a unique crypto currency that is widely considered to be the first of its kind. Like many created after it, Bit coin uses the power of the Internet to process its transactions.

Meaning of Digital Currency:
Digital currency is a payment method which exists only in electronic form and is not tangible. Digital currency can be transferred between entities or users with the help of technology like computers, smart phones and the internet. Although it is similar to physical currencies, digital money allows borderless transfer of ownership as well as instantaneous transactions. Digital currencies can be used to purchase goods and services but can also be restricted to certain online communities such as a gaming or social networks. Digital currency is also known as digital money and cyber cash.

Digital currency (digital money or electronic money or electronic currency) is a type of Currency available only in digital form, not in physical (such as banknotes and coins). It exhibits properties similar to physical currencies, but allows for instantaneous transactions and borderless transfer-of-ownership. Examples include virtual currencies and crypto currencies or even central bank issued "digital base money". Like traditional money, these currencies may be used to buy physical goods and services, but may also be restricted to certain communities such as for use inside an on-line game or social network. Digital currency is a money balance recorded electronically on a stored value card or other device. Another form of electronic money is network money, allowing the transfer of value on computer networks, particularly the Internet. Electronic money is also a claim on a private bank or other financial institution such as bank deposits.

Apart from traditional currency or real currency, there’s another kind called digital currency. On a broader level, it is an electronic based currency holding similar attributes of a real currency, involving prompt payment and transaction settlement. There are two forms of digital currency: Virtual currency and crypto currency

Definition of Virtual Currency
European Central Bank defined virtual currency as "a type of unregulated, digital money, which is issued and usually controlled by its developers, and used and accepted among the members of a specific virtual community".

The European Banking Authority defined virtual currency as "a digital representation of value that is neither issued by a central bank or a public authority, nor necessarily attached to a fiat currency, but is accepted by natural or legal persons as a means of payment and can be transferred, stored or traded electronically".

CRYPTOCURRENCY

Crypto Currency is a form of digital money that is designed to be secure and, in many cases, anonymous. It is a currency associated with the internet that uses cryptography, the process of converting legible information into an almost untraceable code, to track purchases and transfers. Cryptography was born out of the need for secure communication in the Second World War. It has evolved in the digital era with elements of mathematical theory and computer science to become a way to secure communications, information and money online. The most popular crypto currency is Bit coin (BTC). Others, less popular, include Atcoin, Litecoin, Peercoin, Namecoin, etc. Bit coin was developed in 2009 by a programer code-named Satoshi Nakamoto, as a sophisticated algorithm with which no one can interfere. One Bit coin is one coin which has to be “mined.” The mining takes place upon connecting a computer to the network – the Internet mine (e.g. BTCguild.com, Deepbit.net, Polmine.pl, Mining. bitcoin.cz). A computer, using the capacity of its processor, generates digital coins. The process of coin minting and drawing will be completed sometime around 2035, when 21 million Bit coins will have been made.

Crypto currency in its purest form is a peer-to-peer version of electronic cash. It allows online payments to be sent directly from one party to another without going through a financial institution. The network time-stamps transactions using cryptographic proof of work. The proof of work Bit coin protocol is basically a contest for decoding and an incentive to reward those who participate. For Bit coin, first participant to crack the code will be rewarded with the newly created coins. This contest will form a record of the transactions that cannot be changed without redoing the proof of work. Crypto currency is a subset of digital currency. Examples of the many digital currencies are airline miles issued by airlines, game tokens for computer games and online casinos, Brixton Pound to be spent only in the Brixton local community in the Greater London area, and many other forms that can be exchanged for virtual and physical objects in a closed system and, in the case an open system, exchanged for fiat currency. At that stage, it would no longer need to convert it to fiat, thus you would need no exchanges, because get paid in it and pay in it, making it effectively like dollars, with the added quality of non-inflatable away as the banks. All two of the above are complemented by the fact that Bitcoin Cash is basically just code. Therefore, the currency can be coded to behave in certain ways and under certain conditions, something now called smart contracts.

Virtual Currency vs. Crypto Currency

There’s a lot of misunderstanding around the terms “virtual” and the “digital, and the people often mistakenly use them interchangeably. The reality is that Virtual Currencies are a type of digital currency, meaning that all virtual currencies are digital, but converse is not true. Crypto
currencies like Bit coin are the type of digital currency, but they are in separate category from
digital ones. Other type of digital currency also exit, and understanding which is which can be confusing.

Digital currency is largely backed and regulated by the Central Bank, more like electronic money. Virtual currency, on the other hand is unregulated and decentralized. Financial Crimes Enforcement Network’s ruling on ‘Application of FinCen’s regulations to virtual currency mining operations ’ clarifies that virtual currency is a medium of exchange that operates like a currency in some environments but does not have all the attributes of a real currency. It does not hold any legal tender status anywhere. Similar view was expressed in European Central Bank’s publication, ‘Virtual Currency Schemes’. Bit coins could be termed as virtual currency. They are decentralized, unregulated and have few attributes of a real currency. Then there are cryptocurrencies and non-crypto currencies.

Since, bitcoin is purely based on crypto-graphical system, where you have a private and a public key, and each transaction gets recorded on the ledger, it is said to come under the definition of crypto-currency.

Decentralized Currency: Currency is further classified into centralized and decentralized. Those which are governed by a central repository or a designated entity for sake of trust over transactions taking place are termed as centralized currency.

DIGITAL CURRENCY AS ALTERNATIVE CURRENCY “Digital” versus “virtual”
Although digital and virtual are often used interchangeably when describing currencies based on an electronic medium, the term “virtual” has a negative connotation. “Virtual” signals something that is “seemingly real” but not exactly “real” when referring to a currency that is stored in a “digital” or electronic register. Indeed, in languages like Chinese, the word “virtual” is interpreted as “created from nothing” in the sense that it is not “physical” but computer generated or computer-simulated. However, the currencies often described as “virtual” are very “real,” in the sense that they exist. Thus, the more neutral term digital currency is generally preferred over virtual currency.

Classifying alternative currencies
Alternative currencies refer to a medium of exchange other than fiat currency. Historically, there are various types of alternative currencies, as classified by Hileman (2014) broadly into two categories: tangible and digital. Tangible currencies, closely associated with “commodity money,” derive their value from relative scarcity and nonmonetary utility:

(a) Currencies with intrinsic utility This class of currency includes metals and cigarettes in post-WWII Berlin and more contemporary examples are prepaid phone cards and, to some extent, cash value smart cards. This class is not dependent upon governance as in the case of monetary instruments, and more importantly, its intrinsic value is not an abstraction and it is not necessarily geographically bound.

(b) Token Seventeenth- to nineteenth-century British tokens and the Great Depression scrip of the 1930s are historical examples. More contemporary examples are local or community currencies such as Brixton Pound and Bristol Pound that are used in England, Berkshires that is circulated in Berkshire region of Massachusetts, and Salt Spring Dollar in Canada. Token has
less intrinsic value as its use is more specific and usually bounded by some social contracts or agreement such as honoring them for exchange for goods or to limit the supply of goods.

(c) **Centralized digital currency** Examples are loyalty points from financial, telecom, or retail companies; air miles from airlines; Second Life’s Linden Dollar and World of Warcraft Gold, which are closed system with transactions within specific entities; and Flooz and Beenz, which are open market system and can be transacted with other entities. Local currencies such as Brixton Pound, Berk Shares, and Salt Spring Dollar also fall under this category besides being classified as tokens. The governance structure is centralized.

(d) **Distributed and/or decentralized digital currency** this includes the crypto currencies such as Bit coin, Lit coin, and Dogecoin. They can be transacted with any outside agents and the governance is decentralized mainly but not necessary due to open-source software. There is no legal entity responsible for the activities, and therefore, they fall outside traditional regulation.

**Other Forms of Crypto -currency/ Virtual currency:** Bit coins are the most sought after crypto currency in the market. However there are several other currencies which have gained momentum ever since the concept has been introduced. Below is some other of crypto currencies that exist:

1. **Ethereum** – Ethereum is the second most famous name in the virtual currency market. It somewhat similar to the concept of bit coins however it possesses some additional attributes. It is purely a block chain based platform. What makes it special is the Ethereum Virtual Machine. Bit coin block chain is used to track ownership of digital currency (bit coins), the Ethereum block chain focuses on running the programming code of any decentralized application.

2. **Ripple** – Ripple is more in the nature of a payment protocol created and developed by a company named Ripple, which is based on the concept of Real time Gross Settlement. It was initially released in the year 2012. Ripple is based around a shared, public database or ledger, which uses a consensus process that allows for payments, exchanges and remittance in a distributed process.

3. **NEM** – Similar to bit coin, NEM is also a peer-to-peer block chain platform launched in the year 2015. It uses the unique Proof-of-Importance algorithm, a way to validate transactions and achieve the distributed consensus.

4. **Lit coin** – Initially introduced in the year 2011, lit coin is mostly identical to bitcoin. Litcoin is a peer –to-peer Internet Currency that enables instant near zero cost payment to anyone in the world. Lit coin is an open source, global payment network that is fully decentralized without any central authorities. Mathematics secures the network and empowers individuals to control their own finances. Lit coin features faster transaction confirmation times and improved storage efficiency them the leading math-based currency.

Some other crypto currencies are bbqcoins and dogecoins which have not gained much significance due to their technical shortcomings and inability to stand out.

**Block chain technology**

Most crypto currencies are based on block chain technology. In simple terms, it is a system to transfer and store data or information that is generated while transacting in a crypto currency A recent Whitepaper on Block chain has broken down the concept of block chain technology in detail.
Definition of Block chain
In simple words, block chain define as a digital ledger in which transactions made in bit coin or another crypto currency are recorded chronologically and publicly.

How this operate:
The technology allows transactions to be simultaneously anonymous and secure, peer-to-peer, instant and frictionless. It does this by distributing trust from powerful intermediaries to a large global network, which through mass collaboration, clever code and cryptography, enables a tamper-proof public ledger of every transaction that ever happened on the network. A block is the “current” part of a block chain which records some or all of the recent transactions, and once completed, goes into the block chain as permanent database. Each time a block gets completed, a new block is generated. Blocks are linked to each other (like a chain) in proper linear, chronological order with every block containing a hash of the previous block.
Block chain technology is at the heart of how crypto currencies work. It helps to evade any possibility of fraud and makes any kind of tampering infeasible for the users. It is a support system for the encrypted currency, whereby the transactions are recorded and stored on the ledger. So even if the users are anonymous, it still becomes difficult for anyone to possibly change the data without involving other members on the network.

Bit coin
Bit coin is a digital currency created in 2009 that uses decentralized technology for secure payments and storing money that doesn't require banks or people's names. It was announced on an email circular as a way to liberate money in a similar way to how the internet made information free. Bit coin is based on an open source protocol and is not issued by any central authority. Bit coin is a peer-to-peer currency. Peer –to–peer means that no central authority issues new money or tracks transactions. These tasks are managed collectively by the network. “Bit coin “, capitalized, refers to the protocol and transaction network whereas “bit coin”, lower case, refers to the currency itself. So, having learned that bit coins correspond to a virtual currency.

BACKGROUND OF BITCOIN
In January 2009, the bit coin network came into existence with the release of the first open source bit coin client and the issuance of the first bit coins, with Satoshi Nakamo to mining the first block of bit coins ever (known as the genesis block), which had a reward of 50 bit coins. For much of the nineteenth and twentieth century’s, the world’s most successful currencies were convertible into fixed amounts of gold or other precious metals, and for thousands of years prior to that, many currencies were minted directly from gold or silver specie. The direct connection between money and gold, secured by sovereign inventories such as the Fort Knox depository in the United States, created public confidence in currency’s value. The gold standard collapsed in most economies between the 1920s and the 1970s, partly due to the pressures of financing two World Wars, but probably even more because worldwide production of gold did not keep pace with economic growth. Since then, nearly every major economy has issued paper fiat currency, the value of which relies on public belief that a nation’s government or central bank will not increase the supply of new banknotes too rapidly. Multinational consortia have issued currency like the euro on similar terms. Fiat currencies have circulated for thousands of years, and sooner
or later, nearly all of them have been inflated down to worthlessness by governments confronted by strained public finances.

**Features of Bit coin:** Bit coin is the first decentralized digital currency. Bit coins are digital coins that can send through internet. Bit coins are transferred directly from person to person via the net without going through bank or clearinghouse. (This means that the fees are much lower, you can use them in every country, your account cannot be frozen and there are no prerequisites or arbitrary limits). Either bit coin has to be physical and movable, and fungible. It is movable and fungible but not physical Electronic money or digital cash may include bit coin but then it needs a legal backing from an authorized entity, which is not the case in India as of now.

**Legal and Taxation Issues**

**Regulatory Status in India**
The Reserve Bank of India has neither declared bit coins as illegal in India nor has it accepted bit coins as a currency. The RBI has only stated the risks that are associated with virtual currencies and cautioned that people dealing in it should do so at their own risk.

**Legal Status of Bit coins Currency:** According to Business dictionary, “Currency is generally defined as tokens used as money in a country. In addition to metal coins and paper bank notes, money orders, traveler’s checks, it also includes electronic money or digital cash.” To fit in this definition, which is not exhaustive?

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“Currency” includes all currency notes, postal notes, postal orders, money orders, cheques, drafts, travelers’ cheques, letters of credit, bills of exchange and promissory notes, credit cards or such other similar instruments, as may be notified by the Reserve Bank. As is evident from the above definition, bit coin doesn’t fit in any of the illustrative names, however if RBI wants, it can certainly notify it to be included in the above definition. RBI hasn’t notified bit coin as legal tender in India and therefore it couldn’t be termed as real currency for the time being.

**Coins Provisions under law:**
"coin" means any coin which is made of any metal or any other material stamped by the Government or any other authority empowered by the Government in this behalf and which is a legal tender including commemorative coin and Government of India one rupee note.

Explanation.--For the removal of doubts, it is hereby clarified that a "coin" does not include the credit card, debit card, postal order and e-money issued by any bank, post office or financial institution; (b) "commemorative coin" means any coin stamped by the Government or any other authority empowered by the Government in this behalf to commemorate any specific occasion or event and expressed in Indian currency.

On study of above, bit coin is certainly not metal or even any other material for that matter. Moreover, it’s not legal tender. If it was to become e-money in the near future, still it could not be coin as per the Coinage Act, since e-money is specifically excluded from the above definition. Consequently, bit coins cannot be considered as coins now or in the days to come.
Bit coin Exchange:-
A bit coin exchange is a site that facilitates trading bit coins for fiat currencies or other digital currencies, and vice versa. Bit coin exchanges also provide you with the service of storing your bit coins. When selecting an exchange, consider security as one of the primary attributes. You should also verify how user-friendly the exchange is and what payment options it offers you (cards, PayPal, cash, and bank transfer). Bit coin exchanges quickly spread in the market in early 2011, as more and more people started exchanging bit coins, mostly for speculative purposes. Given the high volatility and a ready market without any regulatory intervention, people find it suitable to trade, invest and hold and make profits out of the same. Not much later after the inception of bit coins, bit coin exchanges quickly spread into the market. Since then several bit coin exchanges in India and elsewhere have come into picture.

At a preliminary level, a bit coin exchange is simply a common platform to the users for the purpose of buying and selling while matching mutual needs, in order to earn profits. For instance take an idea of a stock exchange, where a person has an account and he buys stock, by paying consideration in money, from a person who wants to sell it. Stock exchanges provide a place for buyers and sellers where they can trade. On similar lines, a bit coin exchange works by essentially providing ‘service’ to its users, however unlike stock trading where a broker may as well come into picture and charge commission in return for his services, in case of bit coin exchanges, there is no third party involvement, this service is provided by the exchange itself which thereby charges commission for the trade conducted and earns revenue.

Services provided by bit coin exchanges in India:
Amongst the plethora of services (including core and non-core services and including those driven by profit or not) provided by different exchanges in India, following are the services that are common in the market:
1. Storing bit coin in a bit coin wallet after deposit/receipt of the same in the wallet.
2. Exchange of bitcoin with other currency like a fiat currency.
3. A Merchant gateway service used to pay to merchants in bit coins and acceptance by them thereon.
4. Mobile application providing ease of accessing bitcoin wallets.
5. Sending bitcoins stored in the wallet to another wallet/withdrawing.

If it’s a virtual currency, could bitcoin be treated as property:-
Bitcoin is not currency in general parlance but is treated as a virtual currency. In a notice dated March 25, 2014, the Internal Revenue Service, Washington stated that virtual currency is treated as property for U.S. federal tax purposes. To apply the same concept India, first has to be examined the definition of property. Property means property of any kind, whether movable or immovable, tangible or intangible, and includes any right or interest in such property. This is an inclusive definition of property, where both movable and immovable properties are included. Bitcoin is movable and intangible thus it can be called a property as per this definition. However, any idea to levy tax on it as a property will require extensive reasoning and research. The Supreme Court of India, on 1 May, 1996, discussed the expression ‘property’ in detail. ‘Property’ is said to be understood in a vast and expansive manner. To start with, one can say that property includes everything that has an extendable value. It includes the item in question.
and all rights and liabilities associated with it. An element which is material to the expression is ‘ownership’. While the property has all interests in it, it is the ownership that lets the owner exercise such interest, where the interest extends to doing everything, an owner is capable of doing to exercise his right in the property.

**Goods**

Under Indian law, Sale of Goods Act, 1939 defines ‘goods’ u/s 2(7). Accordingly, “Goods” means every kind of movable property other than actionable claims and money; and includes stock and shares, growing crops, grass, and things attached to or forming part of the land which are agreed to be severed before sale or under the contract of sale. To answer whether bitcoin is a good or not, first, we shall answer the following questions:

➢ Is it a movable property? Sale of Goods Act does not define movable property. It is however defined in the General Clauses Act, 1897. As per which, movable property shall mean property of every description, except immovable property. Bit coin is not immovable. So, yes. It may be called movable.

➢ Is it an actionable claim or money? No. It does not impose a claim on anybody, so it is not an actionable claim. And, precisely, since it is not legal tender, it is not money even though it represents value in money.

One important aspect for any item to be a good is that it should have an intrinsic value in itself. While bitcoins might fall under the term ‘goods’ as per Sale of Goods Act, 1930 but it does not seem to have any value in itself-- in other words it does not have any value or attribute which could be the reason why people would buy for its own sake. People would buy bit coins to store value but to trade and earn profits. It is not bit coin that has fundamental value, but the transactions in it which help earn something. Therefore, to categorize bit coins as ‘goods’, will be an incorrect stance to take.

**Digital Goods**

Similar to digital currency, we have digital goods and virtual goods respectively. Digital goods are goods existing in electronic format. Examples could be e-books, e-newspapers, internet coupons, online traded instruments, e-tickets, downloadable software, mobile apps, etc. For bitcoin to become a digital good, it has to have the respective features. If we analyze, we find that bitcoin is being used to buy digital goods, in that way it becomes a medium of exchange to purchase digital goods rather than being a digital good itself.

**Under Foreign Exchange Management Act, 1999 (‘FEMA’)** given its attributes, the closest we could define bitcoin as is ‘virtual currency’ or more particularly ‘cryptocurrency’. As far as FEMA is considered, there can be two possible scenarios:

A. **When there is no regulatory framework:** Section 2(h) of the Act defines ‘currency’. RBI hasn’t declared bit coins to fall under that definition. Then there’s ‘foreign currency’. It means any currency other than Indian currency”. Now what is Indian currency? “**Indian currency**” means currency which is expressed or drawn in Indian rupees but does not include special bank notes and special one rupee notes issued under section 28A of the Reserve Bank of India Act, 1934 (2 of 1934).
B. When there is a regulatory framework: As mentioned before, the RBI can explicitly declare bitcoins to be currency; in this case it would fall under the definition of foreign currency and be dealt with accordingly?

However, the present situation is such where bitcoin doesn’t fall in any of the above definitions. So, it does not cleanly fall into the category of foreign currency as per FEMA as it does not qualify to be currency as per the same Act—the RBI would have to explicitly notify it to be such in the first place.

Online transactions in bitcoin and FEMA

If one transacts into export/import transactions in bitcoin, the provisions of FEMA will get attracted. Transactions in FEMA are categorized as ‘Current account transaction’ and ‘Capital account transaction’. First we analyze current account transaction. A “current account transaction” means “a transaction other than a capital account transaction and without prejudice to the generality of the foregoing such transaction includes,—

(i) Payments due in connection with foreign trade, other current business, services, and shortterm banking and credit facilities in the ordinary course of business,
(ii) Payments due as interest on loans and as net income from investments,
(iii) Remittances for living expenses of parents, spouse and children residing abroad, and
(iv ) expenses in connection with foreign travel, education and medical care of parents, spouse and children;” Highlighting ‘a transaction other than a capital account transaction’ from the above definition, capital account transaction (Section 2(e)) means “a transaction which alters the assets or liabilities, including contingent liabilities, outside India of persons resident in India or assets or liabilities in India of persons resident outside India, and includes transactions:

(a) Transfer or issue of any foreign security by a person resident in India;
(b) Transfer or issue of any security by a person resident outside India;
(c) Transfer or issue of any security or foreign security by any branch, office or agency in India of a person resident outside India;
(d) Any borrowing or lending in foreign exchange in whatever form or by whatever name called;
(e) Any borrowing or lending in rupees in whatever form or by whatever name called between a person resident in India and a person resident outside India;
(f) Deposits between persons resident in India and persons resident outside India;
(g) Export, import or holding of currency or currency notes;
(h) Transfer of immovable property outside India, other than a lease exceeding five years, by a person resident in India;
(i) acquisition or transfer of immovable property in India, other than a lease not exceeding five years, by a person resident outside India;
(j) Giving of a guarantee or surety in respect of any debt, obligation or other liability incurred—
   (i) By a person resident in India and owed to a person resident outside India; or
   (ii) By a person resident outside India.”

• Whether foreign trade in bitcoins will be treated as a current account transaction or a capital account transaction depends on assessment of whether bitcoin is a ‘good’ or an ‘asset’.

As already discussed, we prefer not to call bitcoins a good. If it is not a good, then foreign transactions in bitcoin shall be treated as capital account transactions. Thus, such transactions are not allowed unless there is explicit from the RBI.

**Receipts and Payments in Bitcoins:**
Considering the fact that bitcoins are not legal tender in India, receipts and payments in this virtual currency in a domestic transaction as well as in imports/exports is a separate issue.

As far as receipts and payments in bitcoins are concerned, following are the possible questions that need to be answered:

• Is it possible to buy goods or services in India and make payment in bitcoins? Certain companies in India are accepting bitcoins as payment against purchase of goods or services. Even if as per the Reserve Bank of India Act, 1934 (“the Act”), payment made in legal tender is a valid discharge of an obligation or debt one has towards a payee, the Act however does not specifically exclude any other form of consideration. Meaning thereby that any form of payment other than legal tender in India is allowed since it is not prohibited specifically, subject to the condition that there is consensus between the parties involved.

• Is it possible to export and receive payment in bitcoins? Any international transaction which involves payment or receipt shall attract the provisions of FEMA and rules made there under. If one was to export outside the Indian Territory and receive payment in bitcoin, one shall first examine what bitcoins shall be treated as, for that matter. Foreign Exchange Management (Manner of Receipt and Payment) Regulations, 2016 clearly specify the modes of payment in different cases.

(a) *In respect of an export from India, receipt shall be made in a currency appropriate to the place of final destination as mentioned in the declaration form irrespective of the country of residence of the buyer.*

(b) *Any other mode of receipt of export proceeds for an export from India in accordance with the directions issued by the Reserve Bank of India to authorized dealers from time to time.*”

Bitcoins are not legal tender in India, by virtue of which, they are not recognized as real currency. Also, RBI hasn’t directed anything pertaining to receipt of bitcoins for such transactions. Clearly, this leads one to the conclusion that anyone cannot receive bitcoins as a manner of receipt for any exports made outside India.

**Is it possible to import and remit payment in bitcoins**

(1) “Notwithstanding anything contained in Regulation 5, a person resident in “(1) Notwithstanding anything contained in Regulation 5, a person resident in India may make payment for import of goods in foreign exchange through an international card held by him/ in rupees from international credit card/ debit card through the credit/ debit card servicing bank in India against the charge slip signed by the importer/ as prescribed by Reserve Bank from time to time.”

“Foreign exchange” means foreign currency and includes,— (i) deposits, credits and balances payable in any foreign currency, (ii) drafts, travelers cheques, letters of credit or bills of exchange, expressed or drawn in Indian currency but payable in any foreign currency,
(iii) drafts, travelers cheques, letters of credit or bills of exchange drawn by banks, institutions or persons outside India, but payable in Indian currency: “it’s conclusive that bitcoin does not conform to the above definition and thus it is certainly not foreign exchange. It is hereby inferred that in exchange of any imports made by any person in India, it is manifestly impossible to remit payment in bitcoins in the ambit of law.

SEBI

Classification as ‘commodity derivative’

Bitcoin is treated as ‘commodity’ in few foreign jurisdictions. However, to understand the intricacies revolving bitcoins as ‘commodity derivative’ in India, one shall have to refer the Securities Contracts Regulation Act, 1956.

“Commodity derivative” means a contract —

(i) for the delivery of such goods, as may be notified by the Central Government in the Official Gazette, and which is not a ready delivery contract; or

(ii) for differences, which derives its value from prices or indices of prices of such underlying goods or activities, services, rights, interests and events, as may be notified by the Central Government, in consultation with the Board, but does not include securities as referred to in sub clauses

(A) and (B) of clause (ac): To be able to be covered by the above definition, the essential element is a contract. While the definition of contract is dealt by the Indian Contract Act, 1872, either of the above two purposes is a pre-requisite for a contract to be a commodity derivative contract.

Essentially, bitcoin is not goods as already explained in the preceding sections; additionally it is also not something that has its value derived from an underlying good or something else. In fact value of bitcoins fluctuates on demand-supply phenomenon rather than anything persistent. Conclusively, bitcoins cannot be treated as commodity; also it cannot be treated as commodity derivative. Therefore, SEBI cannot be seen as the authority overseeing bitcoin exchanges.

Collective Investment Scheme (‘CIS’)

Accordingly, sub-section 2 or 2A has to be referred to, which specifies a list of conditions that have to fulfill in order to fall under the definition of CIS. Interestingly, Sections cited above focus on words or expressions such as ‘collective’, ‘pooling of interest’, ‘contribution’. Looking at the concept of bitcoin, it cannot be held that at any time the investor is collecting funds and then investing the money. Till date, there is no trace of any such activity in the market where a service such as pooling of funds of investors and then investing in bitcoins was done. Thus, trading in bitcoins for investment purposes has not grown enough to be regarded as CIS. If at all there is a prospective change resulting in inclusion of bitcoin trading services under the regulation of SEBI by virtue of being treated a CIS, consequential norms shall be applicable pari passu to such platform or providers of service if any. It mandates obtaining registration certificate for persons specified such as brokers, sub-brokers, share transfer agents, etc. An inclusion in the provision is that of ‘such other intermediary who may be associated with securities market’. The words draw one’s attention to two words, namely ‘intermediary’ and ‘securities’. To extend the above provisions to bitcoin or bitcoin exchanges, the service provider shall have to be an intermediary under SEBI and the dealing item shall be a ‘security’. Since
none of the criteria will be fulfilled by bitcoins, obtaining aforementioned registration cannot be extended to bitcoin exchanges.

**Taxation**

Coming to the matter of taxation in bitcoin transaction, particularly in a case where we import bitcoin, following may apply:

**Customs Duty:** As per Central Excise and Customs Act, 1944-16, customs duty is levied on import of software subject to the condition that the software imported in a physical form. Therefore, software imported online is not chargeable to Customs duty. Similarly, if bitcoin is treated as software, no duty shall apply.

**VAT:** VAT has now been subsumed into the Goods and Services Tax with effect from 1st July 2017. GST is discussed in later sections.

**GST on bitcoins**

**Currency under FEMA vis-à-vis ‘money’ under GST**

Currency has been defined under FEMA: **Section 2(h) “currency” includes all currency notes, postal notes, postal orders, money orders, cheques, drafts, travellers cheques, letters of credit, bills of exchange and promissory notes, credit cards or such other similar instruments, as may be notified by the Reserve Bank; On perusal of the above definition, it is explicit that bitcoins does not fit in any of the mentioned types. It is in fact not been notified by the Reserve Bank as a currency. So apparently, bitcoin is not currency. On lines similar to the definition above, lawmakers have framed the definition of ‘money’ under GST, “money” means the Indian legal tender or any foreign currency, cheque, promissory note, bill of exchange, letter of credit, draft, pay order, traveler cheque, money order, postal or electronic remittance or any other instrument recognized by the Reserve Bank of India when used as a consideration to settle an obligation or exchange with Indian legal tender … of another denomination but shall not include any currency that is held for its numismatic value;…**

**Money**

‘Money’, as defined, has been kept out of the purview of GST.” **Goods” under GST, means 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;** Bitcoin doesn’t have any intrinsic value in itself; hence it would be technically incorrect to refer it as goods.

Where bitcoin is not being used as anything except as a ‘means of payment’, it needs to come under the arena of currency. Otherwise, GST implications with respect to supply of goods/services will arise. Until specifically declared by RBI, bitcoin shall not be ‘money’. Several countries have declared bitcoin as ‘money’ thereby making it exempt from GST. For example, a European Court of Justice Ruling has exempted bitcoin from VAT. Australian ederal Government has also proposed to exempt bitcoins from tax in its budget 2017.

**Computer Programme**

The system on which bitcoin works, is nothing but software, a set of codes which may be considered a ‘computer programme’. Indian Copyright Act, 1957 defines the word ‘computer programme" means a set of instructions expressed in words, codes, schemes or in any other form, including a machine readable medium, capable of causing a computer to perform a
particular task or achieve a particular result. Under GST, if classified as software/computer programme a rate of 18% shall apply. Accordingly tax is applicable subject to the basic exemption limit on any profit made on dealing with bitcoins. On sale of bitcoins and any resultant profit is subject to capital gains tax as is income under Income Tax Act, 1961. In one of the case, the Court held that software whether customized or non-customized will be goods if it satisfies a set of three attributes, namely:
1. Utility;
2. Capable of being bought and sold;
3. Capable of being transmitted, transferred, delivered, stored and possessed.
Goods might be tangible or intangible. Bitcoin does satisfy the above last two points, however, it doesn’t seem to have the same utility as of other goods. There is no absolute usefulness that might be associated with bitcoin. A bitcoin is definitely bought and sold for purposes such as investment or trading; however, these facts do not necessarily make an item ‘goods’. Since bitcoin has utility which is specific to itself and not general, and further to add, having no intrinsic value, it cannot be termed as goods.

**Foreign Ruling on Bitcoins**

The GST implications of transactions involving bitcoin - GSTR 2014/3 – A Goods and Services Tax Ruling, Australian Taxation Office, Australian Government, (original ruling dated 17th December, 2014) . The Ruling summarizes following significant points with respect to application of GST on bitcoins and related implications:
1. The ruling as specified has considered the classification of bitcoin as ‘money’ or a ‘financial supply’ under the GST Act.
2. As pointed out, there must be a ‘supply for consideration’ for there to be a taxable supply.
3. A transfer of bitcoin from one entity to another is a ‘supply’ for GST purposes. The exclusion from the definition of supply for supplies of money does not apply to bitcoin because bitcoin is not ‘money’ for the purposes of the GST Act. The exclusion from the definition of supply for supplies of money does not apply to bitcoin because bitcoin is not ‘money’ for the purposes of the GST Act.
4. The supply of bitcoin is not a ‘financial supply’. Further, it is not an input taxed supply.
5. A supply of bitcoin is a taxable supply and the supply of bitcoin is not GST-free (for example, a supply to a non-resident for use outside of Australia).
6. A supply of bitcoin in exchange for goods or services will be treated as a barter transaction.
7. Bitcoin is not goods and cannot be the subject of a taxable importation. However, an offshore supply of bitcoin can be a taxable supply under the ‘reverse charge’ rules.

**Risks associated with bitcoins**

- RBI through its press release dated 24th December, 2013 has warned the public about the negative attributes of bitcoins and its usage. It specifically pointed out, that since they are stored digitally, they are exposed to risks such as hacking, attacks, compromises etc.
- Bitcoins are not backed and/or regulated by a centralized agency till date, making them less reliable.
- There is no forum, where a user can possibly reach out for any help or grievance, as a result of which Indian consumers are being exposed to transactional and informative risks.
• Another issue pertains to awareness. Lot of consumers has little or no information regarding risks associated with bitcoins lending them into unwanted trouble under regulations such as antimony laundering.
• One of the very important attributes of bitcoins is its volatility. Steep changes every second are expected, making investors prone to zero-worth risks.
• Several incidences have occurred stating that bitcoins have been used for illicit and illegal activities around the globe. Reportedly, a recent ransom ware attack called WannaCry spread on a large scale basis; the hackers had demanded payment in respect to ransom money in bitcoins. The incidence among others has raised questions on the viability of the cryptocurrency. Bitcoins have also been used in Ponzi schemes, resulting in huge loss of money for several investors.

Conclusion
Since the establishment of Bitcoin 2009, its uses as a cryptocurrency have been debated extensively as it has become a highly controversial topic. The debates are stimulated by the fact that some argue it has the potential to disrupt the financial system as we know it. On a positive note, the minimal fees and lack of regulations makes it much easier and cheaper to send money internationally. This ultimately makes capital available in the places that need it the most and were previously unable to gain access to capital flows. However, when looking at the negatives, the implementation of this currency also allows for the facilitation of criminal activity, and it takes away from the ability of the government to generate revenue through taxation. This trades off highlights the importance of cost-benefit analysis when evaluating the issue.