

Bitcoin : The Digital Currency

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Abstract

Bitcoin represents a new monetary system introduced in 2009. A bitcoin gains its value from its use for making payments in the bitcoin ecosystem. A person owning the bitcoins, enjoys only the privilege of moving the bitcoins in the bitcoin ecosystem and nothing more than that. Unlike the traditional payment systems, the bitcoin is a proof of work-based payment system with no third party intermediation. That means the payer and payee transact directly over the bitcoin network. The existing banking system extracts enormous value from society and it is parasitic in nature. This paper is an attempt to analyze the legal perspective of the bitcoins. The first thing that will be discussed in this paper will be about the status of bitcoins in the eyes of law in various jurisdictions. Thus, the main objective of this paper will revolve around the comparative analysis of the various jurisdictions pertaining to the use of bitcoins as an alternative to the existing payment systems. Further, the rules enforced by the regulators from various jurisdictions pertaining to the use of bitcoins will be discussed.

INTRODUCTION

Started in 2009, bitcoin system has emerged as an alternative to the existing payment system. In the recent past, bitcoins have attracted a great deal of attention on several fronts. Bitcoin relies on advanced cryptography techniques and is being supported by a well-established network of users, thereby, ensuring its stability and reliability (Nakamoto, 2008). When we enter a transaction in the

bitcoin system, it is an irrevocable one. That means the payment cannot be stopped and is made immediately. One more important thing regarding the bitcoins is that while making the transaction, only the ownership of the bitcoins is changed over the bitcoin network system. This ownership structure has to be registered somewhere, otherwise it could be quite tempting for bitcoin holders to duplicate it and use the same multiple times. That is why every piece of information pertaining to the bitcoins is stored in a "Ledger" and when a transaction in bitcoins takes place, that spot in the ledger is transferred to the new owner of the bitcoin. Bitcoin transactions do not contain any personal information, thus making it an anonymous transaction. Only the private key holder knows the identity of the bitcoin address owner (USGAO, 2013).

It is worth pondering whether bitcoin is a currency or a technology. While understanding the functioning of bitcoin system as an alternative method of payment, this becomes clear that the two aspects namely currency and technology are inextricably linked to each other. One loses its existence without the other. Thus, bitcoin represents a new monetary system which is an easy and also an affordable way to send and receive money. The objective of the paper is to explore the legality of bitcoin in the top ten economies of the world in terms of their respective nominal GDPs including the United States, China, Japan, Germany, France, United Kingdom, Brazil, Italy, Russia and India respectively.

BITCOIN PAYMENT SYSTEM

Bitcoin is a decentralized payment system. In centralized payment systems we see that the issuer enjoys the privilege of verifying and executing the transactions. Simply, the issuer administers all the accounts through which the payments are made. But the case is altogether different of bitcoins wherein the verification and execution of transactions is actually handed over to the bitcoin users on the network. Thus, a bitcoin system works independent of government, banks and other institutions. There is no third party intervention in the bitcoin system, the two parties to a transaction transact directly with one another.

Bitcoin system has the characteristic features of both a cash system as well as an online payment system. We know a number of alternative payment methods have been developed from time to time for example we have e-wallets (Paypal, Google Checkout, Web money and so on) direct debit systems, money transfer systems etc. However, what do these payment systems have in common is that they are denominated in existing currencies and are also regulated by the government or tied to a central bank. However, there is nothing like that in case of bitcoin system. A transaction is carried out between the concerned parties

cryptographically from one public key to another key.

The bitcoins are generated by a process known as Bitcoin Mining. The process of mining actually involves execution of complex number-crunching tasks carried out by the computers over the bitcoin network. However, the procedure has been set up in such a manner that it becomes more difficult to generate new bitcoins over time and this way the maximum number of bitcoins that can ever be generated has been limited to around 21 million. Thus, there is no option left for the miners to introduce a flood of bitcoins in the system thereby declining the value of those bitcoins which are already in the network. The issuers of the bitcoin are called as "Miners". These miners are not under the supervision of a government authority. Thus, issuance of bitcoins is not a government regulated activity.

The main advantage of bitcoins over the traditional currencies is that the transaction costs are low. Because of this feature we see that small retailers have decided to use bitcoins as a mode of payment. As we know the existing banking system takes away a large portion of our money as a transaction fee whenever we want to send money to our relatives residing in some other country. At that time bitcoins can protect us because the transaction cost will be very low or at times nothing. The average transaction fees are between 0 and 1 percent only. Another advantage of bitcoin system is that it enables anonymous payments online. That means the identity of buyer and seller is not exposed over the network. Since no card numbers and account numbers are revealed to the users thus we see there is a lower risk of fraud. Their identity is encrypted but a full record of every user and every bitcoin is preserved on the publicly available ledger.

Apart from the advantages of bitcoins, these also suffer from certain serious limitations which include high price volatility, inelastic supply dependent upon mathematical coding, lack of legal security, and a number of serious issues due to the immaturity of the currency. Because of the anonymity present in the system, bitcoins can be extensively used by the criminals for illegal activities like "Money laundering" and "Tax evasions". Using bitcoin for security and anonymity a website known as "The Silk Road" allowed its users to buy and sell drugs (Patterson, 2013). However, at present hundreds of legitimate retailers are accepting bitcoins as a form of payment including vendors selling clothing, games, music, and some hotels and restaurants (FBI, 2012). That is why few governments have taken steps to regulate it and curb its potential use for tax evasions as well. However, the regulation of bitcoin system is still at its nascent stage.

LEGAL PERSPECTIVE OF BITCOINS

As it is quite evident that the legal status of bitcoins is not the same across different countries. In some countries it has been given a green signal while in others it has observed a red signal. And in some others, wait and watch attitude has been observed. Overall, one may say that this form of digital currency is primarily a code being used for sending and receiving money online. Only the bitcoin users are able to control this currency and no institution is able to administer it.

While numerous studies have examined the volatility and future of bitcoin (Polasik *et al.*, 2015; Letra, 2016; Bouoiyour and Selmi, 2016; Katsiampa, 2017; Chiu and Koepl, 2017; Chu *et al.*, 2017), there are very few studies that explore the broader cryptocurrency market and how it is evolving.

United States

The U.S. Treasury classified bitcoin as a convertible decentralized virtual currency in 2013. A Magistrate Judge of a Texas U.S. District Court classified bitcoin as a currency. The U.S. Government Accountability Office (GAO) recommended in May 2013, that the Internal Revenue Service (IRS) formulate a tax guidance for bitcoin businesses. End of March 2014, in time for 2013 tax filing, the IRS issued a guidance that it considered virtual currency as property for federal taxation and that "an individual who 'mines' virtual currency as a trade or business is subject to self-employment tax". In January 2014, the U.S. Securities and Exchange Commission (SEC) focused on whether bitcoin-denominated stock exchanges were illegal, and inquired into unregistered securities offerings of the gambling site SatoshiDice and FeedZeBirds. In May 2014, it warned investors that "both fraudsters and promoters of high-risk investment schemes may target bitcoin users". The Consumer Financial Protection Bureau warned consumers of bitcoin being risky.

As of May 2015, New York State is the only state with a final bitcoin rule, commonly referred to as a BitLicense. In March 2014, the New York State Department of Financial Services led by super-intendent Benjamin Lawsky had officially invited bitcoin exchanges to apply with them, and in July 2014 it published draft regulations for virtual currency businesses. Businesses would have to provide transaction receipts, disclosures about risks, policies to handle customer complaints, maintain a cyber-security program, hire a compliance officer and verify details about their customers to follow anti-money-laundering rules as per Fin CEN.

China

Chinese government has given a nod to the private parties for holding and

trading bitcoins in China. However, the regulations refrains the financial firms like banks from doing the same ((Ruwitch and Sweeney, 2013). On 1 April, 2014, China Central Bank ordered commercial banks and payment companies to close bitcoin trading accounts in two weeks. Trading bitcoins by individuals is legal in China. On 5 December 2013, China Central Bank barred financial institutions from handling bitcoin transactions, moving to regulate the virtual currency.

Japan

On 7 March 2014, the Japanese government, in response to a series of questions asked in the National Diet, made a cabinet decision on the legal treatment of bitcoins in the form of answers to the questions. The decision did not see bitcoin as currency nor bond under the current Banking Act and Financial Instruments and Exchange Law, prohibiting banks and securities companies from dealing in bitcoins. The decision also acknowledges that there are no laws to unconditionally prohibit individuals or legal entities from receiving bitcoins in exchange for goods or services. Taxes may be applicable to bitcoins. There are at present no laws in Japan regulating the use of bitcoins.

Germany

On 19 August 2013, the German Finance Ministry announced that bitcoin is now essentially a "unit of account" and can be used for the purpose of tax and trading in the country. It is not classified as a foreign currency or e-money but stands as "private money" which can be used in "multilateral clearing circles", according to the Ministry. According to the communication on bitcoin issued by Federal Financial Supervisory Authority on 19 December 2013, bitcoins are legally binding financial instruments that fall into the category of units of account, in accordance with the first sentence of section 1(11) of the German Banking Act.

France

In July 2014, a regulation was issued by Ministry of Finance regarding operation of virtual currency for professionals, exchanges, and taxation, thereby legalizing bitcoin transactions (Ministry of Finances, 2014).

United Kingdom

Bitcoin is treated as 'private money'. When bitcoin is exchanged for sterling or for foreign currencies, such as euro or dollar, no VAT will be due on the value of the bitcoins themselves. However, in all instances, VAT will be due in the normal way from suppliers of any goods or services sold in exchange for bitcoin or other similar crypto-currencies. Profits and losses on crypto currencies are subject to capital gains tax. The government of the United Kingdom has stated that the bitcoin is currently unregulated.

Brazil

Bitcoin is regulated under a 2013 law that discusses both mobile payment systems and electronic currencies.

Italy

Though it is legal to trade in bitcoin for private individuals, but it is not being regulated by the Italian government.

Russia

CNBC reported that bitcoin was illegal in Russia in 2014, as did the European Parliament. Various Russian authorities and organizations have spoken out against bitcoin. In early 2015, Russia's media regulator blocked several bitcoin-related websites, and a Russian state-owned media outlet reported that according to "the [Russian] Central Bank... Bitcoin usage [is] illegal under Russian federal law," and in February 2014, the Russian Prosecutor General's Office was quoted as saying, "Cyber currencies... including the most well-known, bitcoin, are money substitutes and cannot be used by individuals or legal entities." In 2014, the Bank of Russia issued a statement on bitcoin usage in which it was characterized as money substitute banned in Russia. In February 2014, Russia's Prosecutor General's Office claimed that bitcoin is a money substitute and "cannot be used by individuals or legal entities".

India

In June 2013, the Reserve Bank of India (RBI) issued a notice acknowledging that virtual currencies posed legal, regulatory and operational challenges. In August 2013, a spokesperson wrote in an email that bitcoin was under observation. On 24 December 2013, the Reserve Bank of India issued an advisory to the Indian public to be cautious in buying or selling of virtual currencies, including bitcoin. Following the announcement bitcoin operators in the country began suspending operations. The first raid in India was undertaken a couple of days later in Ahmedabad by the Enforcement Directorate (ED) on the office of the website, buysellbit.co.in, that provided a platform to trade in this virtual currency. The preliminary investigations found it to be in violation of the Foreign Exchange Management Act (FEMA). On 28 December 2013, the Deputy Governor of the RBI, K. C. Chakrabarty made a statement that RBI had no plans to regulate bitcoin.

Thus, we have noted that every country has put forward the legality of bitcoins differently. Some have allowed bitcoins to be traded while others have banned the use of bitcoins.

Future of Bitcoins

As we see, bitcoins have been praised by the users mainly for their two important features, namely low transaction costs and anonymity in use. The increase in regulation and increased compliance requirements will raise bitcoins transaction costs and reduce anonymity in their use in future. For small investors, placing the regulation on the use of bitcoins, will boost their confidence in the bitcoin system because it will bring consumer protection. Also, Banks have not accepted the bitcoin system so far. Putting some regulation in place will definitely bring the participation of the financial system which, in turn, would lead to the wide acceptance of bitcoins in the society.

Another thing to note is that bitcoins are issued at a slower pace as compared to the physical currencies. The reason being the complex mathematical calculations that need to be solved and verified over the network by the miners. Thus, the limited number of bitcoins in the system can lead to the higher prices of bitcoins in future. This will, in turn, lead to the use of bitcoins for speculative purposes rather than as a means of payment.

CONCLUSION

Thus, it can be concluded that bitcoin, as an alternative payment system, can work like a magic but keeping its demerits in view, a lot of work has to be carried out in order to ensure its users of full protection against the loss of their valuable money. Also, steps need to be taken to curb the use of bitcoins for criminal purposes like money laundering and tax evasions. Also, a lot of things need to be done by the different governments to put in place some regulation so that bitcoins can be used in their best possible ways.

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