STATUS OF CRYPTOCURRENCIES UNDER INVESTMENT LAW: NOT SO CRYPTIC ANYMORE?

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Abstract

Cryptocurrencies (and their various forms) have been a hot topic of interest recently, with a plethora of literature discussing the implications they may have on global finance. However, there has not yet been a conclusive answer as to whether these cryptocurrencies constitute 'investment' under the international investment framework. More governments are looking to participate in this new payments infrastructure by issuing their own versions of cryptocurrencies. Start-ups, and other private entities too, are using cryptocurrencies as an alternative to equity. It thus becomes pertinent to examine whether the current body of law favours the treatment of these cryptocurrencies as 'investment' and consequently, if disputes concerning them, can be resolved via investor-State arbitration. Other than traditional cryptocurrencies, it also remains to be seen whether State-issued central bank digital currencies and cryptocurrency tokens would fall within this ambit. In this article, the authors argue that international investment law must accommodate technological innovations and pave the way for the inclusion of various forms of cryptocurrency as 'investments'.

I. Introduction

In recent times, an explosion has been seen in the popularity of cryptocurrencies, with Bitcoin taking the lead. In fact, it has been estimated that the value of the cryptocurrency market today is over USD 103 billion,[1] with future growth expected as more and more forms of cryptocurrencies emerge. Governments are also slowly starting to have a favourable (or at least not a completely negative) outlook towards cryptocurrency. In fact, in accordance with the common adage, "*if you can't beat them, join them"*, governments have started considering developing their own version of digital currency.[2] These are known as central bank digital currencies ["**CBDCs**"].[3] Consequently, it becomes important to understand where CBDCs and cryptocurrencies are placed in the international legal sphere. Are they actually considered currencies? Are they assets? And more pertinently, will they be protected under bilateral investment treaties ["**BITs**"]?

In the authors' view, digital currencies can be classified into three informal categories. *First*, traditional cryptocurrencies, such as Bitcoin and Ether, which are not issued by a particular entity. *Second*, cryptocurrencies that are issued by private entities, such as start-ups, to raise money for their own use. In this category we will also include the latest trend of financial institutions issuing their own forms of cryptocurrency.[4] *Third*, CBDCs issued by the central bank of States, which are essentially a new form of money, issued digitally and intended to serve as

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1 *Total Market Capitalization*, COINMARKETCAP, *available at* https://coinmarketcap.com/charts/.

2 Jane Wild, *Central banks explore blockchain to create digital currencies,* FINANCIAL TIMES (Nov. 2, 2016), *available at* https://www.ft.com/content/f15d3ab6-750d-11e6-bf48-b372cdb1043a.

3 CBDCs are not in common use currently and are still at a developmental stage.

4 *See, e.g.,* for Japan and Iran *Japanese Bank Mizuho Financial Group To Release Yen-Pegged J-Coin Stablecoin And Pay App*, BITCOIN EXCHANGE GUIDE (Feb. 21, 2019), *available at* https://bitcoinexchangeguide.com/japanese-bank-mizuho-financial-group-to-release-yen-pegged-j-coin-stablecoin-and-pay-app/; Arno Maierbrugger, *Islamic stablecoin launched in Iran amid US sanctions*, GULF TIMES (Feb. 05, 2019), *available at* https://www.gulf-times.com/story/621295/Islamic-stablecoin-launched-in-Iran-amid-US-sancti.

legal tender.[5] Unlike cash, they will not have a physical form, but they will be available to the public at large.[6]

Given their rising prominence, it is essential to decipher the status of those who invest in assets such as cryptocurrencies and the remedies that they would be able to seek in case States took measures to negatively impact the assets. The question becomes particularly difficult when trying to understand the nature of cryptocurrencies, whether they are assets or currencies, and how they could be fitted into the mould of 'investment'. We argue that the changing nature of technology and payment systems should be accounted for in international investment law. The international investment atmosphere should be one, which allows investors to partake in these innovative instruments, while protecting their rights. Not classifying cryptocurrencies as investments would take away the jurisdiction of arbitral tribunals constituted under BITs, which in our opinion would be the ideal mechanism to resolve crypto-related disputes.

This article aims to evaluate whether digital currencies can be protected under the existing investment regime. It explains in **Part II** what cryptocurrencies are and the technology behind them. **Part III** examines the approaches taken by various States regarding CBDCs. **Part IV** discusses the jurisprudence of the definition of 'investment' under international investment law and practice. In **Part V** the authors analyse whether digital currencies can constitute investment. Finally, in **Part VI**, the authors conclude the article.

II. Understanding Cryptocurrencies

The concept of cryptocurrency was first introduced by Satoshi Nakamoto in 2008, as "*a peer-to-peer electronic cash system*".[7] Cryptocurrency is a combination of the terms 'cryptography' and 'currency'. 'Cryptography' is the practice of creating and understanding codes that keep information secret,[8] while currency is the money in circulation in a particular country, issued by its government. In simple terms, cryptocurrency is understood as a form of digital or virtual currency. The currency is kept secure and transactions are verified using cryptography.

A. Blockchain & Cryptocurrency

This form of currency cannot be traded in the physical form of notes or coins, or through traditional banking media such as cheques. Rather, it exists on a platform called the 'blockchain', which is the main technological innovation behind cryptocurrencies. 'Blockchain' is a peer-to-peer, global distributed ledger that records transactions between members on the blockchain platform without the interference of any third party, such as a bank or financial institution, and is cryptographically secured.[9] Each member has a copy of the ledger, and any change to the blockchain can only be made with the consensus of all the members. This consensus is achieved

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5 Tommaso Mancini Griffoli et al., *Casting Light on Central Bank Digital Currencies*, at 7, IMF Doc. SDN/18/08 (Nov. 2018).

6 Generally central bank reserves are available to only select institutions and the purpose of the central bank is to facilitate interbank settlements. In case of CBDCs, the central banks will be directly issuing the currency to the public.

7 Satoshi Nakamoto, *Bitcoin: A Peer-to-Peer Electronic Cash System*, SATOSHI NAKAMOTO *available at* http://satoshinakamoto.me/bitcoin-draft.pdf.

8 *Cryptography*, CAMBRIDGE DICTIONARY, *available at,* https://dictionary.cambridge.org/dictionary/english/cryptography.

9 IMRAN BASHIR, MASTERING BLOCKCHAIN: DISTRIBUTED LEDGER TECHNOLOGY, DECENTRALIZATION, AND SMART CONTRACTS EXPLAINED 16 (2d ed. 2018).

with the use of pre-designed algorithms.[10] The process of adding transaction records to the blockchain is known as 'mining'. It is a resource intensive process requiring great computational power.[11] Those who are involved in the mining process are called miners.

To understand this technology, let us take the example of a train which has multiple coaches. The coaches are analogous to the 'blocks' of the blockchain. Every coach or 'block' records information relating to a set of transactions. While in trains, the coupling links the coaches to each other; in blockchain, the blocks are linked with the use of a 'hash'. A 'hash' is a digital fingerprint of the data in the previous block; this enables the formation of a chain, as each block is linked to the one before it.[12] Basically, blockchain is a "*chain of growing successive unalterable blocks of data built upon on another*".[13]

The blockchain network is distributed across a network of computers and an individual computer on this network is called a 'node'.[14] Each node has a record of all the transactions made on the blockchain. Cryptocurrencies are the tokens used within the blockchain network to send value and pay for transactions.[15] Taking the example of Bitcoin, if person A sends a Bitcoin to person B, this transaction will be noted on a block. Miners using a node will solve a complex mathematical formula in order to validate the block, as well as the transactions within it, and add it to the blockchain (this is the process of mining).[16] Everyone on the blockchain network will be informed of the transaction, as it is a public ledger. Generally, the miners are rewarded for their efforts in the form of cryptocurrency itself.[17]

B. Features of Digital Currency

A significant feature of cryptocurrency that endears it to its users is its organic nature that emanates from the lack of government control over it.[18] Members on the blockchain network can directly transfer funds to each other, without any interference or control by the government. This advantage also arises due to the 'decentralised' characteristic of cryptocurrency. There is no centralised institution (for example, a bank) that is involved in recording or facilitating cryptocurrency transactions; instead, a record of all transactions is maintained by the blockchain. This eliminates the presence and need of middlemen.[19] An elimination of these middlemen reduces transaction costs (as charges such as transaction fees do not need to be paid to intermediaries like banks) and increases the speed of sending and receiving currency.[20]

Another feature of cryptocurrency, and perhaps a key one, is that it offers anonymity to its users. For example, in the case of Bitcoins, the transfer takes place from one cryptographically

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10 *Id.* at 17.

11 Ed Howden, *The Crypto-Currency Conundrum: Regulating an Uncertain Future*, 29 EMORY INT'L L. REV. 741, 749 (2015) [*hereinafter* "Ed Howden"].

12 TIANA LAURENCE, BLOCKCHAIN FOR DUMMIES 10 (2017).

13 SEAN BENNETT, BLOCKCHAIN: A GUIDE TO UNDERSTANDING BLOCKCHAIN (2017).

14 *Id.*

15 *What's the difference between blockchain and cryptocurrency?*, WHAT THE FAQ, *available at* https://blockchain.wtf/what-the-faq/blockchain-cryptocurrency-difference/.

16 Ed Howden, *supra* note 11, at 748-9.

17 DR SIPHIWE HLUBI, CRYPTOCURRENCY: THE PRESENT AND THE FUTURE! 26 (2018).

18 Anusha Pirani, *Cryptocurrency: A Magical Bubble or the Future of Currency*, 5(8) CT. UNCOURT 29-31 (2018).

19 PAUL VIGNA & MICHAEL J. CASEY, THE AGE OF CRYPTOCURRENCY: HOW BITCOIN AND DIGITAL MONEY ARE CHALLENGING THE GLOBAL ECONOMIC ORDER 5 (2015).

20 *Id.*

generated address to another and users have access to these addresses.[21] Thus, the real identity of a user is not known. Further, cryptocurrency transactions are highly secure due to the underlying blockchain technology. The data contained in the blockchain cannot be manipulated easily.[22] Moreover, in case one computer crashes, it would not impact the cryptocurrency as the other computers on the network would still be working and each computer would have a record of the transaction history.

Despite these benefits of cryptocurrencies, it should be noted that there are some inherent drawbacks associated with their use as well. *Inter alia*, these drawbacks include *first*, they are not immune from attacks by hackers. For example, in the first half of 2018 alone, cryptocurrencies worth USD 731 million were stolen.[23] *Second*, cryptocurrencies lack legal backing i.e. they are not considered legal tender. Accordingly, a seller cannot be forced to accept payment in cryptocurrency. *Third*, they are susceptible to use for illicit activities such as corruption and terrorism, due to the absence of any regulatory control.

In juxtaposition to this, if we look at CBDCs, they successfully tackle the disadvantages associated with cryptocurrencies. However, while doing so, they unfortunately lose some of the key benefits of cryptocurrencies. As they will be regulated by the central bank, there is naturally a higher level of security granted to them. There will also be a lesser likelihood of them being used for illicit activities. Further, they will be legal tender in the State issuing them.

Additionally, depending upon the terms and conditions of their issue, the anonymity aspect may still be maintained, with details about the transaction only being revealed if the government requires the same through a court order or otherwise.[24] As the transactions will still be peer to-peer, the cost involved will be lower than in normal banking transactions. The primary disadvantage, though, is that the system will be monitored and controlled by the government.

In the case of digital currencies issued by private entities, the same is usually done through initial coin offerings ["**ICOs**"]. The entity interested in issuing an ICO first formulates the product or project that it hopes to raise funds for. Subsequently, it develops its own cryptocurrency or token.[25] Then, similar to an initial public offering ["**IPOs**"], it is offered to the public, generally in exchange for either other cryptocurrencies or fiat currency, thereby enabling the company to raise funds. Unlike IPOs however, an investor does not get an equity stake (ownership) in the company, instead an investor can make gains in two ways; *first*, by exchanging it for the product that the company will eventually produce and *second*, if the value of the token appreciates, by

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21 Joshua Baron et al., *National Security Implications of Virtual Currency*, RAND 12 (2015), *available at* https://www.rand.org/content/dam/rand/pubs/research_reports/RR1200/RR1231/RAND_RR1231.pdf.

22 For a discussion on the security aspect of blockchain, *see* Mike Orcutt, *How secure is blockchain really?,* MIT TECH. REV. (Apr. 25, 2018), *available at* https://www.technologyreview.com/s/610836/how-secure-is-blockchain-really/.

23 Joseph Young, *$731 Million Stolen from Crypto Exchanges in 2018: Can Hacks be Prevented?*, CNN (July 4, 2018), *available at* https://www.ccn.com/731-million-stolen-from-crypto-exchanges-in-2018-can-hacks-be-prevented/.

24 Tommaso Mancini Griffoli et al., *Casting Light on Central Bank Digital Currencies*, at 10, IMF Doc. SDN/18/08 (Nov. 2018).

25 While the process of creating a new cryptocurrency *prima facie* seems complicated, given the current technological advancements, it is achievable. For more information on this, see *Initial Coin Offering*, INVESTOPEDIA, *available at* https://www.investopedia.com/terms/i/initial-coin-offering-ico.asp.

trading it.[26]

C. Characterisation of Digital Currency

There is a significant difference between the characterisation of cryptocurrency and CBDCs, primarily because the latter has the backing of a State, which the former does not. The lack of a decentralisation aspect to CBDCs is what makes their characterisation different from that of cryptocurrencies.[27] Accordingly, here we will be discussing the characterisation of both CBDCs and cryptocurrency.

In the above explanation of cryptocurrency, we noted that it is a form of digital currency. However, can we actually categorise cryptocurrencies such as Bitcoin or Ether as currency? Currency, as defined above, is the money in circulation in a State, backed by its government. The requirements of 'money', as generally accepted, are: *one*, it must be a medium of exchange, *two* it must be a unit of account and *three*, it must act as a store of value.[28] These requirements imply that a currency is one that can be exchanged for goods and services; the value of these goods and services can be measured against the currency and the currency holds monetary value. It is questionable whether cryptocurrencies fulfil these criteria.

Cryptocurrencies are not readily accepted in exchange for goods and services. If a consumer goes to a shop and offers Bitcoin as consideration for a product, it is highly unlikely that the shopkeeper will accept it. In fact, it is estimated that a majority of bitcoin transactions are between speculative investors and only a minority are for the actual purchase of goods and services.[29] Further, the extreme price fluctuations this currency experiences makes it a poor unit of account and store of value.[30] Accordingly, several countries such as China[31] and Canada[32] have expressly stated that cryptocurrency is not 'currency'. This leads us to the question of, if not a currency, then how is cryptocurrency classified? It is interesting to note here that not only is there no consensus among States on how to classify cryptocurrency, but also among different regulatory bodies within a State. For example, in the U.S., different agencies had classified cryptocurrency as commodity, money, security and property![33]

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26 Arjun Kharpal, *Tokenisation: The World of ICOs*, CNBC (July 16, 2018), https://www.cnbc.com/2018/07/13/initial-coin-offering-ico-what-are-they-how-do-they-work.html; Marco Dell'Erba, *Initial Coin Offerings: The Response of Regulatory Authorities*, 14 N.Y.U. J. L. & BUS. 1107, 1110-1112 (2018).

27 Eswar Prasad, *Central Banking in a Digital Age: Stock-Taking and Preliminary Thoughts*, HUTCHINS CTR. ON FISCAL & MONETARY POL'Y 5 (April 2018), *available at* https://www.brookings.edu/wp-content/uploads/2018/04/es_20180416_digitalcurrencies.pdf.

28 N. GREGORY MANKIW, MACROECONOMICS 80 (7th ed. 2010).

29 David Yermack, *Is Bitcoin a Real Currency? An Economic Appraisal*, NAT'L BUREAU ECON. RESEARCH 12 (Dec. 2013), *available at* https://www.nber.org/papers/w19747.pdf.

30 For example, the price (by capitalisation) of ten leading cyrptocurrencies fluctuated by over 40% in May 2018, *available at* https://www.coinspeaker.com/monthly-cryptocurrency-market-analysis-may-2018/.

31 *Regulation of Cryptocurrency: China*, LIBRARY OF CONG. (July 7, 2018), *available at* https://www.loc.gov/law/help/cryptocurrency/china.php.

32 *Regulation of Cryptocurrency: Canada*, LIBRARY OF CONG. (June, 2018), https://www.loc.gov/law/help/cryptocurrency/canada.php.

33 Securities and Exchange Commission v. Trendon T. Shavers and Bitcoin Savings and Trust, No. 4:13-CV-416, 2013 U.S. Dist. LEXIS 110018, at *2 (E.D. Tex. Aug. 6, 2013) (U.S.), classifying cryptocurrencies as money; *IRS reminds taxpayers to report virtual currency transactions*, INTERNAL REVENUE SERV. (Mar. 2018), classifying cryptocurrencies as property; *see generally* Simon Chandler, *Money or Assets? How World Governments Define Cryptocurrencies*, COIN TELEGRAPH (Aug. 5, 2018), *available at* https://cointelegraph.com/news/money-or-assets-how-world-governments-define-cryptocurrencies.

A commodity is traditionally understood as a raw material or agricultural product that can be bought and sold.[34] Generally, all articles of trade or commerce are considered commodities.[35] A security on the other hand is an instrument of investment that denotes ownership or debt and by which, an investor hopes to earn profits through the efforts of another organisation.[36] Cryptocurrency simultaneously fits and does not fit these requirements. Lack of tangible existence and inherent value are arguments against the classification of cryptocurrency as a commodity.[37] Its classification as a security is disfavoured by the lack of a central organisation that sponsors its creation and sale and plays a significant role in its development and maintenance.[38] However, in the case of tokens acquired through ICOs, it can be argued that they are securities as there will be one company issuing and monitoring them. In Lithuania, for example, ICO tokens are considered securities.[39] In practice we see cryptocurrency being traded as a security as well as a commodity.

The most suitable classification of cryptocurrency is that of an asset, specifically, a digital asset.[40] In fact, several countries such as South Korea,[41] South Africa,[42] Mexico,[43] Israel, Norway, Vietnam, Czech Republic, as well as the G20[44] have considered it an asset. Further, classifying cryptocurrency as a digital asset does not preclude it from also being considered a commodity or security.[45] In the author's opinion, like in the case of CBDCs, it should be the nature of the transaction that should determine the characterisation of cryptocurrency. For example, if a cryptocurrency is being acquired through an initial coin offering, then it would be more in the nature of a security. On the other hand, if a cryptocurrency is being used to purchase goods and services, or being exchanged for another good, it could be considered a currency or commodity.[46] Thus, cryptocurrency has the potential to serve as a currency, security and commodity. This is the approach followed in Canada.[47]

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34 *Commodity,* OXFORD DICTIONARY, *available at* https://en.oxforddictionaries.com/definition/commodity.

35 *Commodity*, BLACK'S LAW DICTIONARY (9th ed. 2009).

36 *Security*, INVESTOPEDIA, *available at* https://www.investopedia.com/terms/s/security.asp.

37 Derek A. Dion, *I'll Gladly Trade you Two Bits on Tuesday for a Byte Today. Bitcoin, Regulating Fraud in the E-Conomy of Hacker-Cash,* U. ILL. J. L. TECH. & POL'Y. 165, 190-93 (2013).

38 Bob Pisani, *Bitcoin and ether are not securities, but some initial coin offerings may be, SEC official says,* CNBC (Jun. 14, 2018), *available at* https://www.cnbc.com/2018/06/14/bitcoin-and-ethereum-are-not-securities-but-some-cryptocurrencies-may-be-sec-official-says.html.

39 BANK OF LITHUANIA, POSITION OF THE BANK OF LITHUANIA ON VIRTUAL ASSETS AND INITIAL COIN OFFERING 4 (2019).

40 Ed Howden, *supra* note 11, at 766-67.

41 Kim Hyun-Bin, *Top South Korean Court recognises cryptocurrency as asset,* SOUTH CHINA MORNING POST (May 31, 2018), *available at* https://www.scmp.com/news/asia/east-asia/article/2148616/top-south-korean-court-recognises-cryptocurrency-asset; Kevin Helms, *Korean Supreme Court Rules Cryptocurrency Is Asset With Economic Value,* BITCOIN.COM (May 30, 2018), *available at* https://news.bitcoin.com/korean-supreme-court-cryptocurrency-asset-economic-value/.

42 Timothy Rangongo, *Own bitcoin or ethereum? Sars is coming for you,* BUS. INSIDER (Apr. 6, 2018), *available at* https://www.businessinsider.co.za/own-bitcoin-sars-is-coming-for-you-2018-4.

43 *Regulation of Cryptocurrency: Mexico*, LIBRARY OF CONG. (June 2018), *available at* https://www.loc.gov/law/help/cryptocurrency/mexico.php.

44 Jess Shankelman, *When Is a Bitcoin Not a Bitcoin? When It's an Asset, Says G-20*, BLOOMBERG (Mar. 20, 2018), *available at* https://www.bloomberg.com/news/articles/2018-03-20/when-is-a-bitcoin-not-a-bitcoin-when-it-s-an-asset-says-g-20.

45 Ed Howden, *supra* note 11, at 768.

46 Alina Vardanian, *Is Bitcoin a Currency, a Security, or a Commodity*?, MEDIUM (July 4, 2018), *available at* https://medium.com/cindx/is-bitcoin-a-currency-a-security-or-a-commodity-its-all-of-these-74b0b962e6d1.

47 Ed Howden, *supra* note 11, at 754-63.

On the other hand, CBDCs are issued by central banks of States and can possibly be characterised as 'money' due to the fact that they are State-backed. Further, one of the motivations behind their issuance is making money available in electronic form, and therefore, more accessible to people.[48] It has also been noted that the use and demand of cash has been diminishing, as innovations in technology become more prominent.[49] From this it can be inferred that CBDCs are being considered as an alternative to regular currency, which can serve as a medium of exchange and store of value, and has been argued to be a new form of 'central bank money'.[50] However, it can also be argued that the characterisation of CBDCs is dependent on end-use. In a situation where it is used for speculative investment or to make profits, CBDCs could be classified as assets, but where they are used as a medium of exchange to purchase goods and services – they would be currency.

As mentioned above, in case of ICOs, 'tokens' are issued to investors in exchange for their investments. Essentially, the idea is for the investor to support a future project with his/her investment.[51] While investing in an ICO, investors are hopeful for the ultimate success of the project, so that their tokens will soar in value and they can trade it and make a profit on their initial investment. Thus, it is quite clear that the concept behind an ICO 'token' is in line with traditional securities; it takes the form of a regular investment on which one hopes to get returns, rather than a 'currency'. Accordingly, ICO tokens would be digital asset securities.[52]

III. States' approaches to CBDCs

Countries across the world are dabbling in CBDCs. In this section we will examine the position of various countries regarding CBDCs and whether they are developing their own digital currency.

In Iran, the government is developing a national cryptocurrency that is backed by the rial (the local fiat unit in Iran).[53] It will be controlled by the Central Bank of Iran and will not be capable of being mined as it will be built on a private blockchain. It is currently in its pilot phase and has not received the approval of the Central Bank of Iran yet.

In Russia, the government has been struggling to finalise a legislation that will regulate cryptocurrencies. Simultaneously, there have been several rumours circulating, that Russia will be developing its own digital currency known as the 'cryptoRuble'.[54] It will mirror the fiat ruble and

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48 *Digital Currencies*, BANK OF ENG., available *at* https://www.bankofengland.co.uk/research/digital-currencies.

49 Tommaso Mancini Griffoli et al., *Casting Light on Central Bank Digital Currencies*, IMF Doc. SDN/18/08 (Nov. 2018).

50 Benoît Coeurè & Jacqueline Loh, *Central bank digital currencies*, BANK OF INT'L SETTLEMENTS 3 (March 2018), *available at* https://www.bis.org/cpmi/publ/d174.pdf.

51 Mathieu Chanson et al., *Initial Coin Offerings (ICOs): An Introduction to the Novel Funding Mechanism Based on Blockchain Technology*, EMERGENT RESEARCH F. (2018) *available at* https://www.researchgate.net/publication/326345056_Initial_Coin_Offerings_ICOs_An_Introduction_to_the_Novel_Funding_Mechanism_Based_on_Blockchain_Technology.

52 Jay Clayton, *Statement on Cryptocurrencies and Initial Coin Offerings*, U.S. SECURITIES EXCHANGE COMMISSION (Dec. 11, 2017) *available at* https://www.sec.gov/news/public-statement/statement-clayton-2017-12-11.

53 Maziar Motamedi, *Iran inches closer to unveiling state-backed cryptocurrency*, AL JAZEERA (Jan. 27, 2019), *available at* https://www.aljazeera.com/news/2019/01/iran-inches-closer-unveiling-state-backed-cryptocurrency-190127060320571.html.

54 Ricardo Esteves, *Is Russia on Its Way to Adopting Its Own State-Backed CryptoRuble?*, NEWS BTC (Nov. 8, 2018), *available at* https://www.newsbtc.com/2018/11/08/russian-legislators-discuss-issuance-of-state-backed-cryptoruble/; Max Yakubowski, *State Duma Chairman: Russian Stablecoin Would Be Equivalent to Fiat Ruble in 'Digital Space'*,

one ruble will be exchangeable for one cryptoRuble. Essentially, it will be a State-backed cryptocurrency pegged to the Russian ruble and regulated by the Russian central bank. However, these rumours remain unconfirmed.

The Central Bank of Norway, Norges Bank, is considering introducing its own CBDC.[55] Some of the arguments made in favour of this proposition are that the introduction of CBDC would help create dedicated payment solutions and that it would help the central bank provide credit to banks.[56] However, the bank is still contemplating whether CBDC is desirable for ensuring a robust payment system and confidence in the monetary system.[57]

In Sweden, the Riksbank has analysed whether the Swedish kronor needs to be made available in an electronic form, i.e. the e-krona. However, so far there has been no decision on this aspect.[58] The report released by the bank recognises that the State must have a role in the payment market, and given that the use of cash continues to decline, it is desirable for the State to participate in the payment market in order to provide an alternative to the concentrated private payment market. Not doing so may lead to a less stable payment system.[59] Cross-agency dialogue and initiation of a pilot program has been recommended by the Riskbank.[60]

Switzerland is also considering launching 'e-franc', and in pursuance of this, the government has requested a report into the risks and opportunities presented by this proposal.[61] China is also currently considering whether it should issue CBDC.[62] The People's Bank of China has put out an article discussing whether such issuance is necessary. However, no concrete decision has yet been taken on this front.[63]

One of the only countries that has launched its own cryptocurrency is Venezuela. The cryprocurrency is called 'Petro', and, unlike other States who are looking at tying the currency to their own fiat currency, Venezuela has backed the digital currency with oil.[64] What this means is that the price of the Petro will change with fluctuations in oil prices and not in the local currency; the price of one barrel of oil will be the price of one Petro. This serves as an incentive to investors because oil is relatively more reliable than the local Venezuelan currency, Bolivar,

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COINTELEGRAPH (Nov. 8, 2018), *available at* https://cointelegraph.com/news/state-duma-chairman-russian-stablecoin-would-be-equivalent-to-fiat-ruble-in-digital-space.

55 *Central bank digital currencies*, NORGES BANK PAPERS (2018), *available at* https://static.norges-bank.no/contentassets/166efadb3d73419c8c50f9471be26402/nbpapers-1-2018-centralbankdigitalcurrencies.pdf?v=05/18/2018121950&ft=.pdf .

56 *Id.*

57 *Id.*

58 *E-krona*, SVERIGES RIKSBANK, *available at* https://www.riksbank.se/en-gb/payments--cash/e-krona/.

59 *The Riksbank's e-krona project, Report 2*, SVERIGES RIKSBANK (Oct. 2018), *available at* https://www.riksbank.se/globalassets/media/rapporter/e-krona/2018/the-riksbanks-e-krona-project-report-2.pdf.

60 *Id.*

61 *Switzerland seeks study of state-backed 'e-franc' cryptocurrency*, REUTERS (May 17, 2018), *available at* https://www.reuters.com/article/swiss-efranc/switzerland-seeks-study-of-state-backed-e-franc-cryptocurrency-idUSL5N1SO3BU.

62 *Is China about to launch its own cryptocurrency?*, WORLD ECON. F. (Oct. 15, 2018), *available at* https://www.weforum.org/agenda/2018/10/is-china-about-to-launch-its-own-cryptocurrency/.

63 *Id.*

64 *What is Venezuela's new petro cryptocurrency?,* AL JAZEERA (Mar. 23, 2018), *available at* https://www.aljazeera.com/news/2018/02/venezuela-petro-cryptocurrency-180219065112440.html.

which has deteriorated over the years.[65] The introduction of the Petro was intended to attract foreign investors to the country and capital inflows.[66]

Recently, following Venezuela, Saudi Arabia and United Arab Emirates also launched their own joint cryptocurrency.[67] The cryptocurrency will only be available to banks in its initial stage and it has not yet been disclosed whether the same is backed by a commodity, the local currency or is free floating.

Thus, as can be seen, several countries are either developing or considering developing their own CBDCs. However, a caveat that must be noted here is that due to the absence of CBDCs in public use, it is unclear how the public will react to them and how they will function.

IV. Understanding the meaning of 'Investment'

Whether cryptocurrency constitutes an investment or not is tied to how 'investment' is construed. Arbitral jurisprudence is replete with cases fine-tuning the definition of the term. Broadly, however, there is no universal definition for it – the meaning of 'investment' varies from agreement to agreement. While signing BITs, parties enjoy the flexibility of deciding the types of activities or processes that would be protected under their agreement, and define the terms accordingly. Article 25(1) of the ICSID Convention limits the jurisdiction of the ICSID to legal disputes between a Contracting State and a national of another Contracting State which arise directly out of an 'investment'.[68] Over the years, tribunals have developed a test known as the 'double-barrel' or 'double-keyhole' approach to examine whether the tribunal has jurisdiction in a particular dispute. *First*, it must be seen whether the dispute is related to an 'investment' arising from the applicable treaty between the parties. *Second*, the tribunal is required to assess whether the dispute arises out of an investment under Article 25 of the ICSID Convention.[69]

A. Under the ICSID Convention

Article 25 of the Convention provides that the jurisdiction of the ICSID shall extend to disputes arising directly out of investments between a Contracting State and a national of another Contracting State.[70] Thus, the existence of an investment is a necessary pre-condition to bringing a claim against a Contracting State before the ICSID. However, the Convention does not define or describe such 'investments'. Over the years, arbitral tribunals have tried to fill this gap in the Convention by creating tests delineating the scope of the term. The most famous and most cited

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65 Sofia Barbarani, *Venezuela's currency is so devalued it no longer fits in ordinary wallets,* WASH. POST (Nov. 27, 2016), *available at* https://www.washingtonpost.com/news/worldviews/wp/2016/11/27/venezuelas-currency-is-so-devalued-it-no-longer-fits-in-ordinary-wallets/?noredirect=on&utm_term=.6081a8ec8f67; Steve Hanke, *Venezuela's Hyperinflation Hits 80,000% Per Year in 2018*, FORBES (Jan. 1, 2019), *available at* https://www.forbes.com/sites/stevehanke/2019/01/01/venezuelas-hyperinflation-hits-80000-per-year-in-2018/#4c73d7264572.

66 *Report of the team to examine the issue of Central Bank Digital Currencies*, BANK OF ISR. 14 (Nov. 2018), *available at* https://www.boi.org.il/en/NewsAndPublications/PressReleases/Documents/Digital%20currency.pdf.

67 Darryn Pollock, *Analysis of UAE and Saudi Arabia's Government Cross-Border Payments Cryptocurrency*, CRYPTOSLATE (Feb. 5, 2019), *available at* https://cryptoslate.com/uae-saudi-arabia-launch-government-cryptocurrency-cross-border-payments/.

68 Convention on the Settlement of Investment Disputes between States and Nationals of Other States art. 25(1), Oct. 4, 1966, 575 U.N.T.S. 159 [*hereinafter* "ICSID Convention"].

69 YVES DERAINS & JOSEFA SICARD-MIRABEL, INTRODUCTION TO INVESTOR-STATE ARBITRATION 25 (2018); the satisfaction of the 'double-barrel' test only arises in case of ICSID arbitrations.

70 ICSID Convention, art. 25.

case in this regard is *Salini et al.* v. *Morocco* [hereinafter, "**Salini**"],[71] which stipulated a four-part requirement for what constitutes an 'investment':[72]

(a) A contribution of money or assets
(b) A certain duration
(c) An element of risk
(d) A contribution to the economic development of the host State.

The tribunal in *Salini* inserted an important caveat: since these factors are often interdependent, for instance, risk may depend on contribution, etc., the criteria should be considered holistically, even if the tribunal considered them individually in its decision.[73]

This test has faced some criticism in arbitral jurisprudence. Some tribunals have taken issue with the fourth requirement of contribution to the development of the host State, arguing that it is a requirement which is difficult to establish and covered under the other elements,[74] and that contribution to economic development is an expected consequence of the investment and not a pre-condition to it.[75] However, some others have defended the fourth requirement on the grounds that the ICSID exists to facilitate international investment, and consequently, contribute to the economic development of the host State, and that this has been misread in decisions such as *Quiborax* v. *Bolivia*.[76] Defenders of the fourth prong point to the preamble of the ICSID, which discusses fostering of economic development, to defend *Salini*'s inclusion of the requirement.[77] Despite its criticisms, the *Salini* test has been equally accepted and followed in arbitral jurisprudence.[78] Thus, whether or not the fourth criterion will be considered in deciding whether an activity is an 'investment' will, most likely, depend heavily on the tribunal's approach to the *Salini* test.

B. Ever-Evolving Definitions under BITs

i. Types of Definitions

Authors generally opine that the definition of investment under various treaties has significantly broadened with time.[79] Investment treaties such as BITs, Free Trade Agreements ["**FTAs**"], etc.,

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71 Salini Costruttori S.p.A. and Italstrade S.p.A. v. Kingdom of Morocco, ICSID Case No. ARB/00/4, Decision on Jurisdiction, ¶52 (Jul. 23, 2001) [*hereinafter* "Salini"].

72 *Id.* ¶ 52; Alex Grabowski, *The Definition of Investment under the ICSID Convention: A Defense of Salini*, 15(1) CHI. J. INT'L L. 287 (2014) [*hereinafter* "Alex Grabowski"].

73 *Id.*

74 L.E.S.I. S.p.A. and ASTALDI S.p.A. v. République Algérienne Démocratique et Populaire, ICSID Case No. ARB/05/3, Award, ¶ 72 (Jul. 12 2006).

75 Víctor Pey Casado and President Allende Foundation v. Republic of Chile, ICSID Case No. ARB/98/2, Award, ¶ 232 (May 8, 2008).

76 Quiborax S.A., Non Metallic Minerals S.A. and Allan Fosk Kaplún v. Plurinational State of Bolivia, ICSID Case No. ARB/06/2, Decision on Jurisdiction (Sept. 27, 2012); Alex Grabowski, *supra* note 72, at 308.

77 Alex Grabowski, *supra* note 72.

78 Jan de Nul N.V. and Dredging International N.V. v. Arab Republic of Egypt, ICSID Case No. ARB/04/13, Decision on Jurisdiction (June 16, 2006); Saipem S.p.A v. The People's Republic of Bangladesh, ICSID Case No. ARB/05/07, Decision on Jurisdiction and Recommendation on Provisional Measures (Mar. 21, 2007); Ioannis Kardassopoulos v. Georgia, ICSID Case No ARB/05/18, Decision on Jurisdiction (July 6, 2007); Bayindir Insaat Turizm Ticaret Ve Sanayi AS v. Islamic Republic of Pakistan, ICSID Case No. ARB/03/29, Decision on Jurisdiction (Nov. 14, 2005).

79 Noah Rubins, *The Notion of 'Investment' in International Investment Arbitration*, *in* 19 ARBITRATING FOREIGN INVESTMENT DISPUTES: PROCEDURAL AND SUBSTANTIVE LEGAL ASPECTS, STUDIES IN TRANSNATIONAL ECONOMIC LAW 292 (Norbert Horn and Stefan Michael Kroll eds.) [*hereinafter* "Noah Rubins"]; M. SORNARAJAH,

generally contain clauses which describe the forms that an activity or an asset must take in order to fall within the confines of the protection offered under that instrument.[80] These clauses can be characterised in various forms, ranging from illustrative list forms, which offer broad coverage by illustrating the type of subject-matter they protect. An example of such a form would be the ASEAN Comprehensive Investment Agreement.[81] Other forms include exhaustive lists, of which the North American Free Trade Agreement ["**NAFTA**"] is an example – it sets out an exhaustive list of activities and investments which are covered under it.[82] Investment treaties give States the flexibility to choose the type of activities that will be afforded protection, and also provide an opportunity to align such protections with State policy. For example, the Model BIT released by India in 2016[83] contained a very long definition of investment with several caveats appended to it. For one, only an 'enterprise' can constitute investment. Further, India also included within the definition, a list of assets which would *not* constitute investment.

ii. Activities and assets generally protected under 'investment'

Initially, protection was only limited to tangible or physical property of the investor. However, with the recognition of concession agreements, licensing agreements, intellectual property rights, etc., this trend soon changed.[84] An 'asset based definition' generally protects moveable and immoveable property, as well as property rights, shares, stocks, debentures, intellectual property rights, licenses, etc.[85] Interestingly, the US-Singapore FTA also protects innovative financial instruments such as futures, options and derivatives under its definition of investment.[86] The NAFTA includes within its definition "*other property, tangible or intangible, acquired in the expectation or used for the purpose of economic benefit or other business purposes*".[87] Thus, protected investments can be diverse and investment treaties are increasingly reflective of how the range of the term 'investment' is becoming wider.[88]

C. The Legality Requirement

Ordinarily, investment treaties limit the scope of their application by including a legality requirement, or an 'in accordance with host State law' clause. The idea is to protect only those

THE INTERNATIONAL LAW ON FOREIGN INVESTMENT 10 (3rd ed. 2010) [*hereinafter* "SORNARAJAH"]; ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT, INTERNATIONAL INVESTMENT LAW: UNDERSTANDING CONCEPTS AND TRACKING INNOVATIONS 48 (2008).

80 *Id.* at 10; Noah Rubins, *supra* note 79, at 292-94 (Norbert Horn & Stefan Michael Kroll eds., 2004).

81 Ass'n of Southeast Asian Nations [ASEAN] Comprehensive Investment Agreement art. 4(c), *available at* https://investmentpolicyhub.unctad.org/Download/TreatyFile/3095. Art. 4(c) of the Agreement defines investment as 'every kind of asset' and follows it up with an illustrative list.

82 North American Free Trade Agreement, Can.-Mex.-U.S., art. 1139, Dec. 17, 1992, 32 I.L.M. 289 (1993). Art. 1139 provides an exhaustive definition of investment for the purposes of the NATFA.

83 Model Text for the Indian Bilateral Investment Treaty 2016, art 1.4.

84 SORNARAJAH, *supra* note 79.

85 *See* Model Text for the Indian Bilateral Investment Treaty 2016, art 1.4; Agreement between the Czech Republic and the Republic of Hungary for the Promotion and Reciprocal Protection of Investment BIT, Czech-Hung., art. 1.1, Jan. 14, 1993.

86 United States-Singapore Free Trade Agreement, U.S.-Sing., art. 15.1.13, May 6, 2003, 42 I.L.M. 1026 [*hereinafter* "US-Singapore FTA"].

87 North American Free Trade Agreement, Can.-Mex.-U.S., art. 1139(g), Dec. 17, 1992, 32 I.L.M. 289 (1993).

88 *See, e.g.,* US Model Bilateral Investment Treaty, art. 1 (2012). This definition is extremely wide, and includes within its ambit "every asset that an investor owns or controls, directly or indirectly, that has the characteristics of an investment, including such characteristics as the commitment of capital or other resources, the expectation of gain or profit, or the assumption of risk."

investments which are made in compliance with the host State law.[89] This is the requirement which will be the most significant barrier to cryptocurrency being protected as investment, seeing as a number of countries have banned or not recognised cryptocurrency.[90]

V. Cryptocurrencies: Investment or Not?

At the outset, it is worth noting that cryptocurrencies in their traditional form (for example Bitcoin, Ether, etc.) will most likely not constitute investment. The most fundamental reason for this is that most investment treaties require the investment to be situated within the territory of the host State.[91] However, due to the decentralised nature of cryptocurrencies, they are not linked to any one State, making the determination of the host State of the investment almost impossible. Cryptocurrency is traded, stored, used, and accessed online, and the internet can be accessed from anywhere in the world. This makes it difficult for the owner of the cryptocurrency to bring a claim against a particular State for any loss they may incur on the investment. Moreover, it could have been possible to identify the host State if cryptocurrencies were issued by a particular company or organisation, whose registered office could be used to determine the territory in which the investment is situated. However, this is not the case with cryptocurrency, which is usually traded between individuals.

Further, the 'wallets' which are used to store cryptocurrencies can exist both online and offline. An online wallet can be accessed from anywhere in the world, thus making it difficult to identify a host State. An offline wallet too, can be downloaded onto any computer in the world, causing the same problem.

Therefore, it may not be possible to categorise traditional forms of cryptocurrency as 'investments' due to the lack of a host State in whose territory they may be situated. However, it may be possible to include CBDCs and privately issued cryptocurrencies within the scope of 'investment', as discussed below.

A. Salini Test

Contribution of money or assets: This is a straightforward requirement of the *Salini* test and simply put, requires a commitment of resources.[92] This requirement is satisfied, not only by contribution in monetary terms but also in kind, for example, by supplying equipment, personnel etc.[93] In order to purchase CBDCs, an investor will naturally either spend their money or trade them in exchange for other assets. The same goes for cryptocurrencies acquired through ICOs as they also require payment.

It should be noted here that cryptocurrencies are often traded with each other and most companies issuing ICOs accept payment in terms of cryptocurrencies such as Bitcoin. As even

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89 August Reinisch, *How to Distinguish 'In Accordance With Host State Law' Clauses from Similar International Investment Agreement Provisions?*, 7(1) IND. J. ARB. L. 70 (2018).

90 *Morocco's Central Bank: 'Bitcoin is Not a Currency'*, MOROCCO WORLD NEWS (Dec. 21, 2017), *available at* https://www.moroccoworldnews.com/2017/12/236929/morocco-central-bank-bitcoin-currency-cryptocurrency/; For Egypt, Vietnam, and Algeria, *see Regulation of Cryptocurrency around the World*, L. LIBRARY OF CONG. (June 2018), *available at* https://www.loc.gov/law/help/cryptocurrency/cryptocurrency-world-survey.pdf.

91 U.S. Model Bilateral Investment Treaty, 2012, art.1; Germany Model Treaty, 2008, art. 1; India Model Bilateral Investment Treaty, 2016, art. 1.4.

92 Quiborax S.A. et al. v. Plurinational State of Bolivia, ICSID Case No. ARB/06/2, Decision on Jurisdiction, ¶ 219 (Sept. 27, 2012).

93 Salini, *supra* note 71, ¶ 53.

they constitute digital assets,[94] purchasing CBDCs or ICO tokens in exchange for other cryptocurrencies would also constitute contribution of money or assets.

Duration: The *Salini* tribunal held that an investment must be made for a duration of two to five years, in order to classify as an investment. However, it must be taken into account that there, the tribunal was concerned with a highway construction contract.[95] Moreover, it has been argued that the 'duration' aspect of the test should be considered from an industry specific angle, rather than rigidly requiring all types of investments to adhere to a specific duration.[96]

In a transaction involving an asset like digital currency, a shorter duration should not disbar an investment dispute from being heard. Drawing an analogy to shareholder claims in ICSID arbitration in the pre-*Salini* era, tribunals have held that individual shareholders are well within their rights to approach ICSID arbitration.[97] There is no specific duration for which an individual may hold shares[98] – the same is the case with digital currency as well, which is why investment claims arising from State interference with digital currency should not be disbarred.

Generally, individuals having the nationality of one of the Contracting Parties, who invest in companies or other legal entities in the territory of the other, are entitled to protection of the ICSID Convention as per Article 25. Purchasing cryptocurrency issued by a company during an ICO is akin to investing in the company and while the two may not be the exact same, the issued token is comparable to a share. Further, when an investor purchases these assets with the intention to invest his/her money, s/he is expecting to make profit. Consequently, in the authors' opinion, it does not seem reasonable to require a rigid duration requirement for investments in CBDCs and cryptocurrencies.

Risk: In terms of risk, a distinction needs to be drawn between ordinary commercial risk and 'operational' or 'investment risk' which would be relevant for the purposes of determining investment. An investment risk envisages a situation where the investor cannot be sure of his investment and may not be able to predict the outcome of the transaction.[99] Investment risks include the risk of interference by the government; they would be risks inherent in the surrounding of the investment operation.[100] Risk, in part, is a function of duration, and expectation of profit.[101] Considering that CBDCs are issued by State governments, and are

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94 *See supra* Part II.C.

95 Salini, *supra* note 71, ¶ 54.

96 Helena Jung Engfeldt, *Should ICSID Go Gangnam Style in Light of Non Traditional Foreign Investments Including Those Spurred on by Social Media? Applying an Industry Specific Lens to the Salini Test to Determine Article 25 Jurisdiction*, 32 BERKELEY J. INT'L L. 59 (2014).

97 Emilio Agustín Maffezini v. The Kingdom of Spain, ICSID Case No. ARB/97/7, Decision of the Tribunal on Objections to Jurisdiction, ¶ 70 (Jan. 25, 2000); American Manufacturing and Trading Inc. v. Republic of Zaire, ICSID Case No. ARB/93/1, Award, ¶ 5.15 (Feb. 5, 1997); *see also* Asian Agricultural Products Ltd. v. Republic of Sri Lanka, ICSID Case No. ARB/87/3, Final Award (June 15, 1990) [*hereinafter* "Asian Agricultural Products"].

98 Vladislav Kim and others v. Republic of Uzbekistan, ICSID Case No. ARB/13/6, Decision on Jurisdiction, ¶ 342 (Mar. 8, 2017) ["The Tribunal holds that there is nothing in the BIT, nor in the ICSID Convention, to provide a foundation for Respondent's argument that investments made with some measure of intent to dispose, or possibly to dispose, of them in the short, rather than long, term do not gain the protection of the BIT as "investments"].

99 Romak S.A. (Switzerland) v. The Republic of Uzbekistan, Award, Case No. AA280 (Perm. Ct. Arb. Nov. 26, 2009).

100 Poštová banka, a.s. and ISTROKAPITAL SE v. Hellenic Republic, ICSID Case No. ARB/13/8, Award (Apr. 9, 2015).

101 Saipem S.p.A v. The People's Republic of Bangladesh, ICSID Case No ARB/05/07, Decision on Jurisdiction and Recommendation on Provisional Measures (Mar. 21, 2007).

regulated and controlled by them, there is always a possibility of State interference with the rights of CBDC investors – for example, the government may decide to regulate foreign CBDC investors differently from local investors, posing a threat to the success of the foreign investors' ventures. Further, ordinary commercial risks are ever-present, such as the risk of currency fluctuation, hacking, technological glitches, theft, etc.

Similarly, in the case of cryptocurrencies acquired through ICOs, there is always a risk of the project or the product failing, in which case the token will lose all value. There is also the risk of government policy changing from allowing ICOs and cryptocurrencies (or not expressly banning them) to prohibiting them completely. An example of this can be seen in the policy of the Reserve Bank of India.[102]

Therefore, the 'risk' element of the *Salini* test is also fulfilled for both CBDCs and ICO acquired cryptocurrencies.

Contribution to the economic development of the host State: This requirement is perhaps one of the most controversial elements of the Salini test. As mentioned in Part IV.A, it has been heavily criticised, with several tribunals either not considering it mandatory or completely disregarding it.[103] At the outset, it must be noted that while the other three requirements are considered important in the context of investments in general, the requirement of contribution to the economic development of the host State only arises when the ICSID is concerned. Thus, as CBDCs and ICO tokens satisfy the first three requirements, they may constitute 'investment', even though they do not contribute economically, provided the arbitration is not under the ICSID.

In *Salini*, as well as in subsequent decisions, tribunals have not clearly defined what constitutes 'economic development'. Generally, this concept has been considered as extremely broad.[104] Further, it is not necessary that the investment is sizeable or successful.[105] In fact, in the *Malaysian Historical Salvors* case, the tribunal went as far as to hold that "*any contract which enhances the Gross Domestic Product of an economy by any amount, however small, would qualify as an 'investment*".[106]

Purchase of CBDCs will result in transfer of resources from the State of the investor to the host State and can lead to acquisition of foreign exchange by the host State. An increase in foreign exchange is beneficial for a State's economy and can contribute to its economic development.

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[102] Reserve Bank of India, *Prohibition on dealing in Virtual Currencies (VCs),* Notification No. RBI/2017-18/154 (Apr. 6, 2018), *available at* https://rbi.org.in/Scripts/NotificationUser.aspx?Id=11243.

[103] Quiborax S.A., Non Metallic Minerals S.A. and Allan Fosk Kaplún v. Plurinational State of Bolivia, ICSID Case No. ARB/06/2, Decision on Jurisdiction (Sept. 27, 2012); Phoenix Action Ltd v. The Czech Republic, ICSID Case No. ARB/06/5, Award (Apr. 15, 2009)*;* Electrabel S.A. v. The Republic of Hungary ICSID Case No. ARB/07/19, Decision on Jurisdiction, Applicable Law and Liability (Nov. 30, 2012); L.E.S.I. S.p.A and ASTALDI S.p.A. v. Algeria, ICSID Case No. ARB/05/3, Decision on Jurisdiction (July 12, 2006); KT Asia Investment Group B.V. v. Republic of Kazakhstan, ICSID Case No. ARB/09/8, Award (Oct. 17, 2013).

[104] Mr. Patrick Mitchell v. Democratic Republic of the Congo, ICSID Case No. ARB/99/7, Extracts of Award (Feb. 09, 2004).

[105] *Id.*

[106] Malaysian Historical Salvors, SDN, BHD v. The Government of Malaysia, ICSID Case No. ARB/05/10, Award on Jurisdiction, ¶ 123 (May 17, 2007).

Further, issuing CBDCs can raise gross domestic product.[107] Thus, it can be argued that by purchasing CBDCs, an investor is contributing to the economic development of the host State.

It has been argued that the jurisprudence of investment by tribunals indicates that satisfaction of the economic development criterion, requires that an investment should benefit the public interest and result in transfer of technological knowledge or 'know-how' from the investor to the host state.[108] Purchase of CBDCs can benefit public interest, but it does not result in transfer of technical know-how. However, given that even promissory notes have constituted investment,[109] these requirements cannot be considered mandatory.[110]

In the context of ICOs, an indirect economic contribution can be found as the inflow of funds to domestic companies of the host State will encourage projects and products. These will in turn positively impact the GDP of the State. The facts and circumstances surrounding the project and investment will play a substantial role when determining satisfaction of this criterion.

In any case, even if the investor is not necessarily contributing to the economic development of the host State, purchase of CBDCs and ICO tokens can still constitute investment, especially as even ICSID tribunals have not *always* required the same.

B. BITs

Typically, investment under BITs has been defined to mean *any kind of asset* owned by an investor of one Contracting State in the territory of the other Contracting State.[111] This definition is accompanied by a list of assets that are included within the purview of investment. However, more often than not, this list is not exhaustive and has the potential to include other types of assets.[112]

As discussed above, in reference to CBDCs, they can either take the form of currencies or digital assets. Their exact classification will depend upon the specifications as well as the terms and conditions decided by the State issuing the CBDC.

If CBDCs were to be classified as 'digital assets', we could find support for their protection as investments. First, we can see from the broadening of the definition of 'investment' in BITs that States have taken into account innovations in relation to financial instruments.[113] It can be argued that the creation and investment in CBDCs would also ideally be covered under BITs. Further, though it has been recognised that in the present regulatory environment it may be difficult to fit

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107 *Central Bank Digital Currencies*, MONDATO (July 23, 2018), *available at* https://blog.mondato.com/central-bank-digital-currencies/.

108 Omar E. García-Bolívar, *Defining an ICSID Investment: Why Economic Development Should be the Core Element*, INV. TREATY NEWS (Apr. 13, 2012), *available at* https://www.iisd.org/itn/2012/04/13/defining-an-icsid-investment-why-economic-development-should-be-the-core-element/#_ftn19.

109 Fedax N.V. v. The Republic of Venezuela, ICSID Case No. ARB/96/3, Decision of the Tribunal on Objections to Jurisdiction (July 11, 1997).

110 Deutsche Bank AG v. Democratic Socialist Republic of Sri Lanka, ICSID Case No. ARB/09/2, Award (Oct. 31, 2012).

111 Agreement between the Government of the Republic of Singapore and the Government of the Russian Federation on the Promotion and Reciprocal Protection of Investments, Sing.–Russ., art. 1.2, Sept. 27, 2010; The Republic of Iran Model Bilateral Investment Treaty, art. 1.1; United States Model Bilateral Investment Treaty, art. 1, 2012.

112 *Id.*

113 US-Singapore FTA, *supra* note 86, art. 15.1.13.

digital assets into the categories listed by BITs,[114] digital assets should nonetheless be covered by BITs provided they serve a commercial purpose and there exists a territorial link to the host State.[115] CBDCs are based entirely on technology and traded through the internet, which makes them completely digital in nature. They should accordingly, be protected as investments.

Admittedly, a CBDC does exhibit the characteristics of currency due to the fact that it is backed by the issuing State and consequently, can serve as legal tender. However, even if they were to be classified as currency, we could find support for their protection since investment has been defined in certain BITs as including 'money and/or receivables'.[116] Further, in the opinion of the authors, till the day comes that CBDCs successfully replace (or at the very least become equally popular as) cash, the motive behind a person buying them would be for investment. In fact, several of the countries that are currently looking at CBDCs, do think of them as a potential mechanism to attract foreign investment. In light of this, it would be incorrect to not accord them protection under BITs. They are a form of digital asset and should be protected as such.

As discussed above, tokens that are issued at the time of ICOs are a type of investment through which the investor hopes to achieve a profit. In case of CBDCs, the lingering question was whether they would be characterised as 'currency' or 'asset'. However, in case of ICO tokens, there is no uncertainty that they exhibit the traits of securities and should be considered digital asset securities.[117] We argue that digital assets are included in 'investment' and therefore, an investor who purchases tokens from an ICO conducted in the territory of the host State would be entitled to protection from that State in case his/her investment is jeopardised. Moreover, securities are also considered 'investments' under BITs.[118]

VI. Conclusion

Cryptocurrencies are here, and they are here to stay. Whether or not they eventually replace hard cash and become common in daily use, we cannot know. However, for now, they are considered to be a lucrative investment opportunity with several investors hoping to make large gains by investing in them. In light of this, it is important that investors are assured that their investment will be protected from arbitrary actions of States. It is worth noting that one of the reasons for the omission of the definition of 'investment' was so that there could be a progressive development in international law on the topic of investment.[119] Presently, there is uncertainty in the international legal sphere regarding their validity and recognition; some States have regulated them, some have prohibited them and some have simply not taken a stance.

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[114] Ivory Mills, *Emergent Challenges in International Investment Law: Investing in ICT, in* HUMAN RIGHTS AND TECHNOLOGY, THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT (Mariateresa Garrido Villareal ed., 2017).

[115] D.A. Collins, *Applying the Full Protection and Security Standard of International Investment Law to Digital Assets,* 12 J. WORLD INV. & TRADE 225, 230 (2011).

[116] Agreement between the Government of the Republic of Korea and the Government of the Islamic Republic of Iran for the Promotion and Protection of Investments, S. Kor.-Ir., art. 1(c), Oct. 31, 1998; Agreement between the Government of the Lebanese Republic and the Government of the Islamic Republic of Iran on the Reciprocal Promotion and Protection of Investments, Leb.-Ir. art. 1(c), Oct. 28, 1997.

[117] *See supra* Part II.C.

[118] Asian Agricultural Products, *supra* note 97; *see also* American Manufacturing and Trading Inc. v. Republic of Zaire, ICSID Case No. ARB/93/1, Award, ¶ 5.15 (Feb. 5, 1997); Vladislav Kim and others v. Republic of Uzbekistan, ICSID Case No. ARB/13/6, Decision on Jurisdiction, ¶ 323-345 (Mar. 8, 2017).

[119] Mihaly International Corporation v. Democratic Socialist Republic of Sri Lanka, ICSID Case No. ARB/00/2, Award, ¶ 33 (Mar. 15, 2002).

In such a situation of uncertainty, the authors believe that classifying them as digital assets, and consequently considering them as investments, will ensure their protection. It can be argued that cryptocurrencies do not satisfy all the criteria of the *Salini* test, however, as several tribunals and authors have recognised, the test should not be applied strictly.[120] It is important to take into consideration technological advancements and new developments taking place across the globe when judging what an 'investment' is. In fact, generally, BITs use an expansive definition of investment wherein they provide an indicative but not conclusive list of what constitutes investment. Further, States have been seen as trying to be sensitive to developments when drafting their BITs. For instance the U.S. - Singapore FTA and the NAFTA, discussed above, have accommodated innovations in the field of finance, and broadened the definition of investment to include a plethora of activities and assets, respectively. Further, in the US, the 'Virtual Currency Consumer Protection Act of 2018' has been introduced in the House of Representatives and referred to the Committee on Financial Services.[121] The aim of this bill is to promote fair and transparent virtual currency markets. The US is also planning to introduce the 'Virtual Currency Market and Regulatory Competitiveness Act of 2018', to promote US competitiveness in the evolving virtual currency marketplace.[122] Both of these Bills have also been envisaged with the aim of protecting investors.[123] Therefore, it is evident from this approach that States themselves are considering persons who engage with digital currencies as 'investors' – consequently, digital currencies will be an investment from the perspective of States. There is then, no reason why they should be excluded from the ambit of 'investment'.

The average validity of a BIT is over a decade.[124] Consequently, it is highly probable that new and innovative investment products and opportunities which were not envisaged at the time of drafting the BIT enter the market after the BIT comes into force. For instance, cryptocurrencies were not the order of the day at the time when most BITs that exist today were drafted. Thus, it is essential that BITs be given the flexibility to include even such products within their ambit by allowing for a broad interpretation of the term 'investment'. This will, in turn, encourage creativity and foreign investment.

The primary intention of those buying cryptocurrencies today is to invest money with the hope of positive returns and it would be unfitting to deny them the protections accorded by BITs by not classifying cryptocurrencies as investments. Going forward, the authors recommend that CBDCs and tokens acquired through ICOs be recognised as investments and accorded the same protections that traditional investments receive. This will also ensure that in case of disputes concerning them, the relevant arbitral tribunal under the BIT will have jurisdiction.

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120 Biwater Gauff (Tanzania) Ltd. v. United Republic of Tanzania, ICSID Case No. ARB/05/22, Award, ¶ 314 (July 24, 2008); *see* United Nations Conference on Trade and Development, Scope and Definition, *UNCTAD Series on Issues in International Investment Agreements II*, at 61, UN Doc. UNCTAD/DIAE/IA/2010/2 (2011).

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