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Cryptocurrencies as protected investments under bilateral investment treaties

Is there a BIT of coin Protection?

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List of Abbreviations

BIT	BIT- Bilateral Investment Treaty
DLT	Distributed Ledger Technology
EBA	European Banking Authority
ECB	The European Central Bank
ECT	Energy Charter Treaty
ETH	Ethereum
EU	European Union
EUR	Euro
EVM	Ethereum Virtual Machine
FCN	Friendship, Commerce and Navigation
ICO	Initial Coin Offerings
ICSID	The International Centre of Dispute Settlement
IIL	International investment law
IOT	Internet of Things
IPO	Initial Public Offering
ISDS	Investor- State Dispute Settlement
MIT	Multilateral Investment treaty
NAFTA	North American Free Trade Agreement
OECD	Organization for Economic Co-operation and Development
P2P	Peer to Peer
SEC	U.S Securities and Exchange Commission
UN	United Nations
UNICTRAL	United Nations Convention on International Trade law
USD	United States Dollar
VCLT	Vienna Convention on the Law of Treaties

1. Introduction

The evolution of the internet has provided foundational practicability in establishing a unified international community, it does not only connect users to each other through data platforms. It also allows for the visualization of digitizing the physical world.[1] This technology paradigm is known as the 'internet of things' (IOT*)*. IOT is redefining our lifestyle by infusing an ecosystem that enables computing physical objects by extracting data from the internet. This is seen through transferring data to smart watches and smart homes.[2]

Similarly, the development of 'blockchain technology' evidences the unstoppable renaissance of the internet's innovation. This technology enabled the creation of the first widely known cryptocurrency 'Bitcoin', and fashioned wary grounds on the future of international financial infrastructure. Thereafter, burdening nations with complicated tasks in identifying and regulating cryptocurrencies. Hence, diluting a split in approaches. In terms of regulation, Countries have endeavored to extreme ends of nation-wide bans on cryptocurrencies, to a more positive stance in legalizing the use of cryptocurrencies.[3]

On an international scale, cryptocurrencies are yet to be addressed. The debate on providing a unitary solution to the status of cryptocurrencies, is no-where close to being concluded. In a state of standstill, the international community currently struggles towards reaching a unified adoption of crypto currencies.[4] The classification of cryptocurrencies, whether being, commodity, money or 'something else' remains unknown.[5] With this on-going phase of confusion, the international reach of cryptocurrencies is widening. Many retail and institutional investors alike are more invested into cryptos than ever before.

[1]R. Buya & Amir Dastjerdi: '*Internet of Things: Principles and Paradigms*' (Todd Green, Cambridge, 2016) P. 3
[2] Ibid, PP. 4-5
[3] D. Teo & A. Chiang: '*The Bitcoin dystopia*' (Notion Press, Chennai, 2019) P. 9.
[4] Ibid, P. 9.
[5] G. Guidici, A. Milne & D. Vingradov: '*Cryptocurrencies: Market Analysis and Perspectives*'. J IND ECON, (47), P. 1.

Despite the lack of large foreign investments of cryptocurrencies, its relevance and growth are precedented to continue globally.[6] Therefore, it is important to administer an examination through the lens of international investment law.

International investment law is founded on international treaties, agreements, and custom.[7]It regulates the relationship between the host state and foreign investors. By virtue of these regulations, investors are granted protections against potential abuses committed by host states and allows investors access to dispute resolution in case an infringement occurs.[8] A foreign investor's ability to initiate legal proceedings is crucial to adhere to the protection of a foreign investment and ensure a harmonious stimulation of foreign investments in host states.

However, in securing this protection, an investment must first qualify as an international investment as defined by the contracting states under a BIT, and the relevant dispute resolution organs.[9] As there are no formal international categorizations of cryptocurrencies, and no pending disputes under international arbitration. It is of particular interest to investigate, whether investors can invoke protection under current BITs. As BITs form one of the most influential international instruments in relation to investment protection, and as of the time of writing, there are more than 2800 BITs concluded.[10]

1.1Statement of Problem and Purpose

Since the birth of the first cryptocurrency in 2009, a movement of uncertainty has emerged in defining a cryptocurrency. Many questions have been asked revolving around the classification of a cryptocurrency, such as whether a cryptocurrency is a monetary instrument? A commodity? or a separate asset class? Has continuously been seated at the

[6] M. Viglioti & H. Jones *'The Executive Guide to Blockchain: Using Smart Contract and Digital Currencies in Your Business'* (Springer Nature Switzerland AG, Cham), P. 15.
[7] R. Dolzer and C. Schruer *'Principles of International Investment Law'* (OUP, 2nd Ed., 2012), P. 1- 7.
[8] Ibid.
[9] R. Dolzer and C. Schruer (n.7).
[10] UNCTAD 'International Investment Agreements Navigator' <https://investmentpolicy.unctad.org/international-investment-agreements accessed 27 April 2021>.

center of the debate.[11] Although, some nations have strayed away from defining a cryptocurrency as a monetary instrument under their domestic legal orders. Some nations have classified a cryptocurrency as intangible property, and other nations have banned the use of cryptocurrencies.[12] However, the classification and adoption of crypto currencies under an international spectrum remains on unruly grounds.[13]. With this, it is without a doubt that cryptocurrencies have presently gained a large momentum of mainstream interest and have gained attraction all over the world. According to coin desk, as of April 5 2021, the total market value for all crypto currencies have gained a sharp 2 trillion-dollar market cap.[14] Therefore, appealing to large institutions across various industries, and retail investors alike.[15] In line with this, the writer assumes that future growth of the crypto industry is most likely precedented, and an excess of foreign investments affiliated with crypto currencies are unavoidable. Thus, resulting in an increase in investor-state disputes. To establish whether foreign investors are granted protection under international investment law regarding their cryptocurrencies, the following research question must be addressed: 1. Are cryptocurrencies protected under bilateral investment treaties?

However, for the main question to be answered, the following sub-questions must be addressed in turn:

1. Are cryptocurrencies classified as money?
2. Are cryptocurrencies classified as digital assets?
3. How are cryptocurrencies regulated and classified under national law?

[11] P. Vigna & M. Casey, 'The Age of Cryptocurrency': *How Bitcoin and Global Money Are Challenging the Global Economic order*, PP. 1-6.
[12] The Law Library of Congress, *Regulation of Cryptocurrency Around the World*, The Law Library of Congress, Global Legal Research Center, Washington, 2018, P.1.
[13] The Law Library of Congress, *Regulation of cryptocurrency around the world* (n 12), PP. 7-27.
[14] M. Shen, 'Market Wrap: Bitcoin Stead Near 59k; Gains in Alts Push Marketcap to 2T' (*Coin desk website*, April 5 2021) <www.coindesk.com>, accessed 5 April 2021.
[15] J. Partridge, 'Value of Cryptocurrency Bitcoin climbs 5% to record high of 63,000 $', New York Times New York, 13 April 2021<https://www.theguardian.com/technology/2021/apr/13/bitcoincryptocurrency-value-climbs-record-high-63000-dollars-launch-coinbase-platform-nasdaq>, accessed 24 April 2021.

1.2 Methodology and Sources

The methodology that will be utilized is that of legaldogmatics. The theoretical core of legal dogmatics concerns the positive law of a particular state and aims at controlling legal decision making.[16] This approach is valid for this thesis as this methodology enables law makers a behavioral adaptation in accordance with a positive law of the state, to circumvent within a desired legal protection and sets a "systemization of valid legal norms".[17] Through the application of legal dogma, it further allows grounds of legal predictability towards the effect of certain normative behaviors.

As for public international law, the relevant rules applicable to the relationship between an investor, the investment and a host-state will be considered. It is true that international investment law is derived from the principles of public international law, it however holds special characteristics that makes it unique within itself.[18] For instance, the power granted to foreign investors through bilateral investment treaties to claim protection. Even where the contract is between two sovereign nations. This in turn, forms a relationship that is beyond the parties to the contract, it also forms a relationship between the nationals and the state.

With this said, treaties, customary international law, general principles of law and secondary sources of international law such as case law will be applied and focused throughout this research paper. In addition to an emphasis on domestic law, as it plays a formative role to the interpretation of a BIT. Investment treaties usually cite the host state's municipal law, and it is also a decisive factor in terms for a tribunal to decide jurisdiction on the dispute.[19] With regards to the afore-stated, scholarly publications are not to be excluded as it will be referred to within this research paper to aid the reasoning and findings of the author.

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[16] Z. Ziembinski, '*Polish Contributions to the Theory and Philosophy of Law*' (Eds, Rodopi, Amsterdam, 1987) P. 79.
[17] Ibid.
[18] J. A. Maupin, Public and Private in International Investment Law: '*An Integrated Systems Approach'Viriginia Journal of International law*, Vol. (54:2), (2013), P. 373.
[19] P. Dumberry, *Are BITs representing the "New" Customary International Investment Law*, Vol. (28:4), 5/10/2010, PP. 678-679.

1.3 Delimitations

As mentioned above, this study will address whether cryptocurrencies are protected under bilateral investment treaties. This research paper will only include direct acyclic graph as an alternative technology to blockchain as an illustration. Besides this illustration, cryptocurrencies that are based on principle technologies such as artificial intelligence, or any other alternative technologies that are not based on blockchain will not be addressed. The concentration will therefore be on cryptocurrencies that operate on blockchain. With this as it is difficult to address all 4000 cryptocurrencies in existence[20], this study will use Ether and Bitcoin as prime examples in characterizing cryptocurrencies.

In the context of domestic law, as it is not possible to conduct a study that includes all nations, this research paper will limit itself to a *general overview* of the legal status of cryptocurrencies under national orders. However, while providing examples of specific countries that accept, restrict and ban the uses of cryptocurrencies.

Even though the role of dispute resolution will be generally addressed, and ICSID case law will be utilized to aid our findings. The procedural aspects of arbitration will be of limited context within this research paper, it will only be addressed in constituting an investment without providing a detailed outlook on the access to arbitration.

1.4 Terminology and Definition

Asymmetric cryptography: Asymmetric cryptography is the process that generates the encryption of data by means of the public key and allows the public key

[20] See, L. Conway, '*Coinbase Review: An on Ramp to Crypto Investing and* understanding', (Investopedia, March 15, 2021) <https://www.investopedia.com/tech/coinbase-what-it-and-how-do-you-use-it/>.

to correspond with the private key (a key that decrypts data).[21] A message or code can only be decrypted by the public key.[22]

Crypto assets: Crypto assets are assets that mainly depend on cryptography and distributed ledger technology such as blockchain.[23] They are not issued by any central authority (i.e public authority such as central bank) and can be used as a medium of exchange.[24] For instance, Bitcoin and Ether are a type of crypto assets that perform as mediums of exchange. This term is commonly used to refer to cryptocurrencies.

Crypto mining: Crypto mining is referred to as a proof of work system that allows blockchain network participants to solve forms of cryptographic equations, which grants network participants rewards in the form of cryptocurrencies.[25]

Cryptocurrency: A virtual representation of economic value that allows the secure exchange of goods and services through cryptography.[26] It operates as a peer-to-peer electronic system of transaction (P2P) and is intended to be an alternative to government issued currency.[27] It is best defined as a decentralized medium of exchange.[28] Within the scope of this research paper, digital coin, coin and virtual currencies are terms used interchangeably with cryptocurrency.

[21] Weik M.H., 'asymmetric cryptography. In: Computer Science and Communications Dictionary'. (Springer, Boston, MA, 2000) <https://doi.org/10.1007/1-4020-0613-6_920>, accessed April 4 2021.
[22] Ibid.
[23] EBA Report '*Report with Advice for the European Commission on Crypto assets*', (ECB, 9 January 2019), P. 9.
[24] Ibid.
[25] R. Houben & A. Snyers, 'Cryptocurrencies and Blockchain: *Legal Context and implications for financial crime, money laundering and tax evasion'*, (University of Antwerp- A study for the European Parliament, 2018), P. 18.
[26] R. Houben & A. Snyers, (n 25), P.20.
[27] Ibid, PP. 20-21.
[28] R. Houben & A. Snyers, (n 25) PP. 20-25.

Cryptography: is the process of securing information by encryption into 'unreadable format' that can only be decrypted by a holder of secret keys (referred to as private and public keys).[29]

Digital signature: An instrument that takes the form of an electronic signature that is used to verify the authenticity of an electronic message or transaction.[30]

Direct acyclic graph: In the context of this research paper, a direct acyclic graph is an alternative to the blockchain protocol and used as an illustration to alternative technology other than blockchain, in which cryptocurrencies may operate on. It is also recognized in storing data in topological order, meaning that its sequence functions from earlier transactions to the later ones.[31]

Ethereum: Ethereum is an open-source decentralized platform that operates smart contracts and decentralized application d(apps).[32] These operations are activated by Ethereum's native coin Ether. Ether acts as a medium of exchange on the Ethereum platform, and elsewhere. For instance, it is used for initial coin offerings as many tokens are bought with Ether. Ether[33] is also a recognized payment method for several companies.[34]

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[29] Ibid, P. 14.
[30]'CISA' Understanding Digital Signatures, <https://us-cert.cisa.gov/ncas/tips/ST04-018> accessed 12 May 2021.
[31] S. Popov 2016, *'The Tangle, Version 1.4.3'* (White Paper, 2017), P. 1. <https://assets.ctfassets.net/r1dr6vzfxhev/2t4uxvsIqk0EUau6g2sw0g/45eae33637ca92f85dd9f4a3a218e1ec/iota1_4_3.pdf.>, accessed may 6, 2021.
[32] R. Houben & A. Snyers, (n 25), P. 22.
[33] V. Buterin, '*A Next Generation Smart Contract & Decentralized Application Platform'*, Ethereum White paper, 2013, P. 1, <https://blockchainlab.com/pdf/Ethereum_white_paper-a_next_generation_smart_contract_and_decentralized_application_platform-vitalik-buterin.pdf>, PP.13-14.
[34] Ibid

Fiat currency: Money issued by a government that is not redeemable by commodities such as gold (i.e., US dollar, Japanese Yen).[35] It may be utilized synonymously with legal tender.[36]

Legal Tender: Any instrument recognized by law in a certain nation to meet financial obligations. It is a means of payment that settles public and private debt.[37]

Network: A network here is referred to a blockchain network which generally includes, everything that is related to the network.[38] This includes: the participants, a group of devices with internet connection (i.e computer servers), software that takes part in the network and organizations.[39] For instance, Ethereum is a form of blockchain and the Ethereum network in the wider sense includes everything that is related to the operation of this blockchain network.

Protocol: A protocol is referred here as pre-determined rules that regulate the operation of a blockchain.[40] The participants of the blockchain network must adhere to these rules for the blockchain to perform.[41] It defines the interaction of the system of nodes, and the general system of governance in the blockchain network.[42]

[35] M. Gross & C. Siebenbrunner *'Money Creation in Fiat and Digital Currency Systems' (*IMF- IMF working Paper no. Wp/19/285, 2019) P. 9
[36] Ibid.
[37] Merriam Webster, 'Legal Tender':Definition of Legal Tender <https://www.merriamwebster.com/dictionary/legal%20tender> accessed 21 May 2021>.
[38] A. Parisi, 'Securing Blockchain Networks like Ethereum and Hyperledger Fabric', (Packt, Birmingham, 2020), PP. 9-13.
[39] A. Parisi (n 37), 9-13.
[40] Ibid, P. 9.
[41] Ibid, P. 9
[42] Ibid, P. 9.

Public and private keys: Every participant on a blockchain holds two keys. A private key, that issues digital signatures and transactions. The public key is recognized by everyone on the network and ensures the authenticity of the transaction.[43]

1.5 Disposition

Chapter 1- This chapter presents the entire framework of the research paper. It first proceeds with an introduction to the context of the research, and then concedes with the demonstration of the statement of problem. Followed by the methodology and use of sources and the delimitations of the research. Finally, this chapter additionally explains the definitions and terminologies used for this paper.

Chapter 2- This chapter starts with a background description of international investment law, bilateral investment treaties (BITs), and the role of dispute resolution.

Chapter 3- The first part of this chapter starts with a description of cryptocurrencies and its uses. The second part of this chapter demonstrates an analysis of the functions of cryptocurrencies in comparison to money. Throughout this part, Bitcoin and Ether were used as prime examples in this comparison. Within, the same part the analysis then proceeds to determine whether cryptocurrencies may be classified as digital assets. The third part of this chapter illustrates the general domestic consensus regarding cryptocurrencies.

Chapter 4- First proceeds with a general understanding of the concept of investment in its ordinary English language. Then, follows the understanding of investment under the ICSID convention and case law.

Chapter 5- This chapter addresses the core of this research paper. it proceeds with the existence of an investment under BITs and includes its subsections. Namely, the language used under BITs, territorial link, explicit and implicit requirements.

[43] Ibid, PP. 16-17.

Chapter 6- This chapter presents the general conclusion reached based on the discussions and arguments put forward in the previous chapters. It hence presents the overall findings of this paper.

2. International Investment law and BITs

2.1 Background and concept

The protection of a foreign investor has long extending roots under international law by way of diplomatic protection. It is traced as far back to the 18th century. In the words of the jurist Emmanuel Vattel "whoever ill-treats a citizen indirectly injures the state, which must protect that citizen.[44] This principle spread throughout Western Europe and the United States. It was mainly focused on the protection of nationals from these regions in Latin American countries.[45] However, the alien is confined to this protection under international law due to the state- state relationship. This form of protection granted foreign investors minimum standards of treatment from a host state, and it did not grant a favorable national treatment for all foreigners to be treated equally.[46] The state thereafter initiates the necessary proceedings available against the other state on behalf of its injured national. This symbolizes the historical pillars on the law of diplomatic protection.

Nevertheless, during the second half of the 19th century, at the start of the decolonization period; The protection of property abroad has been practiced and introduced an important extension under customary international law.[47] With this, the concept of development evolved during the 20th century, along with other minor

[44] C. Fenwich '*The Law of Nations, or the Principles of Natural Law'*, Classics of International Law, Book II, Chapter VI (ed. transl. 1916) P. 136
[45] J. Dugard '*Articles on Diplomatic Protection'*, Professor of International law, faculty of law leiden university, (United Nations Audiovisual Library of International law, 2013) P. 1-9. <https://legal.un.org/avl/pdf/ha/adp/adp_e.pdf>. accessed April 28, 2021.
[46] R. Dolzer & M. Stevens, *'Bilateral Investment Treaties'* (Martinus Nijoff, Publishers, London, 1995) P. 58
[47] Amerasinghe, C. Felix., *'Diplomatic Protection'*, Anonymous Translator (OUP, New York; OUP; Oxford, 2008;2009), P. 10.

incremental improvements. Resulting into an accidental formation of international investment law (IIL).[48] IIL acts as an advocate for the development of nations and the protection of foreign investments. Basing foreign investments as a dichotomy between developed and developing countries.

2.2 BITs

The enhancement of international investment law seen to have grown through contemporary means of protection scripted under BITs and multilateral treaties (MITs). These treaties are designed to encourage foreign investments and grant qualified investors a degree of protection against harmful acts that may be committed by a host state. For instance, acts may include indirect or direct expropriation.[49] MITs are recognized to cover the regulation of investments in particular geographical areas, an example of this is the North American Free Trade Agreement (NAFTA). It may also cover certain forms of investments, as those under the Energy Charter Treaty (ECT), which primarily concerns investments in the energy sector.[50]

Despite the alterations in BITs over time, the context and purpose of most BITs remain the same. The forerunners of BITs, Friendship, Commerce and Navigation treaties (FCNs), accommodated provisions that relate to foreign property. These provisions were primarily focused on expediating trade as opposed to regulating foreign investments.[51] FCNs covered a vast category of matters from the right to enter extending to the enforceability of arbitral awards and tax issues.[52] The rise of new independent developing countries in the late 1950s onwards, shed light on the unsuitability of the treaty arrangements.[53] A significant amount of these states expressed doubts on the provisions envisaged under FCNs, such as those of political, economic and cultural co-operation; As it was seen to match states that maintain similar

[48] Ibid.
[49] R. Dolzer & C. Schreuer, *'Principles of International Investment Law'* (2nd ed, OUP, Oxford, 2012), P. 20.
[50] L. Mouyal, *'International Investment law and the right to regulate: a human rights approach'*, (Routledge, New York, 2016), P. 11.
[51] R. Dolzer & M. Stevens, (n 46), P. 10.
[52] Ibid, P.10
[53] R. Dolzer & M. Stevens (n 46), P. 10.

economic strength.[54] These concerns were highlighted under UN resolutions, which presented the developing countries desire not to be closely linked to the economies of developed countries.[55] An FCN was therefore not viewed as an appealable tool for bilateral economic co-operation, which paved the way for BITs to partake its role as the favored choice to instigate bilateral ties on investments.[56]

BITs play an integral role in incentivizing a flow of new investments abroad. Nonetheless, it is not the only fundamental purpose of such agreements.[57] They also function on the broad lines of economic co-operation between the contracting states.[58] The provisions of the agreements do not only apply to new investments, but it similarly extends, to all existing investments.[59] Capital importing countries by concluding BITS send an important message to the international business community, by welcoming to host foreign investments, and vowing protection to certain foreign ventures.[60]

In the context of cryptocurrencies, it will be intriguing to administer if the existence of broad definitions of an investment under current BITs may encompass the definition of a cryptocurrency. Whether it encompasses its virtual form, crypto-assets, transactions or investments that are affiliated with cryptos such as crypto mining. As this will be a vital factor in allowing investors access to dispute resolution, and if cryptocurrencies are not covered under current BITs.

2.3 The Role of Dispute Resolution

Traditionally, an individual or entity had no right to sue a host state for any wrongdoings committed by the latter. The individual or corporation, thereby must submit petitions to their respective governments to espouse a claim.[61] When a state decides to espouse a claim under its name, it therefore grants its aggrieved national

[54] Ibid, 11.
[55] Ibid, 11.
[56] Ibid, PP. 13-14
[57] Ibid, PP. 16-18.
[58] Ibid, 16-18.
[59] Ibid 16-18.
[60] Vanvelde, *'The Bilateral Investment Treaty Program of the United States'*, 212, (Cornell int'l L.J, 1988), vol (21), P. 212.
[61] N. Blackaby & Others, *'Redfern & Hunter on International Arbitration'* (6th Ed., OUP, 2015) p. 441.

diplomatic protection.[62] In contemporary times, however, allowing the foreign investor access to arbitration is an important aspect of investment protection. As it provides neutrality that excludes any form of procedural and political bias paving the path for an aggrieved party in receiving compensation.

In contrast to the traditional approach, access to dispute resolution under international investment law is not confined to state parties of a treaty. Many BITs and MITs have conferred rights to third party private actors, in directly instigating claims against the host state to the investment developing an uncommon approach under international law.[63]. This is possible through the consent granted under Investor- State dispute settlement (ISDS) mechanisms in a given treaty to arbitrate. In terms of arbitration, such provisions will usually entail the procedural rules applicable, albeit institutional or ad hoc. An example of institutional rules is found under ICSID, and UNICTRAL for *ad hoc*.

2.3.1 ICSID Arbitration

It is true that under investment disputes, the absence of a precise agreement to resolve a dispute may subject the dispute to the jurisdiction of national courts, this will likely go under the jurisdiction of the host state to an investment.[64] The *ICSID convention* does not *per se* automatically restrict the disputing parties from litigating before national courts.[65] Even so, with the existence of an obvious consent to ICSID arbitration by both disputing parties, in principle, should exclude all alternative remedies including national courts.[66]

ICSID is the premier forum for resolving investment disputes, most investment cases fall under the ICSID convention. The Centre's system is placed in providing a balance, between the interests of investors and host states alike.[67] It thus, permits the

[62] S. Sampallo, *'Investor- State dispute Settlement in the TTIP- A fair Dispute Resolution Mechanism or the Bane of Democracy?'* (LUP, 2016) P. 13.
[63] Dolzer & Stevens, (n 46), P. 116.
[64] UNCTAD, *'course on dispute settlement Dispute Settlement: ICSID, Module 2.2 Selecting the Appropriate Forum'* (New York and Geneva,2003) P. 9, < UNCTAD/EDM/Misc.232/Add.1> pdf.
[65] See generally, ICSID convention, 1966.
[66]Ibid.
[67] ICSID, Preamble, 1966.

foreign investors direct access to a neutral international forum, and its jurisdiction is narrowed to disputes that are borne directly out of an investment.[68] Risk, duration and economic contribution are important elements to consider for an ICSID tribunal to determine the existence of an investment.[69]

This international forum also adheres to the principles of depoliticizing investment arbitration. Once, ICSID is the chosen forum, the investor's state is thereafter excluded from exercising diplomatic protecting or initiating any international claims against the host state.[70] With the exception, where the host state refuses to adhere to the award rendered, making its enforcement by the investor difficult or nearly impossible. Then the investor's state may take the necessary international action against the host state. [71] Although UNICTRAL is a valid alternative under BITS for an investor to pursue. It is quite rare for an investor to do so, usually ICSID will be the prime choice of the investor. Therefore, for the purpose of this research paper, ICSID case law, and the definition of an investment under the convention will provide guidance, in aiding the finding if cryptocurrencies are recognized investments under current BITs.

3. **A Bit of the Coin:** Cryptocurrencies and Blockchain

3.1 Introduction

Moving from the physical features set by central bank entities in securing value, such as vaults, signatures and securities that require locks.[72] In the digital world, cryptography takes the form of securing digital information and transactions by way of blockchain technology.[73] The enhancement of this cryptographic technology by Satoshi Nakamoto allowed the creation of a decentralized '*peer to peer (P2P) electronic*

[68] Article 25 ICSID, 1966.
[69] See, *Salini v. Morocco*, ICSID Case No. ARB/00/4, Decision on Jurisdiction, 152 (Jul. 23, 2001), 42 I.L.M. 609 (2003).
[70] I. Shihata, *'The Settlement of Disputes Regarding Foreign Investment: The Role of the World Bank, with Particular Reference to ICSID and MIGA.*' (AUILR Review, 1986) no. (1), P. 97-115.
[71] I. Shihata (no. 69), P. 114; also see Article 27 ICSID, 1996.
[72] . J. Katz & Y. Lindell, 'Introduction to Modern Cryptography' (2nd Ed., Chapman & Hall CRC, London, 2015), P. 22.
[73] R. Houben & A. Snyers, (n 25) PP. 20-25.

transaction system', and introduced the first use case of this system, Bitcoin.[74] Disabling the role of a trusted central intermediary in approving and verifying electronic transactions.[75] In the words of Nakamoto, "A purely peer-to-peer version of electronic cash would allow online payments to be sent directly from one party to another without going through a financial institution". [76]

The development of Bitcoin was a solution to the double spending problem, without the need of a third-party intermediary to verify a transaction, which was a barrier to previous cryptographers.[77] As the trust in a currency is placed in the mint or a trusted third party, such as a central regulated bank.[78] The possibility of removing the traditional trust-based system was seen through a public announced ledger known as blockchain. Block chain is the key element in introducing the decentralized system of payment. Its distributed ledger technology (DLT), enables a method of recording and sharing information by multiple data stores (ledgers).[79] These ledgers maintain exact data records and are controlled by a network of data servers referred to as nodes.[80] It, hence, functions to store all transactional records of cryptocurrencies in group of blocks that are linked together; Creating traceable and immutable transactional records.[81] This form of ledger system enables the global transfer of Bitcoins from one party to another, in complete anonymity and minimal transaction fees.[82] Another variable which assisted restricting double spending and counterfeiting of digital coins is the scarcity of Bitcoin, as only a limited quantity of twenty-one million coins will be mined and in circulation.[83]

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[74] S. Nakamoto, '*Bitcoin: A Peer-to-Peer Electronic Cash System*, White Paper (2008), PP. 1-5. <https://bitcoin.org/bitcoin.pdf>, accessed May 6, 2021.
[75] S. Nakamoto, (n 74), PP. 1-5.
[76] S. Nakamoto, (n 74), (Abstract), Para. 1, page 1.
[77] Ibid, P. 2.
[78] Ibid, P. 2.
[79]. R. Houben & A. Snyers, (n 25), P. 15.
[80] World Bank Group (H. NATARAJAN, S. KRAUSE, and H. GRADSTEIN), *'Distributed Ledger Technology (DLT) and blockchain'*, 2017, FinTech note, no. 1. Washington, D.C
[81] Ibid.
[82] J. Ryan *'Cryptoasset :Investing in the Age of Autonomy'*, (Wiley, New Jersey, 2021), P. XVIII.
[83] J. Ryan (n 82), P. XVIII; S. Nakamoto (n 74), P. 3-4.

Setting aside Bitcoin, all other cryptocurrencies are referred to as altcoins (alts), the alternative coins to Bitcoin.[84] Relative to Bitcoin, most alts run on blockchain technology, with some exceptions, such as IOTA (MIOTA). The technology is based on a *'block chainless'* approach and is algorithmically designed to be processed by IOT.[85] It relies on a direct acyclic graph instead of blockchain, and it is one the first crypto projects to institute micro transactions.[86] Cryptocurrencies are majorly based on the main features of Bitcoin.[87] Besides utilizing blockchain and being decentralized, Safety, is an inherent attribute of cryptocurrencies, as transactions are encrypted once executed.[88] Making it virtually impossible to tamper with the chain of transactions recorded on the distributed ledger.[89] Which brings the next feature, anonymity. Although, it is true that blockchain dictates transparency, as it is functions as a traceable ledger system. However, it is anonymous in the sense, that transactions are certified by way of digital signatures, without the need of any further personal information of any participants of the transaction.[90] Another feature is that the majority of crypto currencies maintain a finite supply, a limited number of coins that will be mined and in circulation.[91] Convertibility is correspondingly, a special derivative for crypto currencies, as fiat currency is directly exchanged with a token, through crypto wallets or crypto exchanges.[92]

[84] E. Harrod, *'Bitcoin: Discovering the Basics of Cryptocurrency: Learning all About This Controversial Cryptocurrency'*, (Createspace Independent Publishing Platform, Scotts Valley, 2017) ISBN: 1979322872, P. 50.
[85] S. Popov 2016, *'The Tangle, Version 1.4.3'* (White Paper, 2017), PP. 1-3, <https://assets.ctfassets.net/r1dr6vzfxhev/2t4uxvsIqk0EUau6g2sw0g/45eae33637ca92f85dd9f4a3a218e1ec/iota1_4_3.pdf.>, accessed may 6, 2021.
[86] Ibid, P. 2.
[87] J. Ryan (n 82), PP. 5-7.
[88] N. Daskalakis & P. Georgitseas, at 5. *'the crypto market ecosystem'* (Routledge, Oxfordshire, 2020), P. 7.
[89] N. Daskalakis & P. Georgitseas, (n 88), P. 7
[90] Ibid, P. 7.
[91] Ibid, P. 8.
[92] Ibid, P. 10.

Cryptocurrencies are held in digital wallets through electronic software.[93] One illustration of this is Trust wallet[94]; Another is an online platform known as Coinbase.[95] It may additionally be held on personal electronic items; For instance, smart phones, tablets and on computer systems.[96] Storing cryptocurrencies in paper wallets or offline wallets are valid alternatives too.[97] Additionally, cryptocurrencies may be stored in more than one wallet, with each wallet having a private and public key.[98] This form of asymmetric cryptography ensures secure protection of blockchain transactions. The private key will thereupon permit the user access to the crypto wallet to process a transaction. Whilst the public key is utilized by the network server in identifying the owner. [99]

As stated above, there are various use cases for crypto projects. These projects are put into being by initial coin offerings (ICOs). ICOs are a novel method in collecting capital for new entrepreneurial ventures.[100] By way of ICOS, ventures offer a certain quantity of crypto assets, also referred to as tokens, to promote to the public.[101]Therefore, new startup companies, are able to accumulate finances through fiat money or cryptocurrencies to endorse the new technology-based project.[102] It may be compared to those startups issuing initial public offerings (IPOs), supplying certain number of shares at a fixed price to the public, in order to raise capital for their business models. Unlike IPOs, ICOs are commonly unregulated, which stagnates a magnitude of controversy relating to investment and legal risks under this space. [103] If the tokens are viewed to be a security under a particular country's securities law. It will then be promoted as a security coin offering, and it will be required to be registered before commencing the public offering. For instance, the US

[93] F. Guillame, '*Aspects of Private International law Related to Blockchain Transactions, Blockchain, Smart Contracts, Decentralized Autonomous Chains and the law*, D. Kraus and others (Elgar, Ed., Cheltenham 2019), PP. 64-65.
[94] See, Trust Wallet Website< https://trustwallet.com/>.
[95] See, L. Conway, (n 20).
[96] F. Guillame, (n 93), P. 64.
[97] Ibid, P.64.
[98] Ibid, P. 67-69.
[99] F. Gillaume, (n 93), P.53
[100] R. Vargas & Others, '*Blockchain and the Chief Strategy Officer: How Distributed Ledger Technology will Change Strategy Design and Deliver'*, (Blockchain Institute, August 2019), PP. 4-5.
[101] Ibid.
[102] D. Nestarkova, A critical Appraisal of initial coin offering: Lifting the Digital Tokens Veil, ISBN:13 978-9004416574, (Critical Ed., Brill, The Hague, 2019), P. 5.
[103] Ibid

Securities and Exchange Commission (SEC) requires the ICO to be registered if it is determined to be a security under jurisdiction of enforcing federal securities law. [104]

3.2Ethereum (ETH)

It is essential to pertain the view that cryptocurrencies maintain different usages, especially for the following stages of this research paper, in order to administer the characteristics of cryptocurrencies and whether they fall within the scope of a protected investment. It also should be mentioned that a large majority of crypto projects are based on Ethereum, an open-source decentralized platform.[105] This illustration will specifically provide a basic understanding of the different uses the Ethereum network provides through its payment method.

As previously noted, Bitcoin, is strictly a cryptocurrency as it administers a p2p electronic transaction system. Whereas Ethereum's network native coin, 'Ether' is utilized in a much wider sense.[106] Even though it is based on the fundamentals of Bitcoin, as it maintains similar cryptographic design functions.[107] Ether is able to fuel multifaceted operations, while being powered by the Ethereum platform. It runs unique operations known as smart contracts, and decentralized application developments (D)apps.[108]

Smart contracts form one of the most interesting uses of blockchain technology. Although, its concept has been earlier defined, its application is best known through Ethereum. [109] A Smart contract is a set of computer codes accompanied with if/then statements, that are automatically executed by software, after the conditions that had been pre-defined in the codes are met.[110] The codes may manifest the entire agreement, or it may

[104] SEC.gov | Spotlight on Initial Coin Offerings (ICOs)
[105] See, A. Hertig, Coin Desk, 'Which Crypto Projects are based on Ethereum?', (Coin Desk, 2021), <https://www.coindesk.com/which-crypto-dapps-are-on-ethereum, accessed May 11, 2021.>
[106] V. Buterin, (n 33), P. 1.
[107] Ibid, PP. 2-3.
[108] Ibid, P. 20.
[109] See generally, N. Szabo 'Smart Contracts: Building Blocks for Digital Markets', 1996 <https://www.fon.hum.uva.nl/rob/Courses/InformationInSpeech/CDROM/Literature/LOTwinterschool2006/szabo.best.vwh.net/smart_contracts_2.html, accessed May 20, 2021>.
[110] F. Guillame, (n 93), P. 54.

act in executing specific provisions of 'traditional text- based contracts'[111] An example of entire agreements, was demonstrated by Szabo in 1997[112], as he introduced a basic example of how smart contracts work. He provided the instance, where a person, interacts with a vending machine; A person will place the exact amount as needed to purchase the goods from the machine. 'Goods will then be handed to the person'- transaction which will be automatically processed and founded on the if/then principle.[113] This will secure an automated and irreversible transaction. Another example where smart contracts may be applied, is by aiding a sales agreement (being the base contract). The base contract notes a particular date for a payment to be made. A smart contract will therefore execute this condition without further action required by either of the parties. It executes precisely as per the code, using a certain programming language. The most used language is solidity.[114]

Codes cannot be altered after they been documented on the block chain and the performance of the base contract is theoretically guaranteed via the operation of the smart contract.[115] As they ensure that the terms of the base contract are stored safely in the blockchain network. Smart Contracts are however not to be understood in the legal sense of being contracts. They allow the enforcement of specific types of agreements between parties. With regards to Ethereum, the execution of smart contracts occurs on the Ethereum Virtual Machine (EVM), and payments are made by Ether.[116] The payment method is known as 'gas'.[117] Thus, the complexity of the smart contracts will determine the necessary fees to be paid, the more complicated the terms, excess gas payments will be needed. Gas acts a preventive measure to the exhaustion of the EVM system in place, and limits certain

[111] S. D. Levi & others, *'An Introduction to Smart Contracts and Their Potential and Inherit Limitations'* (Harvard Law School Forum on Corporate Governance, May 26, 2018), <An Introduction to Smart Contracts and Their Potential and Inherent Limitations (harvard.edu)>.
[112] Ibid.
[113] '*Detecting Ponzi Scheme on Ethereum: Towards Healthier Blockchain Technology'* (Lyon, April 23, 2018), <http://uu.diva-portal.org/smash/get/diva2:1263913/FULLTEXT01.pdf>, accessed May 23, 2021>.
[114] Szabo, (n 109); S. D, Levi & others (n 111).
[115] F. Guillame, (n 93), P. 54; also *See* "What is the 'Gas' in Ethereum?" *Cryptocompare*, November 18, 2016, https://www.cryptocompare.com/coins/guides/what-is-the-gas-in-ethereum/, accessed May 24, 2021.
[116] S. D, Levi & others (n 111).
[117] Ibid.

numbers of contracts that may be executed.[118] Therefore, in order to ensure the legitimacy of the system and restrain fraudulent behaviors that may be committed by participants.[119]

Additionally, Ethereum being the blockchain based system, allows arbitrary operations of programs through smart contracts. By virtue of using the Ethereum smart contracts, software programmers can create tokens over the Ethereum platform.[120] Tokens as highlighted above are issued during ICOs in the form of token sales, in order to accumulate investments for their new business models. Tokens that are based on the Ethereum platform during their token sales, will accept payments in Ether.[121]

Ethereum has targeted a change to the usage of cryptocurrencies in D(apps).[122] It may be compared to the internet and web applications. For example, Facebook, twitter and robin hood are applications generated and layered over the internet. While being regulated by a central authority. Similarly, Ethereum allowed 'layering' of decentralized applications. While using smart contracts, and by navigating the D(app) system the programmers can 'layer' new software on the Ethereum network, for multiple purposes, such as gaming, financial services and ICO fundraising.[123]

3.3The Classification of Cryptocurrencies

This chapter in the first part will analyze the basic economic properties of blockchain based currencies such as Ether and Bitcoin. This will be done in comparison to the qualities of money. This is important as to categorize whether cryptocurrencies will preside within the definition of money and will be protected under BITs. With this said, as it is not possible to include an analysis for all 4,000 cryptocurrencies currently in existence.[124] This analysis will only cover the two largest market share holders Ether and Bitcoin. The second part

[118] V. Buterin, (n 33), P. 14.
[119] Ibid, P. 14.
[120] V. Buterin, (n 33), P. 2.
[121] S. D, Levi & others (n 111).
[122] V. Buterin, (n 33), P. 2.
[123] Ethereum, 'Decentralized Applications Dapps', <https://ethereum.org/en/dapps/>, accessed April 29 2021.
[124] L. Conway, 'The 10 Most Important Cryptocurrencies other than Bitcoin', (Investopedia, Jan 19 2021), <https://www.investopedia.com/tech/most-important-cryptocurrencies-other-than-bitcoin/>, accessed May 4, 2021.

will address the general meaning of the term investment. The second part will demonstrate the general regulatory approach countries have adopted towards cryptocurrencies.

3.3.1 Money

The primitive forms of money have shifted throughout the years, gold, metals and shells have all taken the form of money.[125] The common form of money nowadays, is known as a fiat currency. A fiat currency does not have an intrinsic value, as it is not supported by any commodities such as gold or silver.[126] Therefore, its value is linked to the performance of a country's economy.[127] The US dollar (USD) is an example of what constitutes a fiat currency. Moreover, for a cryptocurrency, gold or a banknote to be identified as monetary standard, there are three elements that they must suffice: (1.) medium of exchange, (2.) a store of value, and (3.) a unit of account.[128] A medium of exchange is as an instrument that acts as a generally recognized intermediary that facilitates the sale/purchase of goods and services between parties.[129] Whereas, a store of value, is an asset, currency or commodity that maintains a stable price over time. For instance, gold and other precious metals are considered good stores of value as their prices are susceptible to deterioration over time.[130] Finally, units of account, refers to the standard measurement of goods and services in an economy.[131] Money must therefore serve the function of accounting, in determining its own denominative value[132]. It acts as a measurement system to assess the price of goods and services. For instance, in determining the price of Swedish Krones, it will either be compared to another currency such as the Euro or other goods and services (e.g.,1000

[125]G. Davies, A History of Money: From Ancient Times to Modern Day, (University of Wales Press, Cardiff, 3d ed. 2002), P. 35-45.
[126] M. Gross & C. Siebenbrunner (n 35), P. 9.
[127] Ibid, P. 9.
[128] F. Ballabriga & C. Mongay, 'Monetary & Fiscal Policies in EMU: Interactions and Co-ordination), edited by M. Buti, (Eds., Cambridge University Press, Cambridge, 2003), P. 274.
[129] European Central Bank, Virtual Currency Schemes - October 2012, Frankfurt am Main, 2012, ISBN: 978-92-899-0862-7, online: European Central Bank, 2012, PP. 9–10.
[130] European Central Bank, 'Understanding the Crypto-Asset Phenomenon, Its Risks and Measurement Issues' (*European Central Bank*, 7 August 2019) <https://www.ecb.europa.eu/pub/economic-bulletin/articles/2019/html/ecb.ebart201905_03~c83aeaa44c.en.html> accessed 3 May 2021, PP. 5-9.
[131] D. Kidwell & others, 'Financial institutions, market and money', (12th Ed., Wiley, New York, 2016), P.9.
[132] Candidate No: 8001, Faculty of Law 'Bitcoin: Currency But not Money', (University of Oslo, Faculty of law, 1, Dec, 2017), P 54.

Krona is worth a mobile phone, or one hour of medical consultation is worth 1000 Krona).[133] These three elements are interconnected with each other. This means that all three must be present in order to standardize something as monetary standard.

Taking into consideration the two largest cryptocurrencies in terms of market cap, Ether and Bitcoin. It may be argued that both function as efficient mediums of exchange, as they sustain fraudulent resistant, portable and divisible characteristics.[134] Fraudulent resistant in the sense that is virtually impossible to recreate or double spend cryptocurrencies being operated on blockchain, such as Bitcoin and Ether. They are portable as being easily transferrable from one digital wallet to another, and divisible as being able to be turned into smaller units. For instance, Bitcoin is divisible by eight decimal points (0.00000001 Bitcoins), with its smallest unit referred to a Satoshi.[135] It is therefore divisible by 1000,000,000 units, permitting payments in fractions of a Bitcoin for goods and services.[136] Similarly to fiat currency, a governmental issued currency such as the US dollar, it is possible to pay for transactions on a micro level by cents or quarters.[137]

It is worth mentioning that blockchain also performs unique functions of a transaction in monitoring, auditing and enforcing a transaction, while acting as a facilitator of the transaction.[138]. With this, the growth of the network in cryptocurrencies plays a role in becoming more appealing options in suiting into the form of mediums of exchange. For instance, continuous developments made to the Ethereum network such as the introduction of the Ethereum 2.0, demonstrates an example, for a network to positively contribute to the price of Ether.[139] This in turn attracts businesses in accepting Ether as a payment method. Ether is also utilized as a medium of exchange within the Ethereum network, in processing transactions known as gas as it was elaborated above and using Ether as a payment method

[133] Ibid, P. 54.
[134] I., 'Linderbrandt & M. Gartz, 'are cryptocurrencies the future of money?', (KTH Royal Institute of Technology, Stockholm, 2017), PP. 4-11.
[135] Hanna Halaburda and Miklos Sarvary, *Beyond Bitcoin: The Economics of Digital Currencies* (Springer 2016). PP. 156- 157
[136] Ibid, PP. 156-157.
[137] Ibid, PP. 156-157.
[138] T. Kiviat, '*Beyond Bitcoin: Issues in Regulating Blockchain Transactions'*, (Duke Law Journal, 2015), Vol 65:569, page 585.
[139] S. Bingi, 'Learning Ethereum 2.0', (Packt, Mumbai, 2019), PP. 1-3.

in creating decentralized applications for a vast range of services.[140] To add to this point, the Ether blockchain was recently used in order to process the first ever digital bond by the EIB for an issued amount of 100 million Euros, through a digital bond sale.[141] The blockchain distributed and settled the entire process. this further bolsters Ethers utility use in being a medium of exchange.

Based on the afore mentioned, Bitcoin and Ether are considered decent mediums of exchange. Where, in terms of units of accounts, it must be a widely recognized measurement of value. Currently, the use of cryptocurrencies in this regard is limited. There are currently no lenders that will process debt or other forms of loans based on Bitcoin's or Ether's units of accounts', or any other cryptocurrency in that matter.[142]

Observing the store of value criteria, it may be stated that a cryptocurrency will generally perform weakly as store' of value and hitherto is an imperfect alternative of a fiat currency. Although, Bitcoin has a limited supply of 21 million cryptocurrencies, its supply is not controlled or regulated unlike that of fiat currency.[143] A Fiat currency is protected by legislation and fixed amount of fiat currencies are issued every year by the central bank. Therefore, the performance and price of fiat currency are more predictable than that of Bitcoin's or Ether's. An illustration of Bitcoin's performance compared to the EUR/USD exchange rate will be demonstrated below.

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[140] F. Maldonado, *'Introduction to Blockchain and Ethereum: Use Distributed Ledgers to Validate Blockchain Transactions'*, (Packt, Mumbai, 2018), PP. 3-4.

[141] European Investment Bank, 'EIB issues its First Ever Digital Bond on a Public Blockchain', Settlement date: 28, April, 2021. https://www.eib.org/en/press/all/2021-141-european-investment-bank-eib-issues-its-first-ever-digital-bond-on-a-public-blockchain, accessed May 3, 2021.

[142] 'Bitcoin Lacks the Properties of a Real Currency | MIT Technology Review' <https://www.technologyreview.com/2014/02/18/173917/bitcoin-lacks-the-properties-of-a-real-currency/> accessed 4 May 2021.

[143] R. Derroussea, *'The Everything Guide to Investing in Cryptocurrencies From Bitcoin to Ripple, The safe way and Secure way to Buy trade and Mine Digital Currencies'* (Simon and Schuster, Massachusetts, 2019), P.70.

Figure 1 – (Source: Coinbase & FRED), left Y-axis[144]

Figure 1 represents the time period from April 2019 until April 2021 on the x-axes. The y-axes state the price of Bitcoin based on the US dollar reserve currency (USD). While observing figure 1 as seen above, it is clearly indicative that the price of Bitcoin has positively yielded through the two-year time frame, it has however faced significant price movements. For instance, during the end of June 2019 the price of Bitcoin trended downwards from 12,900 US dollars to approximately 9,400 USD in the middle of July. Therefore, losing 27% of its value within this time period. From the beginning of September 2020 to the middle of March 2021 the price projected upwards from 10,100 USD topping up to approximately 61,100 USD. This move represents a 504.95% increase in the span of six months.

Figure 2 (Source: Coinbase & Fred), left Y- axis[145]

[144] Coinbase, Coinbase Bitcoin [CBBTCUSD], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/CBBTCUSD>, May 2, 2021.

[145] Board of Governors of the Federal Reserve System (US), U.S. / Euro Foreign Exchange Rate [DEXUSEU], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/DEXUSEU>, accessed May 2. 2021.

Figure 2 represents the same time period as figure 1 from 1 April 2019 to 1 April 2021 on the x-axes. The y-axes represent the exchange rate of the USD against the units of the Euro (EUR). For example, 1 USD= *x* amount of EUR. As it is shown above, the exchange rates did not shift as significantly in a three week or six-month time frame. For instance, during the end of June 2019 the exchange rate trended upwards from 1.10 to 1.14 in the middle of July. Hence, forming a 3.6% increase. While, referring to figure 2 it is additionally seen that between the time period of beginning of September 2020 to the middle March 2021, the exchange price trajected a downwards move from 1.19 to 1.17, forming a 1.6% decrease.

After assessing the two figures, the price fluctuation of Bitcoin is seemingly more volatile than the USD/EUR exchange rates during the same time period. Although Bitcoin has positively appreciated during this two-year time period, its price is nor predictable or stable. Especially in comparison with reserve currencies such as the EUR and the USD, they provide a stronger base for being store of values due to their stability. Bitcoin, Ether and likely other cryptocurrencies are unlikely to satisfy the store of value requirement. Thus, they will not succeed in satisfying all three elements of monetary standard. With this, not all cryptocurrencies are intended to function as. Ether for instance functions more than a digital coin in the same way Bitcoin functions, as it additionally operates for non-monetary uses such as d(apps) and smart contracts.

3.3.2 Legal Tender

With this stated, even where Cryptocurrencies will satisfy the three elements of monetary standard, they are generally not considered to be legal tenders. Legal tenders are generally accepted as being instruments in settling public and private debt, and a natural or legal person should not refuse the acceptance of this method of payment.[146] As they are the legally recognizable methods of payment within an economy. Every individual economy defines what forms a legal tender.[147] Usually, it constitutes the

[146] S. Sebasta, Institutional Economics: *'Its Place in Political Economy'*, John R Commons with a new introduction by Malcom Rutherford (Ed., Routledge, London, 2017). P. 465.
[147] T. Niska, *'The Use of Cryptocurrencies: Is the use protected?'*, (Orebro Universitet Library, Orebro, 2020), P. 22.

national currency of an economy and are issued by central banks or monetary authorities, by virtue of legislation.[148] However, some currencies are utilized in states that are not considered to be national currencies. For instance, Ecuador in the year 2000 has adopted the USD as the primary legal tender. [149] This adoption occurs for various reasons, it may be that countries do not have any local currencies or their local currencies are not as stable as reserve currencies such as the USD and EUR. [150] Even though countries have legally defined financial instruments, such as legal tenders, it does not mean that other payment methods within the state is restricted, if there are no laws prohibiting or restricting such payment methods. [151] Considering the decentralized nature of cryptocurrencies such as Ether and Bitcoin, as they remain in private hands and are not regarded as legal tenders. In addition to this, they do not currently fulfil the requirements of being of monetary standard. However, it undeniable that they represent a form of Economic value. In the sense that they are used as fundraising methods in ICOs, forms of mediums of exchange in transferring value by natural and legal persons.

3.3.3 Digital Assets

As it has been established above with the examples of Bitcoin and Ether, they do perform as sufficient mediums of exchange. Given the fact that most cryptocurrencies are designed on the basic functions of Bitcoin as they are based on blockchain technology. It will be assumed for the purpose of this research paper, that most cryptocurrencies will also perform as sufficient mediums of exchange as their main utility. From now on, we will refer to cryptocurrencies in general instead of using 'Ether' and 'Bitcoin' as separate illustrations.

Moreover, as blockchain technology is choreographed by cryptography, which is a mean in transmitting, storing, and encrypting digital information. It will be of interest

[148] S. Sebasta, (n 146), PP. 465-467.
[149] *Beckerman, Paul. 2001. Dollarization and Semi-Dollarization in Ecuador. Policy Research Working Paper;No. 2643.* (World Bank, Washington, DC. World Bank). *<https://openknowledge.worldbank.org/handle/10986/19595 License: CC BY 3.0 IGO>,* P. 1-4, accessed 1 May 2021.
[150] Ibid, P. 5.
[151] See, T. Niska (n 147), P. 40.

to determine how cryptocurrencies will fit in the class of digital assets. Digital assets do not maintain a unified form and lack a universally agreed technical and legal definition.[152] Nevertheless, various planning experts, tax experts and national legislators have attempted a closer observation into what constitutes a digital asset.[153] According to their analysis a few characteristics have been submerged, and it is best summarized as "[A] digital asset is a collection of binary data which is self-contained, uniquely identifiable and has value".[154] The Cambridge English dictionary further generally defines data as "information in an electronic form that can be stored and used by a computer".[155] Complying with this definition to the characteristics of blockchain, it is apparent that blockchain holds immutable records of transactions and runs on multiple computer servers known as nodes. Therefore, blockchain fits in the general definition of data as it stores electronic information by using the internet (running on computer servers).

Through blockchain, data is stored in a chain of blocks with non-reversible records, which fits in the category of 'self-contained'. It is 'uniquely identifiable' by way of digital signatures in verifying a transaction. As it is mentioned above, blockchain acts as a facilitator and settlor of transactions from one participant to the other. This form of transactional process seems to perform more clearly as a unique type of database, in a way that it stores multiples of data (records digital transactions), distributes and executes them (verifying and sending the recorded transaction to recipient). With this said, being the core technology of most cryptocurrencies, it therefore inherits them the role of being mediums of exchanges. It is thereupon arguable that through this role of cryptocurrencies grants them economic value status under the definition of digital assets presented above in processing data between participants. The OECD has recognized data as a core asset in the digital sphere, and assets represent economic

[152] See J. Bick, 'All Digital Assets Are Not Legally Equal, (L.J. NEWSLETTERS Nov. 2017)', <https://www.lawjournalnewsletters.com/sites/lawjournalnewsletters/2017/11/01/all-digital-assets-are-not-legally-equal/>, accessed 7 May 2021
[153]Ibid.
[154] Ibid.
[155] 'Data' (Cambridge English Dictionary Online, May 2021) <https://dictionary.cambridge.org/dictionary/english/data> accessed 9 May 2021.

value.[156] It may further be argued that cryptocurrencies are usually subjected to taxation and this indicates its economic worth. The ECB also acknowledged the value of cryptocurrencies, through a submitted opinion to amend directive EU 2015/849, and presented the following in their commentary: *'a digital representation of value that is neither issued by a central bank or public authority,…., but is accepted by natural or legal persons……and can be transferred, stored and traded electronically'*[157]

With regards to the basic characteristics of a digital asset as highlighted above, cryptocurrencies will therefore fit into this definition, as being a form of digital database that is able to process transactions 'functions as a medium of exchange' by virtue of the data recorded and stored. Nevertheless, without a unitary consensus of cryptocurrencies, it must be later determined in the later chapters whether cryptocurrencies will be protected in bilateral treaties as being a unique form of digital assets.

3.4 National orders and Cryptocurrencies

The application of blockchain, the technology behind cryptocurrencies, forms a sector of the internet.[158] The internet is dematerialized and transnational. The use of the internet is therefore spread across borders. Blockchain being based on the internet forms an extension of this use.[159] The international character of blockchain remains on its trustless core in transmitting cross border transactions. Although the technology is expanding across borders, the international struggle persists in regulating and identifying cryptocurrencies internationally. This state of confusion is seen to be established through inconsistent legislations on cryptocurrencies by national legal

[156] Organization for Economic Co-operation and Development, OECD 2016, Ministerial Meeting on the Digital Economy: Innovation Growth and Social Properist: Background paper, (2016): BACKGROUND PAPER 5 (2016), P. 7.
[157] European Central Bank: Opinion of the European Central Bank III, Prepatory Acts- Proposal to amend Directive EU 2015/849, (Official Journal of the European Union, 9 Dec. 2016), P. 2, Para. 1.1.3, accessed 6 May 2021.
[158] F. Guillame, 'Aspects of Private International law Related to Blockchain Transactions, Blockchain, Smart Contracts, Decentralized Autonomous Chains and the law, D. Kraus and others (Elgar, Ed., Cheltenham 2019), P. 59.
[159] Ibid, P.60.

orders. This is especially witnessed through the fluidity of the legal classifications of cryptocurrencies and affiliated products that fall within its realm, across national borders.[160] For instance, Thailand uses the term digital currency, while countries like Canada and Taiwan refer to it as virtual commodity.[161] However, the contemporary widely recognized approach, in addressing cryptocurrencies is by issuing warnings to the public of the financial dangers involved. Examples of these warnings were be issued by authorities such as the SEC, and the European Banking Authority ('EBA') alike.[162] These issuances are generally put forward by central banks, and relevant national actors. The issuance of these warnings does not prohibit the use and existence of cryptocurrencies.[163] On the contrary, it may be stated that it is an indirect acceptance of cryptocurrencies, and if they were prohibited there is no reason to issue a warning.

Many countries have followed suit in issuing these warnings around the globe, which leads to a wider acceptance of cryptocurrencies.[164] It is important to inherit a view on national legal status of cryptocurrencies, before addressing the following chapters to retain the view on the general regulatory consensus on cryptocurrencies. In addition to, recognizing compliance requirements that may need to bet met by foreign investors under BITs of contracting states. In order to protect their cryptocurrency investments. With this mentioned, there are three approaches that administers the disparity of regulations, and they are as the following:

Regulating the use cryptocurrencies

Limiting the use of cryptocurrencies

Banning the use of cryptocurrencies

[160] The Law library congress, 'Regulatory Approaches to Cryptoassets: Comparative Summary, III. Specific Laws on Cryptocurrencies. (The Law library of Congress research centre, Dec. 2020) <https://www.loc.gov/law/help/cryptoassets/compsum.php>, accessed 1 May 2021.
[161] Ibid.
[162] P. Hacker & others, *'Regulating blockchain: techno-social and legal challenges'*, (OUP, Oxford, 2019), P. 119.
[163] T. Niska (n 147), P. 24.
[164] Ibid, P. 24.

The regulation of cryptocurrencies will address the acceptance of cryptocurrencies as of economic value, while not being classified as legal tenders, jurisdictions have defined cryptocurrencies as commodities, financial assets and foreign currency.[165] For instance, the United States defines a cryptocurrency as a commodity and it is regulated by the Commodity Future Trading Commission.[166] Most state actors, such as central banks, have resorted in issuing warnings to the risks accompanied with crypto currency investments.[167] While, some states have gone further to impose regulations against organized crime, terrorist financing, and money laundering regulations.[168] Relatively, the categorization of cryptocurrencies under national jurisdiction have emerged for the purposes of tax laws.[169] This is important for investors in cryptocurrencies to be aware of as it determines the applicable tax bracket, whether being taxed as income or capital gains may vary significantly in the amount to be paid. Other states have taken further initiates in providing crypto-friendly environments. For instance, Belarus in 2017 passed a comprehensive decree on cryptocurrencies, legalizing ICOs and smart contracts on a national level.[170] It was the first country to do so. In terms of ICOs as previously explained above, many nations are currently developing methods in encoding regulations and provide further guidance.[171] Thus, only a limited number of states provided regulatory guidance on ICOs that use cryptocurrencies as a mean to raise funds.[172]

Limiting the use of cryptocurrencies, demonstrates the acceptance of cryptocurrencies by nations, however, while implementing certain regulatory restrictions. For instance, South Korea placed tighter regulations on banks that have accounts on crypto exchanges in 2018.[173] These regulations, will only allow trades to be performed on real-name bank

[165] The Law Library of Congress, (n 12), P. 3.
[166] Commodity Future Trading Commission, 'Bitcoin and other Virtual Currencies', <https://www.cftc.gov/Bitcoin/index.html>, accessed April 27 2021.
[167] The Law Library Congress, (n 12), PP. 7-23.
[168] The Law Library of Congress, (n 12), P. 2.
[169] Contemporary issues in international political economy, P.381.
[170] Decree of the President of the Republic of Belarus No. 8 of Dec. 21, 2017.
[171] The Law library congress (n 12), PP. 13-14; Decree of the President of the Republic of Belarus No. 8 of Dec. 21, 2017.
[172] The Law Library Congress (n 12) PP. 16,17,20.
[173] 'Cryptocurrency Regulations South Korea | ComplyAdvantage' <https://complyadvantage.com/knowledgebase/crypto-regulations/cryptocurrency-regulations-south-korea/> accessed 1 May 2021.

accounts. Hence, a user of an exchange must therefore open a bank account at the same bank as that of the cryptocurrency exchange. The legislators in South Korea, have also passed amendments to this existing legislation in 2020, placing an obligation on cryptocurrency exchanges to obtain a new special operating license before September 2021.[174]

The ban on cryptocurrencies demonstrates government actions that prohibits activities that are in relation to the use of cryptocurrencies. The use indicates any transactions that occur by virtue of a cryptocurrency. The use of cryptocurrencies will be only addressed here, as there are no existing laws that prohibits the holding of cryptocurrencies in digital wallets or elsewhere. Although, a draft bill was proposed on a complete ban on cryptocurrencies in India on a national level for both its use and possession.[175] However, no further actions have been taken. An example that demonstrates banning the use of cryptocurrencies, were such actions taken by the Nepal Rastra Bank, the financial regulator of Nepal in prohibiting managements of any cryptocurrency exchanges on Nepal's territory.[176] In addition, to actions taken by the Chinese government in 2017 in banning operations of exchanges and ICOs within the territories of China, as the country has considered ICOs as a mechanism of 'illegal public financing'.[177] China is currently going further to impose a complete ban on cryptocurrency projects, such as mining in the inner Mongolian region.[178]

These non-harmonized approaches form great relevance to the future protection of international investments in cryptocurrencies. As legality and compliance with investments are common defenses used by host states in arbitration proceedings against foreign

[174] Ibid.
[175] Banerjee P. 2019, 'banning cryptocurrency in india is not a solution: Nasscom', Live Mint, www.livemint.com/news/india/banning-cryptocurrency-in-india-not-a-solution-nasscom-154476081539.html>, accessed May 15 2021.
[176] The Law library of congress, (n 12), P. 101.
[177] M. Manjikian, *Introduction to Cyber Politics and Policy* (CQ Press 2019). P17.
[178] A. Kharpal, 'A Major Chinese Bitcoin Mining Hub Is Shutting down Its Cryptocurrency Operations' (*CNBC*, 2 March 2021) <https://www.cnbc.com/2021/03/02/china-bitcoin-mining-hub-to-shut-down-cryptocurrency-projects.html> accessed 1 May 2021.

investors. The legal qualifications of these approaches to international investment protection will be addressed in further detail below.

4. The Concept of Investment

4.1 General meaning

The concept of Investment under its plain language is defined in various abstract and perspectives. Nonetheless, there are two generally agreed forms of the theoretical understanding of investment.[179] One being in an economical perspective, and the other being in a financial form.[180] In the economic view, the concept refers to the excess of capital stock in society that leads to the production of goods.[181] The economic definition of investment according to Collins, is as the following: "The amount by which the stock of capital (plant, machinery, materials, etc) in an enterprise or economy changes"[182] In the financial perspective the definition includes: the allocation of monetary funds and resources to assets with an expected yield of return over a duration of a certain period.[183]This includes, for instance, the exchange of shares, bonds and real estate with money. Under Black's Law Dictionary, the general definition is termed as follows: **"**An expenditure to acquire property or assets to produce revenue; a capital outlay*"[184]*

Through Black' law dictionary definition, it is notable that the general language used indicates a form of economic contribution, expenditure and acquisition of assets.[185] As previously presented above, cryptocurrencies may encompass the broad terms as instituted by the textbook definitions as being a type of digital asset with economic value. The other

[179] OECD, '*Economics and Finance of life long learning'*, (OECD Publication Service, Paris, 2001), PP. 154-161.
[180] Ibid.
[181] K. Hasset, '*Featured Encyclopedia Entry'*, (The Library of Economics and Liberty,2019) <https://www.econlib.org/library/Enc/Investment.html>.
[182] Collins English Dictionary, 'Investment Definition and Meaning' <https://www.collinsdictionary.com/dictionary/english/investment> accessed 2 May 2021.
[183] K. Hasset (no. 181).
[184] Black's Law Dictionary Free 2nd Ed. and The Law Dictionary, The Law Dictionary - Featuring Black's Law Dictionary Free Online Legal Dictionary 2nd Ed., online: The Law Dictionary, <https://thelawdictionary.org/letter/i/Page 56>, accessed May 2 2021.
[185] Ibid.

definitions presented above are placed in different aspects, which indicates that there is no simple or clear way to indicate what an investment truly constitutes just by observing the plain English language definition of the term investment. Nevertheless, this form of ambiguity might prevail in favor of investors of cryptocurrencies, as it leaves colorful ways in defining what constitutes a cryptocurrency. However, as this might be a good starting point to assess investment through its ordinary language. It is necessary to take a deeper dive into the definition of investment under ICSID and BITs.

4.2 ICSID and the Definition of Investment

Another aspect that is worth assessing is the definition of investment under the ICSID convention. As dispute resolution clauses within BITs form an integral part of investment protection, and it will be difficult to even consider investment protection without dispute resolution.[186] In addition to ICSID being the prime choice for the settlement of investment disputes and serving the purpose in promoting international co-operation in sustaining economic development.[187] This, in turn aims to protect the role of private international investments. It will be of interest to determine how ICSID tribunals approach the definition of investment, as it is clearly indicated, ICSID plays a significant role as an international forum in resolving cross border disputes.[188] Thus, an assessment of the term investment through the word of the convention and ICSID case law is crucial in order to understand the approaches arbitral tribunals adhere to define the term.

At the time signatory states have drafted the ICSID convention, they opted not to make an investment a defined term, as it is illustrated below:[189] According to Article 25 of the ICSID convention "*[t]he jurisdiction of the Centre shall extend to any legal dispute arising directly out of an investment*". [190] Even though the previous article highlights an investment as a criterion for a tribunal to decide its own jurisdiction, no further emphasis has been

[186] R. Dolzer & M. Stevens, (n 46), PP. 10- 15.
[187] ICSID Convention Preamble "the need for international co-operation for economic development and the role of international investments therein". See also, Article 1.
[188] A. Grabowski '*The Definition of Investment under the ICSID Convention: A Defense of Salini,*':(Chic J. Int. Law, 2014) Vol. (15): No. 1, Article 13, P. 297.
[189] A. Grabowski, (n 188), PP. 291-292.
[190] Article 25 ICSID Convention.

added on the legal definition of the term investment.[191] The Executive Directors of the World Bank has not addressed the absence of the definition of investment under ICSID, which became common grounds for arbitral cases in using this as a reference.[192] With this said, an objective standard in determining what constitutes an investment was therefore vital to be construed throughout the arbitral community.[193] Without the existence of an objective standard states could use BITs to submit any dispute regardless of the subject matter to ICSID. Even though, previous arbitral tribunals numerous tribunals have attempted to approach what constitutes the objective standard of investment was first thoroughly analyzed in the case of *Fedax N. V v The Republic of Argentina*[194], and constructed grounds to the elements of an investment. This was then later formulated in the case of *Salini v Morocco,* the salini test sets forth four elements in defining an investment:

(1.) Contribution of money or assets
(2.) An element of risk
(3.) A certain duration
(4.) A contribution to the economic development of the host state[195]

The requirements that have been put forward in Salini has been criticized as to whether they form fundamental aspects to the existence of an investment and received wide criticisms has been displayed in cases such as *Bitwater v Tanzania*[196] and in *Malaysia Salvors v Malaysia*[197]. In the case of CSOB v Slovakia[198], it was held that although the

[191] Article 25; A. Grabowski (n 188), P. 293.
[192] Report of the Executive Directors on the Convention on the Settlement of Investment Disputes between States and Nationals of Other States, Doc. ICSID/2, 1 ICSID Reports, 1993, PP. 23 and 27.
[193] See, for instance, *Kaiser Bauxite Co. v. Jam., ICSID* Case No. ARB/74/3, 296, 297, Decision on Jurisdiction (Jul. 6, 1975); *Alcoa Minerals of Jam. v. Jam.*, ICSID Case No. ARB/74/2, Decision on Jurisdiction, 2/4 (Jul. 6, 1975).
[194] *Fedax NV. v. Republic of Venezuela.*, ICSID Case No. ARB/96/3, (Decision of the Tribunal on Objections to jurisdiction) , 1381 16 (Jul. 11, 1997), 37 I.L.M. 1380 (1998).
[195] *Salini v. Morocco*, (n. 69), Para. 152.
[196] *Biwater Gauff (Tanzania) Limited v. United Republic of Tanzania,* ICSID Case No. ARB/05/22, Award, Para. 314 and Para. 318.
[197] *Malaysian Historical Salvors v. Gov't of Malay*., ICSID Case ARB/05/10, Decision on the Application for Annulment, (Apr. 16, 2009), Para. 57
[198] Ceskoslovenska Obchodni Banka, A.S. v. The Slovak Republic, ICSID Case No. ARB/97/4, Decision on Jurisdiction, (24 May 1999), Para. 69-73.

economic factors illustrated in Salini were common elements that would constitute an investment. They are not regarded as formal prerequisites to what initiates an investment under the ICSID convention.[199] In essence, these economic factors presented are perceived to exclude and distinguish normal commercial transactions from investments.[200] Such commercial transactions were viewed as 'one off'[201], and for a transaction to be viewed as an investment it is required for it to be consistent and stem beyond a "one off" transaction.[202] Tribunals, were specifically concerned with the fourth prong requirement.[203] They have also argued that the fourth prong should be a consequence of an investment and not a precondition to what constitutes an investment.[204] While other tribunals have defended the fourth prong considering ICSID's preamble, which highlights a special mention of the role of private investment law and the economic development of the host state.[205] With this said, whether a certain activity will fulfill the fourth prong requirement will depend heavily on the tribunal's approach to the Salini criteria. Despite the Salini test not being unanimously accepted by tribunals as a formal determination to what constitutes an investment. It is still followed by tribunals.[206]

The first element of the Salini criteria 'contribution of money and assets', is a rather obvious requirement, as it requires the commitment of resources.[207] In the context of cryptocurrencies, this requirement is proven by means of acquisition. For instance, Cryptocurrencies are naturally exchanged with other assets, and some form of monetary contribution will be involved. This element is also satisfied based on other contributions in

[199] C. Schreuer, '*The ICSID Convention: A Commentary - A Commentary on the Convention on the Settlement of Investment Disputes between States and Nationals of Other States'*, (2nd Ed., Cambridge University Press, Cambridge, 2009) P. 130; See C. Small, *Definition of Investor and Investment in International Investment Agreements, in International Investment Law Understanding Concepts and Tracking innovations* (OECD, 2008) PP. 61, 75.
[200] C. Small (n 199) P. 64-75.
[201] *Romak. S. A (Switzerland) v. The Republic of Uzbekistan*, UNICTRAL PCA case No. AA280, Award, (26, Nov., 2009), Para. 227.
[202] Ibid, Para. 227.
[203] See for example, *L.E.S.I. S.p.A. and ASTALDI S.p.A. v. Republique Algerienne Democratique, ICSID Case No. ARB/05/3, Award,* (Jul. 12 2006), Para. 72.
[204] See, *Quiborax S.A., Non-Metallic Minerals S.A.* and *Allan Fosk Kaplun v. Plurinational State of Bolivia, ICSID Case* No. ARB/06/2, Decision on Jurisdiction (Sept. 27, 2012)
[205]A. Grabowski (n 188), P. 297.
[206] Ibid, P. 293-296.
[207] Salini v. Morocco, (n 69), Para 42.

kind, such as the supply of equipment's or personnel[208]. This constitutes the most important factor which is at the core of the concept of investment.

Considering duration, Salini held that duration of an investment needs to be of a two-year time frame[209]. However, while these elements were formulated it is important to bear in mind that the Salini case involved a public contract dispute. Furthermore, it has been debated that duration should be seen from a specific industry angle, rather than encompassing all investments to adhere to the same time period.[210] When observing transactions that involve assets such as cryptocurrencies, shorter durations should not bar investments that involve cryptocurrencies from being heard.

In terms of risk, there must be a differentiation made between such risks involved in normal commercial transactions, and that of operational or investment risk. As it is relevant to determine an investment through this scope. [211] Investment risk escribes a situation where investors are uncertain of their investment and may not be able to predict the outcome of their transactions. Investment risks encompasses the risk of government interference, which would naturally form inherent risks towards the surroundings of the investment operation.[212]Risk functions alongside duration and the expectation to generate profit. This form of risk is inherent for a foreign investor in cryptocurrencies.[213] For instance, cryptocurrencies issued through ICOs and other crypto platforms bear the risk of the token or project failing. Similarly, there is a risk of regulatory intervention within the state, whether by limiting cryptocurrencies or proceeding to a complete ban. The tribunal in Salini had recognized that risk was assumed by the investor due to potential shifts in Moroccan law, which could have resulted in an increase to the cost of labor.[214]

[208] A. Agarwal and A. Bajpai, *'Status of Cryptocurrencies under Investment Law: Not so Cryptic Anymore?*', (2019) 7 Indian J Arb L 1, PP. 14-17.
[209] *Salini v. Morocco*, (n 69), Para 42.
[210] A. Agarwal and A. Bajpai (n 208), P. 16.
[211] Ibid, P. 16.
[212] *Postova banka, a.s. and Istrokapital SE v. Hellenic Republic*, ICSID Case No. ARB/13/8, Award (Apr. 9, 2015); Agarwal & Bajpai (n 178), P. 16.
[213] A. Agarwal and A. Bajpai (n 208), PP. 13-14.
[214] Ibid, PP. 13-14.

The fourth prong of the Salini test is regarded as one of the most controversial elements 'contribution to the economic development of the host state'.[215] This element is heavily criticized, and tribunals put forward opposing views on its application. While some have regarded it as mandatory, and others have entirely disregarded its application.[216] It must be mentioned that the first three elements discussed above form important general features of an investment. For instance, under the United states Model BIT, the assumption of risk and 'commitment of capital or other resources' have been defined as characteristics that constitute an investment.[217] Nevertheless, the element of economic development is of notice when ICSID arbitration is involved. Therefore, as cryptocurrencies might satisfy the first three elements and even where they do not fulfill the fourth element, they may still constitute an investment. This will depend however on the tribunal's interpretation of the term 'economic development'. The problematic area is that defining what construes economic development is generally seen to be too broad.[218] With this, contribution does not necessarily have to be substantial. This was held in the *ad hoc* annulment committee in *Patrick Mitchell v The republic of Congo,* in which the tribunal had recognized any contract that increases the gross domestic product of a state (GDP), no matter how small the contribution is will qualify as an investment.[219] The use of cryptocurrencies in this regard may substantiate a positive impact to the economic development of a state, even if such contribution was minimal. Even though cryptocurrencies may fulfill the first three elements, the fourth element is quite difficult to assess in conclusively determining whether cryptocurrencies and their uses will satisfy the element.[220] In fact, the tribunal in *Pey* have stated that economic development is a 'consequence' of an investment and

[215] *Quiborax S.A., Non-Metallic Minerals S.A. and Allan Fosk Kaplun v. Plurinational* State of Bolivia, ICSID Case No. ARB/06/2, Decision on Jurisdiction (Sept. 27, 2012); A. Agarwal and A. Bajpai (n 208), P.15.
[216] Phoenix v *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,* Award, (Nov. 25, 2015).
[217] US Model BIT,2012, Article 1, ("Definitions").
[218] *Patrick Mitchell v. Democratic Republic of the Congo,* ICSID Case No. ARB/99/7, Extracts of Award (February, 2004).
[219]Ibid, para 33.
[220] See, E. Gaillard, '*Identity or Define? Reflections on the Evolution of the Concept of Investment in ICSID Practice', in international investment law for the 21st Century, Essays in honour of Christopher schruer,* C. Binder and others, Eds., (OUP, Oxford, 2009), P. 406-408.

should not be regarded as a mandatory component in determining the notion of investment.[221] Therefore, confirming the over leveraged complexity of determining this element, and one that should not be considered mandatory in defining an investment.

5. Cryptocurrencies and BITs

5.1 Introduction

BITs form international agreements that contain undertakings that are reciprocal between two states to protect private investments of a national of one contracting state in the other contracting state's territory.[222] It also allows parties access to neutral international forums in resolving their disputes and is upheld as important instruments in the promotion of cross border investments.[223] The dispute settlement provisions detail the accessible remedies available to the investors, in which most BITs allow access to investor-state arbitration.[224] The applicable institutional rules are usually agreed upon under this provision, and while arbitrator appointments may be dissimilar according to different institutions; however, three arbitrators will usually be appointed by the state and the investor.[225]

BITs set clear frameworks towards investment protection and state obligations. They are viewed as tools that can be altered and adapted to the future.[226] Nevertheless, for BITs to maintain their legitimacy they should not extend far beyond what states have envisioned at the time of signing.[227] Investors would therefore require transparency and reliability from the BITs, which will endow a positive attribute

[221] Victor Pey Casado and President Allende Foundation v Republic of Chile, ICSID Case No. ARB/98/2, Award, (8 May 2008), English Transl., para. 232-233.
[222] See I.Anzorena & W. Perry, '*The Rise of Bilateral Investment Treaties: Protecting Foreign Investments and Arbitration'*, IN-HOUSE DEF. Q., Summer 2010, P. 58.
[223] I. Anzorena & W. Perry (no. 222), P. 60.
[224] Ibid, P. 58.
[225] J. Chaisse & C. Bauer, *'Cybersecurity and the Protection of Digital Assets'* Vand. J Ent & Tech, L. Vol [21:3:549], P. 555.
[226] Ibid, P. 556.
[227] Susan D. Franck, *'Development and Outcomes of Investment Treaty Arbitration'*, 50 HARV. INT'L L.J. (2009), PP. 435, 442.

towards the stimulation of foreign investments.[228] In assessing potential claims in relation to cryptocurrencies, the claiming investor must first determine whether cryptocurrencies will constitute a protected investment under a BIT.[229] This is especially challenging as cryptocurrencies contain unique characteristics that creates difficulty in encompassing them underneath an existing asset class. This is evident through the different domestic regulatory approaches of cryptocurrencies, which developed a lack of international consensus towards their classification. Another complication is that cryptocurrencies are stored and operated on blockchain, which is perceived as borderless, as it is part of the internet. This brings rise to three important issues regarding potential future disputes in cryptocurrencies, and they are: 1. The use of language in defining an investment 2. Territorial links, 3. Explicit and implicit compliance requirements. As these requirements in turn will guide us to determine the existence of an investment under BITs.

5.2 The existence of investments under BITs

5.2.1 The use of language under BITs

The contracting parties to the BIT usually define what constitutes a "protected investment".[230] Nonetheless, with comprising uncertainty revolving the *ratione materiae*, tribunals refer the tools of interpretation.[231] The starting point to the tribunal's interpretation is usually by virtue of Article 31 VCLT, in interpreting the ordinary meaning of the word investment, while considering the context and purpose of the other provisions under a BIT.[232]

[228] J. Chaisse & C. Bauer, (n 225), P. 553.
[229] Ibid, P. 553.
[230] See, *Kingdom of Lesotho v. Swissbourgh Diamond Mines (Pty) Ltd*., [2017] SGHC 91 (Sing.).
[231] K. Scheffer, ' International Investment law: Text, Cases & Material', (Edward Elgar Pub, 2nd Ed., Cheltenham, 2016), P. 69.
[232] Ibid, 69; Also see Article 31 VCLT.

With this, many states have included broader definitions to what constitutes an investment under their respective BITs.[233] This movement was apparent since the 1990s, which initiated a shift from the traditional form of a more restrictive and narrow definition of investment, into a broader meaning.[234] One example of encompassing broad definitions of investment, is the German Model BIT under Article 1 in the first sentence, referring to investments as 'every kind of assets'.[235] This expansive inclusion is seen in many contemporary BITs and may extend beyond foreign direct investments.[236] It may be followed by a list of covered assets, usually non-exhaustive lists, such as intellectual property rights, concession agreements and money claims.[237] Prior to examples of such listings, the presence of the wording 'not exclusively' has been read not to constrain the definition of an investments to the list.[238] This in turn clears the intention of the contracting parties to broadly verse the definition of investment.[239] This may also be related to a narrower abstract of investment as provided in the case of *MCI v Ecuador*, where there was no mentioning of a non-exhaustive list under the definition of investment.[240] Despite this, the tribunal found the definition of investment to be broad although without demonstrating clear justifications to this conclusion.[241] further guidance to the ordinary meaning of 'every kind of asset', the United Nations Conference on Trade and Development (UNCTAD) further elaborated that the inclusion of the broad versed "every kind of asset" is intended to "embrace everything of economic value, virtually without limitation".[242] . If tribunals have

[233] U.N. Conference on Trade & Development., Unctad Series on Issues in International Investment Agreements II: Scope and Definitions, U.N Sales No. 11. II.D.9 (2011), P. 24.
[234] N. Rubins, *The Notion of 'Investment' in International Investment Arbitration*, Horn, Norbert & Michael Kroll, Stefan (ed.*), Arbitrating Foreign Investment Disputes: Procedural and Substantive Legal Aspects*, (Kluwer Law, The Hague, 2004), PP. 283–324
[235] German- Model BIT, Article 1.
[236] J. Chaisse & C. Bauer, (n 225), PP. 556-558.
[237] R. Dolzer and C. Schruer (no. 7), PP. 122-123.
[238] *Siemens A.G. v The Argentine Republic, ICSID Case No. ARB/02/8*, (Decision on Jurisdiction, 3 August 2004), Para. 137*; Kardassopoulos, Ioannis v Georgia,* ICSID Case No. ARB/05/18, Decision on Jurisdiction, 6 July 2007, Paras. 123–124.
[239] T. Niska, (n 147), P.36.
[240]*M.C.I. Power Group L.C. and New Turbine, INC. v Republic of Ecuador,* ICSID Case No. ARB/03/6, Award, 31 July 2007 , para 161; United States– Ecuador BIT, Article 1 (1) (a).
[241] Ibid, para 164.
[242] U.N. Conference on Trade & Development., (n 233), P. 24.

adopted this broad view that 'every kind of asset' will involve everything of economic value, then cryptocurrencies will surely fit in this definition as digital assets. It also may be argued that the recognition of these long-extending definitions confirms that states recognize the evolving nature of investments. With this, other wordings found under BITs may encompass cryptocurrencies. For instance, under the Bahrain- Mexico BIT, the following wordings were incorporated under the definition of investment: "real estate or other property, tangible or intangible, acquired in the expectation or used for the purpose of economic benefit or other business purposes".[243]

As cryptocurrencies form a type of digital asset, which are intangible in nature, and as they are utilized with an aim in generating 'economic benefit' through being a medium of exchange, it is therefore fair to consider cryptocurrencies being characterized under intangible property. General examples listed under BITs that can be classified in the category of digital assets are: Internet of things', data collection, emails and software. These examples also arguably form part of 'business secrets', which is covered under the investment definition in many BITs.[244] Another instance that presents the broad range use of wording is seen in the Argentina- United States BIT, with wordings such as 'inventions in all fields of human endeavor'.[245]

Even though, these broad illustrations will situate cryptocurrencies more comfortably under the definition of investment, not all countries have resorted to define investment in an expansive manner. some countries have added a few additions to 'every kind of asset' and hence conditioning it under their BITs. For instance, under the New Zealand- Chile BIT, it defined investment as: " 'investment' means any kind of asset or rights related to it provided that the investment has been made in accordance with the laws and regulations of the Contracting Party receiving it".[246] This conditioning demonstrates that foreign investors must be aware of the laws of host states, and that investment will only be covered if it is not inconsistent with policies of

[243] Bahrain- Mexico BIT, Article 1(5).
[244] U.N. Conference on Trade and Development (n 233)., P. 24; German Model- BIT, Art. 1(1)(d)–(e).
[245] Argentina- US BIT, Article 1(a).
[246] Chile- New zealand BIT, Article 1(2) United Nations Conference on Trade and Development, 'Bilateral Investment Treaties 1995:2006, Trends in Investment Rule Making, (United Nations, New York and Geneva), P. 9.

the host state as it is detailed within their respective domestic legislations.[247] As this might be detrimental for the protection of cryptocurrencies, especially in countries which have limited the use of cryptocurrencies or completely banned its use. However, laws remain unclear under the aspect of holding cryptocurrencies in possession, as there are currently no laws prohibiting the possession of cryptocurrencies.

Moreover, other languages have been used to narrow down the definition of an investment under BITs.[248] For instance, in the form of closed lists and explicit exclusions.[249] BITs stemming from 2017 have been observed to shift away from the broad inclusions of investment, as there is a rise towards more narrower definitions of investments.[250] This may induce that cryptocurrencies may be excluded within this reach.

5.2.2 Territorial link

Many BITs require a physical or territorial link between the investor and the host state. This might inspire challenges to cryptocurrencies. When such a requirement is present, it prescribes that the investment made must be in the territory of the host state. An illustration is under Article 1(1) of the United Arab Emirates- Sweden BIT:

The term "Investment" means any kind of asset, invested by an investor of one Contracting state in the territory of the other Contracting State, provided that the investment has been made in accordance with the laws and regulations of the other Contracting State. [251]

Followed by Article 1(6) describing the term territory as: The term territory means the territory of either Contracting States as well as those maritime areas, including islands, internal water, the territorial sea, the exclusive economic zone…… over

[247] U.N. Conference on Trade and Development (n 233), P. 9.
[248] U.N. Conference on Trade and Development (n 233), PP. 28-29.
[249] Ibid, PP. 28-29.
[250] Ibid, PP. 28-29
[251] United Arab Emirates- Sweden BIT, Article 1(1).

which the state concerned exercises sovereign rights in accordance with its domestic laws and international laws.[252]

The use of these wordings combined, makes it clear that it must be the limited to the geographical bounds of the contracting states. Thus, for an investment to exist it must comply with these territorial bounds. This requirement therefore should not form any complications if an investment has a physical presence such as a hotel or a production factory.[253] With this, tribunals have resorted to a narrow view that where investments are involved, there must be a physical presence.[254]

In terms of cryptocurrencies as they operate on blockchain, it will be complex to determine a link due to blockchain's transnational phenomenon. However, as cryptocurrencies are best characterized as digital assets, there has been a debate on the extraterritorial nature of digital assets between internet actors. Jonathan Bick, a lawyer and previous IBM counsel has divided digital assets into three categories.[255] The first being, a digital asset that is stored in one physical device, this device will usually take the form of a computer or a storage device.[256] It includes storing softwares and data in tangible property.[257] The second, is classified as 'access rights' and 'use rights' to internet assets that are found in computers' or other storage devices that are owned by third parties other than the digital asset owner.[258] Examples of this category are emails, and content stored in tangible property.[259] The third is classified as 'access rights' and 'use rights' correlated with internet assets, however dissimilar to the second

[252] United Arab Emirates- Sweden BIT, Article 1(6).
[253] Grand River Enters. Six Nations, Ltd. v. United States, UNCITRAL, Award, (Jan. 12, 2011), Paras. 5, 105
[254] J. Chaisse & C. Bauer, (n 225), P. 564.
[255] J. Bick, (n 152).
[256] Ibid.
[257] Ibid.
[258] Ibid.
[259] Ibid.

classification it is not stored in any tangible property.[260] A domain is one example of the third category.[261]

While linking these categories to cryptocurrencies, at first glance, it may seem that they may fit in the first category if they are 'held' in wallets on tangible devices such as a smart phone or a computer device.[262] As previously mentioned, cryptocurrencies may be held offline or online wallets. In online wallets two cryptographic keys hold cryptocurrencies known as Private and public keys.[263] The private keys verify 'the proof of ownership', which grants access to a party to the wallet.[264] In turn, the public keys functions correspondingly with the private keys and generate an address that allows the private key holder to transfer transactions.[265] The problematic aspect here is that these keys are held on blockchain which cannot be tracked to a single tangible object or location.[266] Offline wallets are typically held on hardware devices such as USBs and it may be downloaded on any device in the world, which is relatively argued that it will not be possible to establish a physical nexus to the host state's territory.[267] Hence, cryptocurrencies are not dependent on tangible devices. Cryptocurrencies may be classified best under the third category without having any physical point of presence. The third classification will be problematic as it does not fit within the traditional scope of the territory of the host state. However, a test has been developed for intangible assets that are separate from those traditional tangible assets, which might include a way for cryptocurrencies to be encompassed.

In *Abacalt*, the claimant purchased 'security entitlements to Argentinean sovereign funds'.[268] The tribunal, in this case has used different criteria for intangible assets than

[260] J. Chaisse & C. Bauer, (n 225), PP. 565-566.
[261] Ibid, PP. 566-567.
[262] J. Prieto & others 'Blockchain and Applications: Second International Congress', P. 132 (Eds., Springer Nature Switzerland AG, Cham).
[263] R. Houben & A. Snyers, (n 25), PP.16-17.
[264] J. Prieto & others, (n 262), P. 133.
[265] Ibid.
[266] Ibid.
[267] A. Agarwal and A. Bajpai (n 208), P. 18.
[268] *Abaclat & Others v. Argentine Republic, ICSID Case No. ARB/07/5,* Decision on Jurisdiction and Admissibility, (Aug. 4, 2011), (unofficial translation submitted by the claimants to arbitration), Para. 336.

for the traditional tangible assets to address territorial links and it was held that "the determination of the place of investment firstly depends on the nature of the investment".[269] The tribunal further held that "the relevant criteria should be where and/or for the benefit of whom the funds [were] ultimately used, and not the place where the funds were paid out or transferred."[270] With this, the *Abacalt* tribunal has further removed ambiguity and stated that the use of intangible assets must benefit the host state.[271] Therefore, if cryptocurrencies as digital assets were equated to financial instruments in the way that they are both intangible, while being proven beneficial to the host state, then cryptocurrencies may be subjected to the same test as financial instruments. This test may apply to cryptocurrencies if the wording of investment under BITs are termed broadly, and with mentioning lists that include assets such as intangible assets.

Nevertheless, with current existing trends that limit the notion of investment under BITs. This may indicate that states are being wary about including conventional asset classes such as cryptocurrencies or other digital assets. Together with this, other arising issues will come to light, such as the establishment of a physical connection with the host state. These instances will create arising complications for cryptocurrencies to be defined as investments. It is also to be noted that tribunals assess the facts of each case individually, and there is no mandatory requirement for a tribunal to follow approaches of past tribunals or any certainty that the test applied in *Abacalt* case[272] will apply to cryptocurrencies in the same manner. Therefore, whether cryptocurrencies will be regarded as investments will largely depend on the wording included in the BITs, with the factual context in which the investments were made.

[269] *Abaclat & Others v. Argentine Republic* (n 268), Para. 374.
[270] Ibid, Para. 374.
[271] Ibid, Para. 374.
[272] *Abaclat & Others v. Argentine Republic* (n 268).

5.2.3 Explicit and implicit compliance requirements

Non- compliance with domestic law is commonly used as a defense by respondent states against foreign investors in claims under international arbitration.[273] Various BITs embedded multiple forms of express clauses that obligates foreign investments to be made in conformity with the laws of the host state.[274] Hence, this forms a typical limitation intended by contracting states in limiting the scope of the treaty. This limitation, however, refers to the legality of the investment and not a determination to what constitutes an investment.[275]

The requirements that will only recognize a protected investment as those investments made in correlation with the law under a BIT, it can either be stated explicitly in the investment treaty such as under the definition of 'investment' or founded on the general principles of law, it may be perceived as an implicit obligation.[276] With each form bearing a different consequence. The impact of the treaty expressly covering the investment only in correlation with the host state's law is seen to be a jurisdictional pre-requisite.[277] Whereas the implicit obligation is seen for the investment to accord with the host state's law, and in line with international legal principles.[278] The provisions covering 'in accordance with the law' are commonly included under investment treaties to make sure of the legality of the investment.[279] Contracting states may minimize consent to arbitration to those investments made in conformity with their laws, and thereupon specifying characteristics of the investment. By way of the governing law, "in investment treaty arbitration will be international

[273] See *Fraport AG Frankfurt Airport Services Worldwide v. Republic of the Philippines* (Fraport I), ICSID Case No. ARB/03/25, Award, 16 August 2007 (annulled); *Fraport v Philippines II*, ICSID Case No. ARB/11/12, Award, 10 December 2014.
[274] *Inceysa Vallisoletana SL v El Salvador*, ICSID *Case No. ARB/03/26, Award, 195 (*August 2, 2006*)*, para. 246.
[275] *Salini v. Morocco,* (n 69), para. 46; T. Niska, (n 147), P. 31.
[276] R. Moloo & A. Kachaturian *'The compliance with the law requirement in international investment law' (*Fordham Law Journal, 2011) Art 1., Vol. (34), P. 5.
[277]. R. Moloo & A. Kachaturian, (n 276), P. 5.
[278] Ibid, P. 6.
[279] *Gustav F W Hamester GmbH & Co KG v. Republic of Ghana*, ICSID Case No. ARB/07/24, Award, 1 (June 18, 2010), available at < http://ita.law.uvic.ca/documents/ Hamesterv.GhanaAward.pdf >.

law, i.e., the relevant treaty and other applicable principles of international law".[280] When observing a specific investment made in 'accordance with the law', BITs containing this provision reference a *renvoi* to the national law of the host state.[281] In *Fraport v the Republic of Phillipines,* the impact of this provision was elaborated as follows:

> [t]he [bilateral investment treaty ("BIT")] is, to be sure, an international instrument, but its Articles ... effect a renvoi to national law, a mechanism which is hardly unusual in treaties .... A failure to comply with the national law to which a treaty refers will have an international legal effect.*[282]*

It was relatively viewed by the tribunal in *Tokio Tokeles v Ukraine* and it was declared that "[t] he requirement in Article 1(1) of the Ukraine-Lithuania BIT that investments be made in compliance with the laws and regulations of the host state is a common requirement in modern BITs."[283]

A BIT embedding such a clause explicitly entails that investments made must be in correlation with the national law of the host state, and therefore for any potential claims to fall within the jurisdiction of the tribunal it must accord with the law.[284] The main aim for including such a provision is to avoid granting any investment that should not be afforded protection, as such an investment will be deemed illegal.[285]

An example where a tribunal refused jurisdiction on the grounds that the investment did not accord to the host state's law is found in *Incseysa Vallislotena*.[286] In this case the tribunal interpreted the language found in the BIT by way of its *travaux*

[280] Ibid, P. 6.
[281] Ibid, P.6-7
[282] *Fraport AG Frankfurt Airport Serv. Worldwide v. Republic of the Phil*., ICSID Case No. AR1/03/25, Award, Para. 394 (Aug. 16, 2007), accessed at <'http://ita.law.uvic.ca/documents/ FraportAward.pdf'>.
[283] *Tokios Tokeles v. Ukraine*, ICSID Case No. ARB/02/18, Decision on jurisdiction, Para. 84 (Apr. 29, 2004), 20 ICSID Rev. 205.
[284] See *Fakes v. Republic of Turkey*, ICSID Case No. ARB/07/20, Award, 1 115 (July 14, 2010), *available at* http://italaw.com/documents/Fakes-v-Turkey.Award.pdf.
[285] *Salini v. Morcco,* (n 69), Para. 46.
[286] *Inceysa Vallisoletana, S.L. v. Republic of El Sal*. (n 274), Para. 195.

préparatoires and adhered that the intent of the parties under the El Salvador- Spain BIT.[287] It excluded any disputes originating from investments that are not in 'accordance with the laws of the host state'.[288] The tribunal went further to find that the claimant was involved in fraudulent conducts during a bidding in processing governmental contracts. For this reason, the tribunal recognized that the investment is outside of the scope of protection due to the illegality of the investment. Consequently, rendering the tribunal's decision to dismiss the claim.

With regards to the Inceysa case, rather than the tribunal concentrating on the compliance requirements of the investment by virtue of assessing El-Salavadorian law, the tribunal highlighted the need to focus on international law.[289] They recognized that the focus should be on the BIT between Spain and El Salvador as it is *'the valid law'* in relation to this dispute. The tribunal went further to state that the BIT is the special legislation to assess whether the investment made by the claimant in consonance with the law of El-Salvador.[290] The tribunal stated that while assessing the concerned BIT, there were no substantive rules that would indicate that Inceysa's investment was made in accordance to the host state's law.[291] However, they noted the reference to "general recognized rules and principles of international law".[292] It required the tribunal to study such principles in order to establish whether the invest made is founded on legal grounds. Thus, leading to the tribunal in rejecting its jurisdiction over the dispute. The tribunal found that the claimant had in fact breached the international principle of good faith, the international public policy of the state[293] and the prohibition of unlawful enrichment.[294] It was then reached that by breaching the general principles by fraudulent means, it accounted into a violation to the domestic laws of El- Salvador.

[287] *Inceysa Vallisoletana, S.L. v. Republic of El Sal* (n 274), para. 195.
[288] Ibid, Para. 195.
[289] Ibid, para 195.
[290] Ibid, Para 223.
[291] Ibid, Para 223.
[292] Ibid, para 224.
[293] Ibid, Para. 245, P. 76
[294] Ibid, Para. 230.

This, inevitably lead to the preclusion of the investment from protection under the BIT.[295]

The cases of Fraport and Inceysa have demonstrated that where the parties have expressly required investments to adhere to a provision that follows the law of the host state, the parties have thereupon decided that only these investments will be granted protection under a BIT.[296] Bearing this in mind, there are instances where there are issues revolving around investment protection in the scope of the treaty that cannot be generalized and can only be determined by way of the specific wordings included within the treaty.[297] As a treaty must be interpreted by its ordinary meaning and in light of its context and purpose.[298] For example, many investment treaties will only require the investment to be made in compliance with the host state law at their conclusion.[299] In other instances, some investment treaties will solely require compliance to the host state's law in governing the admission of investments.[300] Nonetheless, generally the provision 'in accordance with the law' will direct a tribunal to assess whether the investment under the treaty was made in compliance with the laws of the host state, for the tribunal to determine its jurisdiction over the dispute.[301]

Besides the involvement of 'in accordance with the law' provision in investment treaties, many BITs do not contain this provision.[302] In situations where the afore-mentioned provision is not expressly stated in a BIT, the legality of the investment is therefore not a jurisdictional pre-condition.[303] In such a situation, a tribunal will usually

[295] Ibid, Paras. 230-239.
[296] *Fraport AG Frankfurt Airport Services Worldwide v. Republic of the Philippines* (n 282); *Inceysa Vallisoletana, S.L. v. Republic of El Sal.* (n 274).
[297] Vienna Convention on the Law of Treatics, art. 31(1), May 23, 1969, 115 U.N.T.S. 331, < available at http://untreaty.un.org/ilc/texts/instruments/english/ conventions/ lI_1969.pdf >.
[298] Ibid.
[299] *Gustav F W Hamester GmbH & Co KG v. Republic of Ghana*, (n 279), Para. 124.
[300]R. Moloo & A. Kachaturian (n 276) P. 12; Fak*es v. Republic of Turk.*, ICSID Case No. ARB/07/20, Award, 115, 119 (July 14, 2010), available at <http://italaw.com/documents/FakesvTurkeyAward.pdf >.
[301] R. Moloo & A. Kachaturian (n 276), P. 1475.
[302] R. Moloo & A. Kachaturian (n 276), P. 1478.
[303] R. Moloo & A. Kachaturian (n 276), P. 1477.

confide to the general principles of law in order to assess whether a given investment will comply with a host states law.[304]

It is of use to administer the approach in the case of *Gustav F W Hamester GmbH & Co KG v. Republic of Ghana*, in which the tribunal held that an investment will not be protected under a BIT, if it has been proven to constitute a violation against 'the international principles of good faith', through means of corruption or any other deceitful conduct.[305] The tribunal went further on to say that *"[t]hese are general principles that exist independently of specific language to this effect in the Treaty".*[306] With this regard, it is to be mentioned that the concerned BIT in relation to this case, contained an express provision that necessitates the compliance with the host states law at the initiation of the investment.[307]

Furthermore, the tribunal in deciding its own jurisdiction, had reached a conclusion that the respondent failed to provide sufficient evidence in proving the fraudulent conducts committed by the claimant during the initiation of the investment.[308] For this purpose, the tribunal accepted jurisdiction over the dispute and stated that any fraudulent conducts that will occur conceding the initiation of the investment would be addressed in the merits.[309]

The tribunal in *Gustav* although confirming that there was an implicit obligation to comply with the host state's law, they did not extend the obligation to expressly comply with the general international legal principles. Nevertheless, certain aspects of such principles were addressed. By way of example, the principle of good faith. Hence, any violation of the international legal principles will automatically constitute a violation

[304] See Statute of the International Court of Justice, Art. 38(1) (c).
[305] *Gustav F W Hamester GmbH & Co KG v. Republic of Ghana* (n 279), Para. 124.
[306] Ibid, Para. 124.
[307] Ibid.
[308] *Gustav F W Hamester GmbH & Co KG v. Republic of Ghana* (n 279), Para. 132.
[309] Ibid, Para. 138.

to the principle of good faith. The breach of such transnational norms will likely constitute a violation to domestic legal orders, and therefore illegalizing the investment.

In *phoenix v the Czech republic*, the tribunal has likewise confirmed that investments made in conflict of the laws of the state should not be protected under a BIT, however unlike *Gustav*[310], the case did not address illegality by international legal principles.[311] However, the tribunal considered the compliance requirement to be "implicit even when not expressly stated in the relevant BIT".[312] It was additionally highlighted that non-compliance with the host state's law is contrary to the international protection granted to investments by way of the ICSID convention.[313] Despite this, legality issues in investments may not always be clear during the jurisdiction phase, tribunals may address legality in the merits phase of the dispute, as is in this case. This was also the case in *Plama v Bulgaria*, in which misrepresentation as a legality issue was addressed in and in turn the investment was declared illegal.[314]

After analyzing the legality considerations as presented above, it is to be noted that tribunals under ICSID will generally view such requirements as an explicit obligation under the BIT or as an implicit obligation. Explicit obligations will pertain provisions that include wordings such as 'in accordance with the law', and implicit obligations will be similarly mandatory and is viewed to extend beyond the specific wording of the BIT.[315] In both instances tribunals will preclude an investment from its protection as granted under a BIT. With this said, it is also established above that the compliance requirements are not only restrained to the investment itself, but also towards the legality of the investors' actions as demonstrated in the cases of *Plama* and *Phoenix*.[316] These requirements will be destined factors in determining whether cryptocurrencies

[310] *Gustav F W Hamester GmbH & Co KG v. Republic of Ghana* (n 279), Para. 133.
[311] *Phoenix Action. v. Czech Republic* (n 216) Para 101.
[312] Ibid, Para 101.
[313] Ibid, Para 101.
[314] *Plama Consortium Limited v Republic of Bulgaria*, ICSID Case No. ARB/03/24, Decision on Jurisdiction, 8 February 2005.
[315] See, *Plama Consortium Limited v Republic of Bulgaria* (n 314); *Phoenix Action. v. Czech Republic* (n 216).
[316] Ibid.

will be provided protection under BITs. As such, access to arbitration is a crucial factor in protecting an investment, and with illegal investments of course no such protection will therefore be granted. In addition, these requirements will be destined factors in deciding whether a tribunal maintains competence over the jurisdiction of the dispute and in finding the admissibility requirements of the investment.

Moreover, in reference to cryptocurrencies and as previously illustrated under *chapter 3*, only the use of cryptocurrencies is addressed under national legal orders.[317] However, merely holding cryptocurrencies in possession are not addressed under any national laws. The use of cryptocurrencies is divided under three categories: 1. Banning the use, 2. Restricting the use and 3. Accepting the use. With this, the compliance requirements will form a clear barrier to the protection of cryptocurrencies especially where the use of cryptocurrencies are banned. As such, in this situation cryptocurrencies will be precluded from protection under the treaty due to its to its illegality. Nevertheless, where the use of cryptocurrencies is banned but not the possession of cryptocurrencies, it may be argued that the accumulation of cryptocurrencies is not necessarily excluded from protection. For instance, certain activities such as ICOs and crypto mining are conducted in order to accumulate cryptocurrencies. In ICOs cryptocurrencies will be accumulated as fundraising methods, and in crypto mining as rewards. Therefore, if these activities are not banned within the territory of the host state, cryptocurrencies may be granted protection under investment treaties and international investment law under these circumstances. However, given the fact that they are somehow defined as an investment under the treaty, by for instance, incorporating broad terminologies that will encompass cryptocurrencies under the BIT. In relation to restricting the use of cryptocurrencies, the validity of the investment will depend on the way cryptocurrencies are used (i.e the activities or conducts which prohibits the use of cryptocurrencies). With regards to the acceptance of the use of cryptocurrencies, it should not prevent the inclusion of cryptocurrencies from protection under BITs. Unless, of course, investments in cryptocurrencies were used and conducted in a way that will breach the general

[317] See generally, *Chapter 3.*

principles of law and inevitably a breach of the international public policy of the state at hand.[318] The protection of cryptocurrencies will thereafter depend on the national regulations of states.

5.2.4 Exceptions to the Compliance Requirement

It is now understandable that compliance requirements form an integral for investment protection. For this reason, the extent of illegality regardless of its insignificance will need to be addressed. This is in order to establish whether minor errors will impact the protection of an investment and in turn might lead arbitral tribunals to preclude protection in relation the investment. This was answered in *Tokio Tokeles v Ukraine*, the responded contended against jurisdiction under this case as it was alleged that the claimant submitted 'defective documents' to the respondent regarding the investment.[319] The tribunal in addressing this alleged claim stated that even though the tribunal will confirm the respondent's contentions in relation to the defective documents, excluding an investment on the grounds of minor errors is contrary to the object and purpose of the treaty.[320] Accordingly, the tribunal affirmed that the investment was made in accordance with the national laws of Ukraine. This affirmation was based on the tribunal's interpretation of Article 31 VCLT and declared that *"the object and purpose of the BIT is to provide broad protection for investors and their investments".*[321] As a result, the tribunal found that excluding jurisdiction due to minor errors will be inappropriate, even while facing a requirement that obliges an investment to correspond with the host state's law.[322]

On the same note, the tribunal in *Fraport* addressed the issue on minor errors. The issue in focus was whether all forms of illegality will ultimately lead the investment being left outside of the protective scope of the treaty.[323] In addressing this issue, the

[318] *Gustav F W Hamester GmbH & Co KG v. Republic of Ghana* (n 279), Para. 124.
[319] *Tokios Tokeles v. Ukraine,* (n 283) Paras. 83, 205.
[320] *Tokios Tokeles v. Ukraine* (n 283), Para. 85.
[321] Ibid, Para. 86.
[322] Ibid, Para.86.
[323] *Fraport AG Frankfurt Airport Serv. Worldwide v. Republic of the Phil*., (n 282).

tribunal utilized a standard based on good faith, and concurred that in certain circumstances the law of the host state may not be completely clear and 'mistakes may be made in good faith'.[324] The tribunal presented a few illustrations that includes: the failure of legal counsel to flag an issue while conducting legal due diligence, and an 'offending arrangement' that was not centered in relation to the profitability of an investment, as illustrations of what constitutes errors made good faith.[325]

The approach in *Fraport* was followed by the tribunal in *Desert Line v Yemen* and asserted the standard of good faith in evaluating the legality of an investment.[326] In this case, it was argued by the respondent that the claimant had neglected to attain a certificate from the Yemeni government for its investment, and that the investment due to this reason fell outside the protective realm of the treaty.[327] The tribunal, in turn, refused this argument and made clear that the certificate is not essential in bringing the investment under the scope of protection.[328] The tribunal arrived at the conclusion that the offending incident did not impact the profitability of the investment.[329] As indicated by the *Fraport* tribunal, this means that if the investment were to be made in consonance with the law, the investment would still be profitable.

Even though the exceptions to the compliance requirements might present some form of flexibility and will not necessarily exclude an investment its protection under the treaty. It is worth noting, however, that foreign investors seeking to contribute investments in the form of cryptocurrencies in nations abroad must be fully aware of the laws of these foreign nations. In addition to being aware of the legal protection granted to their investments under international investment law and by way of their investment treaties. As this awareness is vital for the protection of the investment, specifically when a foreign investor is dealing with less stable assets such as

[324] Ibid, Para. 397.
[325] Ibid, Para 396.
[326] *Desert Line Projects LLC v. Republic of Yemen*, ICSID Case No. ARB/05/17, Award, 1 (Feb. 6, 2008), Para 116.
[327] Ibid, para 116.
[328] Ibid, Para. 116.
[329] Ibid, Para, 116.

cryptocurrencies. Following the words of the tribunal in *continental casualty company v Argentina*, *"reasonable expectations presuppose reasonable investors*". [330]It is fair to state, that investors that will securely protect their investments in cryptocurrencies, will be through benefiting from the legal frameworks of states that accept the use of cryptocurrencies. Together with, the protection conferred by international investment law and by means of BITs to foreign investments. Accordingly, detailing the legal protections granted to such investments.

6. Conclusion

There are various challenges in determining whether cryptocurrencies will be protected under current bilateral investment treaties. Given the growth of cryptocurrencies, there are many legal questions that will undoubtedly be asked, and one in which will be regarding the protection of crypto assets under bilateral investment treaties. However, in avoiding future uncertainty, in relation to the protection of cryptocurrencies, treaty language must be clear and include terms such as cryptocurrencies, blockchain, digital assets and crypto assets under the definition of an investment. It will therefore be particularly important to clarify the definition of investment as this will be a vital factor in protecting cryptocurrencies under BITs. Nevertheless, the current broad-based definition of assets may leeway to a more fitting inclusion of cryptocurrencies under the definition of an investment.

Even with the possibility of placing cryptocurrencies under broad based definitions of investments, there are also treaties that limit the scope of an investment which will be unfavorable for cryptocurrencies. Another difficulty that may be faced in future investments in cryptocurrencies, is establishing a link between the assets and host states. As some contracting states compel investments to be made in their territory.[331] As cryptocurrencies are operated on borderless technology, it will be hard to establish that an investment in cryptocurrencies is in fact made in the host state.

[330] *Continental Casualty Company v. Argentina*, ICSID case no. ARB/03/9, Award, 2008, Para 258.
[331] See, United Arab Emirates- Sweden BIT, Article 1(1).

In terms of the legality requirements under BITs, the general approach is that investors will need to accord with the laws of the host state. Even when there is no explicit requirement found in a BIT. Tribunals have adopted the view that the investment must correlate with the laws of the host state.[332] Hence, investors that will partake in future foreign investments in cryptocurrencies must be vigilant towards the compliance requirements of such investments. With this, as it has been established in this paper that the general overview of cryptocurrencies is divided into three parts which bans the use of cryptocurrencies, restricts the use and the acceptance of the use of cryptocurrencies. This asserts the international confusion in relation to the regulation of cryptocurrencies.

While considering these three categories, the most problematic of course is with regards to the ban on the use of cryptocurrencies. As this will likely disallow a cryptocurrency from being a protected investment under a BIT. Nevertheless, in situations where activities in relation to cryptocurrencies are not banned for the purposes of accumulating cryptocurrencies, such accumulation should not create any violations to the national laws of host states. As no national law currently illegalizes the mere possession of cryptocurrencies. National laws that accept the use of cryptocurrencies, should not affect the legality of investments in cryptocurrencies as the use is not deemed to be illegal. Bearing in mind the fact that the cryptocurrencies will be included under the definition of investment. The protection of cryptocurrencies will mainly depend on the specific wordings entailed under a particular BIT, coupled with legality requirements and the approaches taken by arbitral tribunals.

With the above, it is not possible at the current time to put forward a definitive conclusion regarding cryptocurrencies as being protected investments. Although the uses of cryptocurrencies have proven to progressively attain the interest of the public, and in some instances have proven beneficial to governmental entities.[333] Cryptocurrencies are yet to excel, and with more societies opening the doors to the

[332] See, *Phoenix Action. v. Czech Republic* (n 216); *Gustav F W Hamester GmbH & Co KG v. Republic of Ghana,* (n 279).
[333] European Investment Bank, (n 141).

acceptance of cryptocurrencies, the more likely investments in cryptocurrencies will be protected.

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