Crypto-assets: Is it the beginning of a new era for "Wealth" or just the "Geeks at Play"?

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Since its inception in 2009, crypto-asset, which for long was considered as an investment sideshow for computer geeks has come a long way to interest both the mainstream investors and governments, alike across the globe. PwC report (3rd Annual Global Crypto Hedge Fund Report 2021) states that the total assets under management of crypto hedge funds globally increased to nearly US$3.8 billion in 2020 from US$2 billion the previous year. It is believed that this amount will only increase over the coming years as the crypto market is now considered to be the future of the financial market, for payment and investment. Crypt-assets are mostly supported by the blockchain technology, which makes the system secure, safer, faster and sometime anonymous. Which also raises the concern that crypto-assets could be used as a powerful new tool to move and store illicit funds, out of the reach of law enforcement and other authorities.

In India, since the Reserve Bank of India (RBI) lifted its ban on crypto-assets in March 2020, the crypto-asset market has witnessed increased interest, especially the smart investors who want their money to grow in line with global growth rate. India, where legality of crypto-assets are still uncertain, has the highest number of crypto owners in the world at 10.07 crore, according to broker discovery and comparison platform BrokerChooser.

At present, the blockchain technology and the various crypto-assets using such technology are at their nascent stage, with many layers of interaction and utilities. The subject is vast, and this article attempts to reflect on some of the interesting and exciting aspects of the crypto-assets and the blockchain technology.

What is Blockchain technology?

A blockchain is essentially a "digital ledger of transactions" that is duplicated and distributed across the entire network of computer systems on the blockchain. Each block in the chain contains a number of transactions, and every time a new transaction occurs on the blockchain, a record of that transaction is added to every participant's ledger. Thus, to change a record on the blockchain, record on every participant's ledger/network computer needs to be changed, making the system secure and difficult to infringe. The blockchain technology relies heavily on cryptography and data security, especially in terms of message authentication. There are protocols in place to instruct computers on blockchain how to verify and add transactions.

Public and Private Blockchain System: Blockchain systems can be public or private in nature. In case of public, participants are anonymous by default and anybody with a valid version of the software can participate and create transactions. Whereas in case of a private blockchain, participation is more controlled, membership to such blockchain network can be restricted to participants who have been subjected to required scrutiny, among others. Additional system safeguards can also be incorporated in such private blockchains. Thus, the

technology has potential for use in businesses, by providing a system of records which will provide consensus, etymology, security and finality around the transaction within the business network.

What is crypto-asset?

Crypto-asset is a digital asset, which is based on blockchain technologies, and includes cryptocurrency, non-fungible token (NFT) and other digital tokens.

What is cryptocurrency?

A cryptocurrency is a form of digital asset designed to work as a medium of exchange using cryptography to secure the transactions and to control the creation of additional units of the currency. There are various cryptocurrencies in the market such as Litecoin, Ripple, Bitcoin, and Ethereum.

The value of a cryptocurrency as a digital asset is determined by the respective number of the cryptocurrency on offer and in demand on the market. The value of a cryptocurrency may depend on whether and, if so, how many suppliers of goods and services accept the respective cryptocurrency as a means of payment. As a result, the value of a cryptocurrency, like the value of securities, derivatives or other financial instruments traded on financial markets, is subject to price fluctuations.

The cryptocurrency is not controlled by a central authority or backed by any Government and therefore, is faster and cheaper, and the underlying technology ensures security of the transaction. In most cases, cryptocurrency is not denominated in or even tied to a sovereign currency, but rather are denominated in their own units of value. However, the value stored and transferred in the cryptocurrency can be denominated in a sovereign currency from any cryptocurrency exchange. Thus, providing a new method for transmitting value over the internet.

However, no sovereign control over the cryptocurrencies could lead to issues related to consumer protection, market integrity, money laundering, high market volatility, liquidity risk, among others. Cryptocurrencies such as Bitcoin, while represents a great opportunity for financial innovation, also raises security concerns (such as money-laundering, illegal-funding), as such currencies can be traded on internet and across territorial borders without requiring any face-to-face interaction. For example, Bitcoin addresses/accounts have no names or other customer identification attached, and the system has no central server or service provider. The Bitcoin protocol does not require or provide identification and verification of participants. It allows anonymity which is not possible with traditional credit and debit cards or older online payment systems, such as PayPal.

Is Cryptocurrency currency or security?

Cryptocurrency is not given the status of legal tender or currency in most jurisdiction (El Salvador was the first country in the world to accept Bitcoin as legal tender), as it is not issued nor guaranteed by any Government or Government agencies. In case of cryptocurrency, its value is determined only by agreement within the community of users of the virtual currency.

As cryptocurrency is not considered to be currency in most countries, it is typically not subject to securities laws. However, cryptocurrency could be subject to securities law if it is used as a financial instrument. For example, transaction for purchase and sale of cryptocurrency, when the cryptocurrency is immediately taken delivery in the digital wallet will generally not be subject to securities laws. However, if cryptocurrency is traded on a cryptocurrency trading platform (CTP) and such CTP is required to hold the cryptocurrency in a digital wallet on their platform, this could create an ongoing contract based on the value of the underlying cryptocurrency, and this contract may be subject to securities regulation.

In other cases, cryptocurrency would fall within the definition of security if it has attached rights or its value fluctuates, for example, when a security token carries rights which are typically attached to equity shares, such as voting and dividend rights, or where token prices change with the change in the value of the underlying asset, such as the stock of a public traded company.

In addition, use of cryptocurrency in the financial accounting of the company, may raise concerns. When vendor is paid using cryptocurrency, the accounting would require intangible asset to be used as a tangible one, i.e., a financial versus non-financial asset. However, more and more mainstream financial services and fintech companies are now offering customers the possibility of holding or exchanging in cryptocurrency. It may take some-time before the market is comfortable with this kind of reporting.

Further, the treatment of digital assets varies substantially from country to country. When a company uses digital assets like Bitcoin to transfer funds across borders, it has to ensure compliance with the local law with respect to tax and security.

Why is crypto asset valued?

An intrinsic value of an asset is a value that it possesses in itself, that is the price people would pay to obtain such asset. The value of an asset is defined essentially by two main characteristics, scarcity and utility. Bitcoin and many other crypto-assets are limited in number, thus, making such crypto-assets scare. There are only 21 million Bitcoins ever to exist in the world, and with the increase in demand for crypto-assets the value of Bitcoins has only increased. Secondly, crypto-assets work on security of blockchain technology which makes counterfeit very difficult, if not impossible. Thus, giving crypto-assets the utility as a viable mode of payment and investment, among others.

Fungible and non-fungible crypto-asset?

Fungible asset is an asset which can be interchangeable with another asset and as such is indistinguishable from such asset. This allows same value to the asset in the market, example, 1 USD note can be changed with another 1 USD note, and both will be considered to have the same value, hence the 1 USD note is a fungible asset. In the crypto-asset market Bitcoin will be considered as a fungible crypto asset as one Bitcoin can be exchanged for another.

Non-fungible asset on the other hand is an asset which is unique and cannot be exchanged for anything else. Art-works, such as the painting of Mona Lisa will be a non-fungible asset as there is only one original copy of the artist in the world, which makes it unique and gives it a different value from any other painting in existence. The crypto-assets scene has recently witnessed the craze over non-fungible digital assets in the form of non-fungible token ("**NFT**"). A NFT is linked to an object, typically a piece of digital art, music, collectable, in-game item or videos, which has value.

It is important to understand that a NFT is not the digital asset itself, but an electronic record/token representing ownership of such digital asset. Thus, owning an NFT does not necessarily mean that you own the asset underlying the NFT. The right of the NFT holder to the underlaying digital assets will be as set out in the terms and conditions governing the NFT.

Why NFTs?

NFT can be created for any items, such an art work, video, tickets, events, among others, and can function like membership cards or tickets, providing access to events, exclusive merchandise, and special discounts. An NFT ticket for an event can be traded on every Ethereum marketplace, for an entirely different NFT, such as for an art NFT. Twitter co-founder Jack Dorsey sold his first ever tweet as an NFT for more than USD 2.9 million. NFT has allowed a way to separate the "owner" of a digital artwork from someone who just saved a copy of such "artwork" on his/her desktop, thus giving identify and value to such "digital asset". The NFT has metadata embedded through a code that allows the tracking of the digital asset, allowing investors to buy and sell such assets in the crypto market.

What are smart contracts?

Smart contracts are digital contracts, which are programmed with pre-determined terms and conditions ("if/when…then…" statements that are written into code on a blockchain), and performs automatically upon the satisfaction of certain conditions. Smart contract automatizes the digital task, without requiring a centralized entity to manage and approve a transaction. For instance, a smart contract will automatically deduct commission and deposit the same to the account of the NFT platform upon the sale of an NFT on the marketplace provided by the platform.

In certain cases, a smart contract may need to reply on the information provided by a third-party service provider or the other party, for its enforcement. This could introduce the possibility of receiving tampered or false data. Example, when the condition is related to betting in a game in the real world, the smart contract will be executed in accordance with the information provided by the third-party service provider to decide the winner.

NFT works with smart contract. Typically, a smart contract is embedded in an NFT. Example, an artist can create an NFT for his/her art work with a smart contract embedded in it with the terms of use. Where a smart contract is embedded in a movie NFT, the user can make payment as per the terms of the smart contract and access the movie.

Smart contract is intended to work outside the legal system as its auto-enforceable. Further as the code is written on a blockchain, records are encrypted, makes them very hard to hack.

What are the various Intellectual Property and legal issues with NFT?

NFT can be created over any form of digital items. While this has resulted in expanding the market of NFTs, it has also raised question related to intellectual property, license and other use of NFTs. NFTs are typically acquired either by direct purchase from NFT platforms, where the platform sells unique NFTs associated with digital asset, example, THE SANDBOX platform allows its users to purchase, use, collect, transfer, and trade unique digital game assets containing exclusive content licensed from third-party IP partners. The rights associated with the NFTs are provided on the platform itself.

Alternate way of acquiring NFT is by direct purchase from the minter of such NFT through a NFT marketplace. For example, on the platform OpenSea, an artist can mint its art work to create an art NFT and sale it at the marketplace available on the platform. In this situation, the technology has not found a solution to clearly and conspicuously "attach" board terms and conditions for such an NFT, and ensure that those terms are followed by and binds the subsequent owners. Most NFT platforms act as a facilitator between the buyers and sellers to transact in NFTs. Their obligation is limited to providing a marketplace for the parties. The existing technology does not provide mechanism to verify copyrights and property rights associated with transacted NFTs. This has led to situations where NFTs have been created for the same work of art or collectible, or have been created on work over which the owner did not have any ownership rights. Resulting in multiple ownership or false chains of ownership over the digital work.

Transfer of copyright: The law provides that the copyright of a work remains with the author, unless and until ownership is transferred to someone else. Therefore, unless the NFT terms clearly provide for a transfer of copyright in the underlying asset to the buyer, by default the author will continues to be the copyright owner and not the NFT holder. Further, in many cases the work may have had contribution from more than one creator, or derived work, in which case it is difficult to identify the author of the copyright. In addition, certain rights, such as moral rights, cannot be waived.

Copyright of the digital item can be transferred but may be tricky given the blockchain context. Copyright ownership can be transferred only in writing and upon being signed by the copyright owner, or his authorized agent. This rule applies to all subsequent transfer of copyright ownership. Blockchain works on technology providing for digital wallets and absolute anonymity for buyer and seller, implementing a written contract to transfer copyright would be a challenge for the blockchain developer.

Other Intellectual Property Related Issues: NFTs are designed to last for eternity, which raises the question what happens when the copyright on the underlying NFT work is termination or expire? Further, can additional rights be granted with respect to an existing NFT, or a new NFT needs to be created by the owner of the underlying digital asset for granting additional rights with respect to the same digital asset.

Who has the power?

One of the major issues that has to be considered is the legal jurisdiction of court. In view of the global nature of internet, crypto-assets, NFTs can be bought and sold across the globe. Typically, the platforms or the sellers of such assets may have provision in the terms of use for a specific court/jurisdiction or arbitration, but if a breach occurs in another country than regardless of the terms of the contract, the foreign court may assume jurisdiction on account of cause of action arising in such state.

Conclusion

The crypto-asset is an example of technology bypassing law, there are concerns, but in the world driven by technology crypto-assets may be intangible but at times can become more real than comprehensible.

European Union (EU) Parliament has also recommended that the law should not go for a total ban of the interaction between cryptocurrency business and the formal financial sector as a whole. It has recommended that good safeguards should be put in place to regulate concerns over money laundering, terrorist financing, tax evasion, among others, with the intention to protect the users (such as ordinary consumers and investors).

In India, the Reserve Bank of India (RBI) had by issue of a "Statement on Developmental and Regulatory Policies" on April 5, 2018, directed the entities regulated by RBI (i) not to deal with or provide services to any individual or business entities dealing with or settling virtual currencies and (ii) to exit the relationship, if they already have one, with such individuals/ business entities (Circular). This Circular was challenged before the Supreme Court of India (SC). The SC while considering the matter analysed the various reports, judgments, laws and regulations applied globally to crypto-assets, and held that "*when the consistent stand of RBI is that they have not banned VCs and when the Government of India is unable to take a call despite several committees coming up with several proposals including two draft bills, both of which advocated exactly opposite positions, it is not possible for us to hold that the impugned measure is proportionate*".

Without going into the legality of the crypto-asset, the SC concluded that RBI is conferred with broad power to regulate, but not the power to prohibit crypto assets. Further, that though the Circular was within the power of RBI but RBI should have considered less intrusive measures, and the Circular was set aside by the SC on the ground of proportionality.

Many central banks around the world are also considering developing digital versions of their fiat currency to leverage the benefits of the underlying technology. LHV Pank, the largest independent Estonian bank was the first bank in the world to experiment with programmable money when it issued €100,000 worth of cryptographically-protected certificates of deposits. The Dutch central bank is also experimenting with a bitcoin-based virtual currency called "DNBCoin".

The crypto-assets market lacks legal certainty, and clarity on regulatory treatment of such assets. As a result, the crypto market has failed to reap the benefit of this new wave. Most countries are yet to decide upon its regulatory approach towards crypto-asset, but have accepted the importance of crypto assets and the need to keep a closer eye.

The law and technology need to work together to find a way to provide the balance required for the security, utility and convenience of crypto-assets in view of the potential of the market, and to protect the interest of the investors and the consumers, equally.