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An Analysis on the Demerit of Crypto Currency in the International Banking

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ABSTRACT

Cryptocurrencies have captured the attention of people all over the world and are now widely used for investments and transactions. They rely on blockchain technology to provide transparency and authenticity, but many countries are still grappling with how they work and how to regulate their trade.

The advent of cryptocurrencies has revolutionized people's perception of money and finance. Some see cryptocurrency as a way to escape the clutches of corrupt and inefficient governments and central banks, while others view it as a means to circumvent traditional financial institutions, which they find cumbersome, expensive, and opaque. Nevertheless, international banks and other prominent players in the financial sector have been slow to adopt cryptocurrencies. Many banks remain skeptical of cryptocurrencies, viewing them as speculative investments rather than legitimate currency. Additionally, the frequent association of cryptocurrencies with illegal activities like money laundering and terrorist financing adds to their skepticism. While cryptocurrencies do offer some degree of anonymity, this feature also attracts criminals.

This article explores whether cryptocurrency can legitimately be considered a currency, its legal status both nationally and internationally and whether it can fulfill the role of a banking system at the national and international levels. The article also suggests how cryptocurrencies can be traded as currency in the banking system while safeguarding against cyber threats and malware attacks.

I. INTRODUCTION

In India Cryptocurrencies are called as Virtual Digital Assets. Section 3 of the Finance Act, 2022 introduces Virtual Digital Asset as a taxable asset under Income Tax Act, 1961. Therefore it is appropriate to call cryptocurrency as “crypto asset”. Cryptocurrency, sometimes known as “crypto," is a category of digital assets with several uses. For instance, Bitcoin was created largely as a means of payment that isn't distributed or managed by a centralized authority. The cryptographic methods that allow people to purchase, sell, or exchange

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cryptocurrencies safely without requiring a third party, like a government or financial institution, to confirm a transaction are what give them their name.

Blockchain technology, which retains a secure record of transactions and keeps trac k of who owns what, underpins cryptocurrencies. The use of blockchains solved the issue of stopping people from duplicating their holdings and trying to spend it twice that plagued earlier attempts to create entirely digital currencies.

It is crucial to remember that the adoption of cryptocurrencies in global banking is still in its early stage, and a number of issues still need to be resolved. Regulatory problems, volatility, and security challenges are a few of these. But, as the technology advances and becomes more sophisticated, cryptocurrencies are likely to play a bigger part in global finance.

(A) What is cryptocurrency?

A cryptocurrency is a digital or virtual currency that is meant to be a medium of exchange. It is quite similar to real-world currency, except it does not have any physical embodiment, and it uses cryptography to work. A cryptocurrency is a coded string of information that represent ts a currency unit. Block chains are peer-to-peer networks that act as secure transaction ledgers while also keeping track of and organizing bitcoin transactions like buying, selling, and transferring. Cryptocurrency can function as a form of payment and an accounting system by encrypting data.

(B) Relation between block chain and cryptocurrency

The Blockchain is an incorruptible digital ledger of an economic transaction that can be programmed to record not just financial transactions but virtually everything of value. One of the application of block chain is cryptocurrency, block chain helps in the verification and traceability of multi step transactions needing verification and traceability. This application helps in securing transaction, reduce the cost of compliance and speeds up the process of data transferring.

(C) Whether cryptocurrency is called as a money?

Cryptocurrencies can be used to make payments but they do not satisfy the key characteristics of money namely:

i. **Wide accepted as a means of payment:** Money basically comes in the form of a nation’s currency, and is widely accepted by the citizens of the country as a means of payment. Although cryptocurrencies can be used to buy and sell things but they are not widely accepted as a means of payment.

ii. **Unit of account**: It refers to a measurement that can be used to value goods and services, make calculations and record debt. some businesses may accept cryptocurrencies as payment, they are commonly used to measure and compare prices.

iii. **Store of value**: It used to describe the property of an asset that is able to avoid depreciation over a long period of time. If a bitcoin does not achieve success as a medium of exchange then it will not be useful as a store of value.

iv. **Medium of exchange**: Cryptocurrency is a convenient form of medium of exchange. There isn't a need to bargain or exchange a particular commodity for a number of coins etc.

II. THE FEATURES OF CRYPTOCURRENCY[3]

1) Anonymity:

The only way to identify a transaction on a block chain is using a public key, which is a series of alphanumeric characters. Bitcoin transactions are pseudo-anonymous, this implies that while other people can view your transactions and your holdings, they are unable to determine the identity behind the public key.

2) Irreversible and immutable:

Due to the irreversible and irrevocable nature of cryptocurrencies, only the owner of the relevant private key is able to move their digital assets, and once a transaction has been recorded on the block chain, it cannot be reversed.

The virtual currency market is not institutionally regulated; therefore, commission transactions cannot be undone. If an issue occurs, such as wrong recipient information, no organization can assist with the error.

3) Decentralised in nature:

The majority of cryptocurrencies operate on distributed, globally dispersed networks of computers called nodes. Blockchains are open distributed ledgers where transactions are recorded and orthographically validated by network nodes. The transaction is transmitted across the peer-to-peer network and is copied by every node, reaching a large percentage of the nodes within a few seconds. As every member of the network has a copy of the ledger, there is no

[3] Conotoxia, https://conotoxia.com/cryptocurrencies/what-are-cryptocurrencies/cryptocurrency-features (Mar 10, 2023, 4.30 PM)

longer a need to place our trust in any one person, business, or organization. Instead, you can simply check your records against the ledger because you have a copy of it. The block chain is a decentralized ledger technology. in simple terms Decentralized means there is no central authority or intermediary regulation. which means its purely peer to peer transaction.

4) Security:

A private key can be used to secure specific virtual wallets where cryptocurrency can be kept. This indicates that the collected funds are only accessible to the user. The owner of virtual currency should use encryption technologies on their storage devices to strengthen security.

5) Fast development:

Holders can use their bitcoins through the tools and services that are quickly emerging. It is now possible to exchange cryptocurrencies for dollars or euros. Using conversion and exchange solutions, these currencies can be funded straight from the cryptocurrency wallet.

III. MERITS AND DEMERITS OF USING CRYPTO CURRENCY MERITS[4]

i. Removes single points of failure

Cryptocurrencies represent a new, decentralized paradigm for money. In this system, transactions between two parties are governed by trust rather than by centralized intermediaries like banks and financial institutions. As a result, a system based on cryptocurrency eliminates the chance of a single point of failure, such as a big bank, causing a chain reaction of crises around the globe, like the one brought on by the failure of American institutions in 2008.

ii. Absence of third party

Cryptocurrency transfers between two transacting parties can be faster than traditional money transfers since they do not employ third-party intermediaries. One great illustration of such decentralized transfers is flash loans in decentralized finance. These loans can be executed instantly and are used in trading because they are done without supporting collateral.

iii. Remittances and streamlined

The remittance sector is testing one of cryptocurrency's most popular use cases. At the moment, cryptocurrencies like Bitcoin act as intermediary currencies to speed up international money transfers. As a result, a fiat currency is transformed into cryptocurrency, transported across international boundaries, and then converted back into the target fiat currency. This technique simplifies and lowers the cost of the money transfer process.

[4] Investopedia, https://www.investopedia.com/terms/c/cryptocurrency.asp (Mar 15, 2023, 8.00 PM)

iv. Generation of returns

Investments in cryptocurrencies can be profitable. Over the past ten years, the value of cryptocurrency markets has surged, reaching approximately $2 trillion at one time. Bitcoin had a market value of more than $450 billion as of January 2023.

v. Easier to transfer funds

With the use of cryptocurrencies, it should be simpler to transfer money between two parties without the need of a reliable third party, such as a bank or credit card firm. Public keys, private keys, and other incentive schemes, like as proof of work or proof of stake, are used to secure such decentralized transfers.

(A) Demerits

i. Transactions are pseudonymous

Cryptocurrencies are pseudonymous, despite the fact that they advertise themselves as being anonymous. They leave a digital footprint that can be followed by organizations like the Federal Bureau of Investigation (FBI). This gives the option for financial transaction tracking by governments, agencies, and others.

ii. Prices are volatile

The price of cryptocurrencies traded on open marketplaces is unstable. For instance, the value of Bitcoin has fluctuated sharply, rising to almost $65,000 in November 2021 before falling to slightly more than $20,000 a year and a half later. Because of this, many people think of cryptocurrency as a passing trend or speculative bubble.

iii. Expensive to participate and earn

One of the fallacies of cryptocurrencies is that anyone with a computer and an Internet connection can mine them. Yet, mining well-known cryptocurrencies uses a lot of energy, perhaps as much as entire nations do. Because to high energy prices and the unpredictable nature of mining, the industry is now dominated by big businesses with billion-dollar annual revenues.

iv. Off-chain security issues

Although Cryptocurrency blockchains are very secure, off-chain key storage locations like exchanges and wallets are vulnerable to hacking. Over the years, numerous cryptocurrency exchanges and wallets have been hacked, sometimes leading to the theft of "coins" worth millions of dollars.

v. Pseudonymity allows criminal uses

Cryptocurrencies have become a popular tool with criminals for nefarious activities such as money laundering and illicit purchases. Cryptocurrencies have also become a favourite of hackers who use them for ransomware activities.

vi. Highly centralised

The wealth of cryptocurrencies is supposed to be divided among multiple parties on a blockchain, making them theoretically decentralized. Ownership is actually very concentrated.

IV. THE DIFFERENCE BETWEEN CRYPTO-ASSET, VIRTUAL CURRENCY AND DIGITAL CURRENCY?

i. **Crypto-asset**: It is a type of private asset that primarily depends on cryptography and distributed ledger or similar technologies part of their perceived or inherent value. According to the EU's proposed channels for future financial stability implifications, 2018: defines broadly as "a crypto -asset more broadly as "a digital representation of value or rights which may be transferred and stored electronically, using distributed ledger technology. Ex: include bitcoin, Ether, Tether etc.

ii. **Virtual currency**: According to the definition given by International Monetary Fund: Virtual currencies are digital representation of value issued by private developers, it is obtained and stored electronically given by private developer and can be used for variety reasons.

According to the definition given by Financial Action Task Force: Virtual currency is a digitally traded, and does not have legal tender (cannot be used for discharge of debt). According to the definition by European Central Bank: defines virtual currency as unregulated digital money controlled by developers and accepted by members of community.

According to the definition of Financial Conduct Authority of Kingdom: defines digital representation of value, cryptographically secured by blockchain, but cannot be used as currency which is stored and transferred electronically.

Therefore, from the above it is clear that virtual currencies and cryptocurrencies are not legal tenders, they are not centralized and not given by central bank of country. So, cryptocurrencies are Virtual currencies but all virtual currencies are not cryptocurrencies, tomorrow a different type of cryptocurrency may come into existence.

iii. **Digital currency**: It is a type of digital asset that represents a nations fiat currency and is backed by its central bank. Central bank digital currencies are a form of digital currency that is issued by a country's central bank. They are similar to cryptocurrencies, except their value is fixed by the central bank and equivalent to the country's fiat currency. There has been much development of CBDCs, and some countries have even implemented them. Considering that so many nations are looking into ways to switch to digital currency.

V. The status of cryptocurrency in India

In India cryptocurrencies are termed under the umbrella of Virtual Digital Assets. Section 3 of the Finance Act,2022 introduces Virtual Digital Asset as a taxable asset under Income Tax Act, 1961.

Virtual Digital Assets shall include all assets, tokens which are generated through digital representation having cryptographic means or by any other means defined under section 2(47-A) of the Income Tax Act, 1961.Furthermore, Virtual Digital Assets include prevailing crypto currencies and non-fungible tokens. Cryptocurrencies are a general term for virtually created assets that do not belong to Indian currencies. They either have intrinsic value or serve as a store of value that can be exchanged electronically.

1st April, 2023 onwards, VDA will be taxed at the rate of 30% under Section 115-BBH of the Income Tax Act. These digital currencies will be recognised as assets. The income derived from these assets will be taxable and subject to a 30% tax rate. Losses from the virtual digital asset's "transfer" (2 (47) of the Income Tax Act, 1961) that were computed cannot be offset against income determined in accordance with any provision of this Act. Losses from these assets cannot be offset by earnings from similar other assets.[5] Therefore it is appropriate to mention cryptocurrency as crypto asset because it is further backed by section 3 of Finance Act, 2022.

VI. Reserve bank of India's view on central bank digital currency[6]

In the year 2021-22 budget speech, Finance minister of India announced that Reserve Bank of India will launch a digital currency. The government in recent times announced the introduction of of CBDC as a RBI-controlled and managed digital counterpart of the country's fiat currency. Now Reserve Bank is launching it in a pilot projects for specified categories like wholesale and retail segments by selected banks and in a close groups.

The RBI's concept of CBDC includes a reimagined and digital version of the physical currency,

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[5] Shubhi Srivastava, https://www.scconline.com/blog/post/2022/03/31/regulating-crypto- currencies-vide-finance-act 2022/ (Mar 16, 8.00 PM)

[6] FORRESTER, https://www.forrester.com/blogs/central-bank-digital-currencies-cbdc-in-india-the-new-money-is-here/ (Mar 17, 2023, 7.00 PM).

the same importance as of sovereign paper currency, exchangeable as par with existing currency and to be accepted as a medium of exchange and a legal tender as a safe store of value.

VII. THE IMPACT OF CRYPTOCURRENCY IN THE INTERNATIONAL BANKING

Cryptocurrency, although being a relatively new financial technology, has the potential to significantly impact international finance. It is currently gaining recognition in the global financial system and can impact the international banking in the below following ways:[7]

1. **Decentralised in nature**: Cryptocurrencies are not controlled by any central authority like a government, central bank or a regulatory body. So, the decentralized nature helps the process less regulated, speedy and efficient. Often, unlike a traditional banking system a transaction from a resident country to foreign country or vice versa undergo conflict and ambiguity between the law of jurisdictions. This problem decreases the ease of transfer of transactions resulting in delay in business activities. Therefore, decentralization of cryptocurrency cut shorts the problem by avoiding intermediary between the parties.
2. **Currency exchange**: Cryptocurrency can be called as a best alternative for businesses operating across multiple jurisdictions because it can result in less time and cost consumption unlike traditional banking systems.
3. **Enhance in investment and development**: Since cryptocurrencies are not limited to any jurisdictions and is accessible even in the absence of internet, attracts investors all over the world which creates a 24/7 open market for cryptocurrency to be used as an investment asset.
4. **Cross-border payments:** The most significant function of cryptocurrencies is it can facilitate cross border payments enabling low cost and fast transactions done instantly unlike traditional banks which is subjected to many intermediaries, slow and expensive.
5. **Financial inclusion**: By granting access to banking services to people and enterprises who aren't currently covered by traditional banking systems, cryptocurrencies can assist to increase financial inclusion. This is crucial in developing nations because a large number of individuals lack access to conventional banking services.

(A) The demerit of cryptocurrency in the international banking

It is crucial to address that the usage of cryptocurrencies in global banking is still in its early

[7] Marissa A. Scicchitano, https://www.wolfandco.com/resources/insights/how-cryptocurrencies-may-impact-the-banking-industry/ (Mar 16, 2023, 5.30 PM)

stages and that there are still a number of issues that need to be resolved like Regulatory problems, volatility, and security challenges etc. Although, cryptocurrencies offer some benefits in terms of speed, security, and anonymity, there are also many threats and cons associated using them as an international banking system, namely:

1) Lack of centralised authority:

The use of cryptocurrencies for financial transactions may be challenging for governments and financial institutions to oversee and regulate it because they operate outside the constraints of conventional banking, cryptocurrencies are susceptible to fraud, misuse, increase in money laundering activities, terrorist and cyber threats etc.

The maxim named "Ubi Jus Ibi Remedium" means where there is a right there is a remedy. Since, cryptocurrencies are not backed by Indian laws or a universal legal framework any fraud or loss is not remedied by a sovereign authority. For Example, we have Securities Exchange Board of India Act, 1992 to regulate stock exchanges in India and any right being infringed we have a remedy to sue for the loss. Whereas cryptocurrencies of decentralized nature have no sovereign remedies available for any loss or threats.

2) Cybersecurity risks:

The adoption of cryptocurrency in the International framework poses greatest challenges for central bank of the country to have a infrastructure shielding the prime target of cybercriminals from crypto hacking, cyber thefts, scams, phishing emails and malware etc.

Adoption of which launches a vital problem to the country of the immutable feature of the crypto currency because it is difficult to change, alter or modify the transaction as it is backed by the hash function. On the other hand the same immutable feature shields against hacking and cyber threats.

Consensus mechanism of 51% for validating the transaction can also lead to a 51% attack, when a group of miners control more than 50 % of cryptocurrency mining power resulting in manipulation of blockchain and double spend coins.

3) Potential for illegal activities:

Cryptocurrencies can also be used for illicit pursuits including money laundering, tax avoidance, and financing of terrorism. More regulation and oversight from governments and financial organizations may result from this because tax is one of the aspects of source of income to the government. Tax evasion leads to economic inequalities resulting in rich growing more richer and others resulting into a poor state.

4) Volatility:

The value of cryptocurrencies is incredibly volatile, changing drastically over very short times and therefore makes money unreliable as a means of payment and store of value. the nature of volatility drastically effects the very function of banking system.

5) Lack of acceptance:

Very few countries like El Salvador, Slovenia etc accepted cryptocurrency as a currency. Whereas India is paving a way towards Central Bank Digital Currency and there is no universal legal framework for Crypto. So, any discrepancies in which leads to complete collapse of the economy.

6) Anonymity:

The basic feature of decentralized cryptocurrency is the concept of anonymity, which means peer to peer transactions takes place in absence of intermediary without disclosing the identity behind them.

Non-disclosure of which becomes a challenge to the banks to track down the financial transaction of a person which deflects in not knowing the souce of income.

VIII. What is a crypto loan?

A crypto loan is a sort of secured loan in which you receive funding from a lender in exchange for liquidity that you will repay in instalment's using your cryptocurrency holdings as collateral. You receive your cryptocurrency back at the conclusion of the loan term as long as you complete your payments on time and repay the loan in full.

The loan amount for a cryptocurrency is typically expressed as a loan-to-value ratio of the cryptocurrency you are using as collateral. With a lender like Binance, a person can borrow up to 50% of the value of your cryptocurrency; with a lender like Youholder.com, can borrow up to 90%. With Bitcoin and Ethereum being the most popular cryptocurrencies, some lenders accept up to 40 different cryptocurrencies as collateral.[8]

There are two types of crypto loans:

1. Centralized Finance: loans are custodial crypto loans where a lender has control over your crypto during the repayment term. Most crypto loans fall under the CeFi umbrella.
2. Decentralized Finance: Smart contracts are used in Decentralized Finance, or DeFi,

[8] Ronita Choudhuri-Wade, https://www.nerdwallet.com/article/loans/personal-loans/what-is-a-crypto-loan (Mar 18, 6.00 PM)

loans to make sure you fulfil the conditions of the loan. You still have control over your crypto assets, but if you fall behind on payments or default, a lender may take automated action against your account.

The interest rates for Decentralised Finance crypto loans may be greater than those on Centralised Finance.

IX. The G20 summit on regulation of having crypto asset

The G20 Summit was established as a forum for the central bank governors and finance ministers to discuss and put their choices into action. The summits were set up in response to the financial crisis of 2007–2010 and to acknowledge that important rising nations were being left out of major conversations about the global economy and governance norms.

The G20's digital plan emphasises the need for technical advancement as well as the idea of a future built on openness, transparency, and consensus. This works well with blockchain technology, which relies on consensus amongst nodes to operate on a peer-to-peer basis. Blockchain might present an opportunity as our time is increasingly marked by economic fragmentation, anti-globalization attitude, and a lack of trust in the global economic system following the 2008 financial crisis.[9]

Representatives from all over the world discussed key issues and difficulties affecting the global economy at the summit, which was held in Argentina. To stop the continuous financial crises, it placed emphasis on the need for creative economic changes, foreign policies, and sustainable growth.

The leaders concluded that assets like Cryptocurrency raised "problems with consumer and investor safeguards, market integrity, money laundering, and terrorist funding" after a number of conversations on blockchain and cryptocurrencies. The debates covered concerns on how the blockchain technology may harm the current economic structure, but it gained backing from several policymakers.

Also, the leaders urged "international standard-setting bodies (SSBs) to continue their supervision of crypto-assets," including evaluating the dangers associated with such assets. Yet, not all nations were able to come to an agreement about the regulation of digital assets. Therefore, it is clear from the above that till date not all the nations have come to the agreement on regulation of the crypto assets.

[9] Synergia Foundation, https://www.synergiafoundation.org/insights/analyses-assessments/g20-monitor-cryptocurrencies (Mar 19, 2023, 5.00 PM)

X. SUGGESTIONS AND RECOMMENDATIONS

Although cryptocurrencies offer some benefits in terms of speed, security, and anonymity, there are also several disadvantages and potential threats associated with using them as an international banking system. Some of the challenges include the following below**: -**

AML and KYC issues: If the transactions are simply connected to the transaction ID on the blockchain by being associated with a bank account through a financial institution. This makes it easier to track back the participants' financial transactions, which diminishes the feature of anonymity. Additionally, several banks are concerned about the lack of anti-money laundering (AML) and know your customer (KYC) laws around transactions with digital currency, which is why this kind of pseudonymity alarms them. Banks frequently believe that bitcoin transactions cannot be monitored for AML and KYC purposes, which could result in shady activities and fraud on the network.

Financial Institution should come up with a infrastructure to shield the above mentioned concerns.

1) **EXPERT ASSISSTANCE**: Banks could offer interest-bearing cryptocurrency accounts that allow consumers to invest their cryptocurrency through other financial instruments or on the back end. By serving as a dependable third party with a solid reputation in the financial sector who can secure clients' funds, banks may help investors who aren't specialists in the intricacies of cryptocurrencies reduce some of their anxiety.
2) **SECURITY CONCERNS**: Banks can assist cryptocurrency owners in easing their security worries. Many holders are concerned about the hacking of personal wallets and exchanges. Established institutions might aid in protecting digital currency from theft or hackers, relieving customers' concerns. Putting cryptocurrency under bank control may help reduce crime or the perception among outsiders that cryptocurrency transactions are not secure.
3) **PAYMENTS:** Banks can use public blockchains, including stablecoins, to speed up their payment operations, as stated in the most recent Office of the Comptroller of the Currency letter. Blockchain technology offers clearing houses a quicker and more affordable replacement when processing transactions. Banking institutions might use blockchain technology to accelerate clearing and settlements.
4) **SMART CONTRACTS**: When entering into an agreement through a smart contract, there’s a reduced level of trust needed among parties because the success of the

transaction relies on computer code instead of an individual's behavior. Banks may increase that trust by using these smart contracts as a trustworthy third party in mortgages, business loans, letters of credit, and other transactions.

In addition to the suggestions mentioned above, it is crucial to take into account cryptocurrency's drawbacks, which include volatility, cybersecurity threats, anonymity, and the possibility for unlawful activity. The lack of a legal framework for cryptocurrencies, which are not supported by Indian laws or a global legal framework, is the most obvious flaw among them. As a result, any fraud or loss is not compensated by a sovereign authority. Therefore, cryptocurrencies pose significant risks and challenges that need to be addressed before they can be widely adopted as an international banking system.

XI. Conclusion

The focus of bank and government activities has shifted to cryptocurrencies, which are frequently portrayed as a way to get away from fiat money and traditional banks. The ability of a central bank to manage a fiat currency is largely dependent on the sovereignty of the nation in which it is based, as well as the existence of a tax-paying populace that sustains the country's monetary, banking, and governmental systems. Now, if a central bank, can no longer regulate inflation or the security, soundness, and stability of your economic and financial institutions of the currency then there will be devastating effect on economy.in the absence of sovereign control over the value of currency the economy will suffers and people and businesses start to distrust the system. therefore, considering the above India's stand towards having Central Bank Digital Currency gives the benefit of universal accepted legal tender,stable consistent with central bank price, centralized nature, verified and called as fiat currency is more safer and gives the same benefits as cryptocurrency.

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