

THE CRYPTO WORLD: GLOBAL DEVELOPMENT AND INTERNATIONAL

LEGAL IMPLICATIONS

---

A Thesis

presented to

the Faculty of Law and Political Science

at Notre Dame University-Louaize

---

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts in International Affairs and Diplomacy – International Law

---

by

ANTHONY NAKHLE

NOVEMBRE 2022

© COPYRIGHT

By

Anthony Elias Nakhle

2022

All Rights Reserved

II

Notre Dame University - Louaize  
Faculty of Law and Political Science  
Department of Government and International Relations

We hereby approve the thesis of

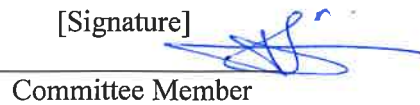
Anthony Elias Nakhle

Candidate for the degree of Master of Arts in International Affairs & Diplomacy – International  
Law

Dr. Chadi El-Hajal  
Dr. Full Name

[Signature]   
Supervisor, Chair

Dr. Samy Ghoreb  
Dr. Full Name

[Signature]   
Committee Member

### *Acknowledgment*

I would like to express my gratitude to my professors and faculty members who have accompanied me throughout my educational path at Notre Dame University to date. Particularly, I would like to express my appreciation to Dr. Chady Hajal who has provided me with all the necessary guidance and support to achieve my objectives from 2017 onwards, culminating in his close and attentive supervision and oversight of this thesis, for which I am thankful.

## Outline

**Research Question:** How have the limitations of international law contributed to the reliance on cryptocurrencies and affiliated developments, ever since 2009, for illicit activities?

### Introduction.

#### *Chapter 1: Empirical Overview*

- I- Literature Review.
- II- Methodology
  - A- Theory.
  - B- Research Methods.
  - C- Projected Limitations.

#### *Chapter 2: Understanding Crypto*

Crypto as an IR Development and Complexity.

- A- Understanding Cryptocurrencies & Affiliated Developments.
- B- The Global Implications of Crypto.
  - i. Economic Implications.
  - ii. Political Implications.
  - iii. Environmental Implications.

#### *Chapter 3: Assessing International Law*

International Law: Ill-Conceived or Ineffective?

- A- The Sources of International Law.
- B- The Setbacks to International Law.
  - i. International Lawmaking Process.
  - ii. Unanimous Application and Commitment by Nation-States.
  - iii. Keeping up with Global Developments and Changes in International Relations.

#### *Chapter 4: International Legal Dysfunction*

Crypto as a Facilitator of International Legal Violations.

- A- Use of Crypto in Illicit Activities.
- B- Where is Global Governance Lacking with regard to Crypto?
- C- Adopting a Different Approach: Developing International Law to Constrain Crypto
- D- Projected Obstacles to Reforming International Law to Constrain Crypto.

### Conclusion

### References

## **Abstract**

The launch of Bitcoin, the first cryptocurrency, in 2009, altered the traditional perspective that people held with regard to of financial transactions. Over the years, hundreds of cryptocurrencies have emerged and the realm of crypto (digital) assets extended its impact to global affairs whereas it affects domestic and international economics, politics, and the environment. Given the nature and potential of this technology, it has left a positive mark as well as negative stains due to lack of regulation, falling prey to perversion and abuse with malicious intent to commit illicit activity. Consequently, calls for containment and regulation have been raised. However, this has proven to be difficult whereas attempts at localized regulation have proven to be inefficient and regulation through international law remains difficult. This thesis showcases the way in which the limitations of international law have contributed to the reliance on cryptocurrencies and affiliated activities to perpetrate illicit activity.

**Key Words:** *Cryptocurrencies; Global Implications; Legislation; Regulation; Illicit Activity; Decentralization; Anonymity.*

# **The Crypto World: Global Development and International Legal Implications**

## **Introduction**

As capitalism became the governing economic ideology within the international system, different organizations have been established in order to accompany and maintain the growth of the global economy whether by playing a currency regulating role, to provide assistance for nations who are going through crisis and/or are unable of competing within the globalized system. Therefore, currency has rooted itself at the core of every economic transaction. As a result of its sheer impact, laws of domestic and international nature have been enacted over time and upon the observation of global developments in order to curb the use of currency for criminal activity that can jeopardize the functional processes of the international system of governance.

The central role of currency in the given system makes its misuse a threat to international development, international economic stability, as well as international security. Money can be used for illicit purposes such as money laundering, tax evasion, Ponzi schemes, leading all the way to sponsoring and funding international terrorism. This has led the international community to instate international laws, along with symbiotic domestic laws, in order to prevent the former from occurring and limiting the detrimental use of currency by centralizing governance of currency and increasing monitoring capabilities. The spoils of this approach were short-lived whereas, in 2009, Bitcoin, the first cryptocurrency came to light. A cryptocurrency, by definition, is a virtual/digital currency secured by a decentralized network, which makes it impossible to counterfeit. In addition, one of the key attractive features of a cryptocurrency such as Bitcoin rests in the fact that no central authority holds any jurisdiction on crypto-

affiliated transactions, rendering this form of currency one that is free of governmental interference and is ultimately untraceable.

Over the past decade, cryptocurrencies have increased in number as well as saliency whereas a massive amount of people are currently invested in trading and holding cryptocurrencies for massive profits and to benefit from their affiliated developments such as Non-Fungible Tokens (NFTs). A distinguishable issue with regard to cryptocurrencies rests in their untraceable trait, which led to an increased reliance on digital currencies to fulfil illicit activities using crypto transactions as observed on dark-web platforms such as the Silk Road, a website that allows users to purchase narcotics using cryptocurrencies. Cryptocurrencies are not recognized by nations, except for El Salvador as of 2021, as legal tender and thus no international laws have been devised to counter their use for illicit activities. This thesis will seek to showcase how the limitations of international law contributed to the reliance on cryptocurrencies and affiliated developments, ever since 2009, for illicit activities.



## *Chapter 1: Empirical Overview*

### **I- Literature Review**

The crypto world and its affiliated developments is one that the majority of the world holds little to no information about. However, it is not an untapped field with regard to academic study and a solid foundation of studies and research is available which address crypto from a variety of perspectives, which will prove to be of utmost importance in the quest to identify literary understanding of crypto developments as those grow in saliency. In addition, as this thesis seeks to establish a correlation between the increased reliance on crypto developments and international law, most notably its limitations, tapping into the abundant literature on international law will complement the literature review and allow us to observe a holistic relationship between both elements of study.

This literature review will be rooted in the analysis of previously written academic pieces and the results that those have conferred. Furthermore, tending to the thematic directions that were employed by academics and experts with regard to the crypto and affiliated developments such as their creation, and reflection on day-to-day politico-economic and realities, and legal implications is essential to build this paper on a strong analytical basis. Finally yet importantly, this literature review will aim at highlighting the disruptive nature of crypto and affiliated developments with regard to the instated global system of governance, most notably international law.

The literature that will be adopted will allow us to consolidate the thematic pillars in question and thus pieces will be opted for according to their approach towards the following themes: Crypto as an Alternative to Traditional Financial Transactions; The Limitations of International Law; and Cryptocurrencies and Illicit Activities.

*Crypto as an Alternative to Traditional Financial Transactions:*

Financial Transactions have for long operated according to the international conventions and agreements among nation states, those that have put fiat currencies and currencies that are backed by commodities such as gold at the heart of economic processes. Nonetheless, the instated monetary system has been subject to alterations and is currently in transition as a result of global developments. The former are a combination of financial globalization, greater economic integration, and in the case of our study the rise of crypto currencies. This has led experts to question whether crypto can assume the role of alternative to traditional means of financial transactions.

Bitcoin was introduced in 2009 but held no significant value and was undermined to ever flourish. However, shortly after in 2011, the discussion shifted towards its potential to disrupt traditional economic systems as it held innovative advantages and attributes that appeal to users. A detailed breakdown was carried out by Reuben Grinberg in *Bitcoin: An Innovative Alternative Digital Currency* (2011) published in the *Hasting Science & Technology Law Journal*. In his study, Grinberg undertakes the analysis of Bitcoin, the first cryptocurrency, and its different projected repercussions, one of which is its capacity to present itself as an alternative to financial transaction models adopted. The author highlights two essential traits of Bitcoin, that have inspired other cryptocurrencies along the line, which grant it an advantage over fiat currencies. The first of those is the limited supply which offer it a self-regulating capacity to avert inflation and/or “tanking” the price of bitcoin through the process of “printing currency” (Grinberg, 2011). Additionally, Bitcoin, as other cryptocurrencies do today, operates on a blockchain of nodes which are a result of hundreds of thousands of peer-to-peer networks which

constitutes a massive advantage in terms of security as the blockchain is impenetrable and is immune to central attack, contrary to centralized financial service providers such as banks (Grinberg, 2011).

This theme has also been addressed in a multitude of literature such as *The Role of Crypto-Currencies in the Development of the Global Currency System* (2018). This piece undertakes the analysis of cryptocurrencies' capacity to assume to functions traditional fiat currencies within the international monetary system. First off, cryptocurrencies hold significant advantage over international currencies as they can act as a universal measure of value (Efremenko et al., 2018), and are not "credit obligation of any state" hence they operate according to a unified equivalent of value. Additionally, the authors of the piece in question have addressed cross-border financial transactions and have found that cryptocurrencies can fulfill this function in a more efficient manner as those are not bound by time and space.

Such observations have led the discussion towards remodeling traditional financial transactional architecture into a decentralized financial model which revolves around cryptoanarchist principles as observed in Usman Chohan's *Decentralized finance (DeFi): An Emergent Alternative Financial Architecture* (2021). Per the author, Decentralized Finance or DeFi for short is an experimental practice of financial transactions which unbinds the architecture of the monetary system from their centralized anchors that assume the role of intermediaries such as banks, global market exchanges, and others. Cryptocurrencies hence can present themselves as alternatives to traditional financial transactions models, a more efficient alternative whereas intermediaries are eliminated and are substituted by blockchain technology (Chohan, 2021). The former

may be seen as an unsustainable innovation, however, the author assures the reader that this has been done and is ongoing for almost a decade now using the Ethereum (cryptocurrency) platform. Assuming the role of alternative for traditional financial transactional mediums requires attractiveness to users who would be willing to use cryptocurrencies, which is an unknown development to many, rather than the instated mechanisms that have been tested and adopted. The former is done through the attractive feature of financial freedom that cryptocurrencies, and inherently DeFi, offer to users whereas it fulfills a great part of key financial transactions “without the intrusive superimposition of traditional financial intermediary institutions” (Chohan, 2021). In an era marked by governmental meddling, especially in financial and cyber sectors, individuals seeking autonomy can do so with the use of cryptocurrencies and in a more efficient manner, which ultimately allows the reader to form a preliminary understanding of the underlying reasons beneath state rejection of cryptocurrencies.

The last piece of literature that will be adopted for this thematic pillar is *Can Bitcoin Become a Viable Alternative to Fiat Currencies [...] by Vavrinec Cermak*, published in 2017. From this piece will be extracted the analogy of Bitcoin’s, and ultimately other currencies’, market valuation on the basis of Keynesian Economics, the model upon which global central economies function. The former reinforces our theme in which cryptocurrencies are capable of assuming the role of traditional fiat currencies. As per the author, one of the principal arguments held by antagonist groups to cryptocurrencies is the volatility of their price, which is nonetheless one rooted in human Keynesian economic behavior of speculative investment and a self-regulating ecosystem (Cermak, 2017).

It is apparent that cryptocurrencies and affiliated development can ultimately fulfill the function of traditional currencies and transactional mediums, in a more efficient manner. The purpose of this validation is to showcase the need to understand the growing saliency of crypto from an economic perspective and ultimately the need to address the legal discrepancies underlying the functioning of a model of economic transactions that is projected to replace traditional systems.

*The Limitations of International Law:*

International Law has been around ever since the 19<sup>th</sup> century and has since developed itself regularly, building upon the observation of changes across the globe with regard to matters that affect nations and individuals, in addition to inspiration from domestic law especially when it comes to criminal law. The sources that ultimately constitute international law are diverse and meant to keep it up to date, however criticism with regard to its efficiency are rampant as a result of limitations.

With regard to our study spectrum, one of the important limitation with regard to international law is compliance and cooperation among nations in unilateral application of international law. In *International Law and State Behavior: Commitment and Compliance in International Monetary Affairs* (2000), Beth Simmons assesses the patterns of compliance between nations and the cooperation found when it comes to international monetary affairs. The conclusions drawn by the author highlight the fact that nation-states will only comply with international law if their counterparts are willing to do so as well (Simmons, 2000). Hence, compliance to international law, one of the greatest limitations, is bound by national interests and is hostage to the political variations that can occur at any given moment which hinder the capacity to build momentum when

it comes to the unilateral application of international law, ultimately enabling the proliferation of violations or lack of development of international law.

Another limitation of international law is the fact that it must be traced back to certain sources according to custom and practice ever since the first instance of discussion of an international set of laws. As international law could no longer keep up with the growing complexity of developments in the realm of global affairs, academic circles have pivoted towards addressing the need to revisit the acceptable sources of international law. The former is observed in Harlan Grant Cohen's piece *Finding International Law: Rethinking the Doctrine of Sources* (2006) whereas he addresses the fact that changes in the international system have created pressure in enacting and implementing international law. As per the author, as a result of patterns of compliance and the nature of sources, efficacy in international legal implementation may only be feasible by transitioning from traditional sources into a source based on *opinio juris* (an opinion of law or necessity). This would ultimately lead to a better understanding of what should be treated as law and pursued accordingly and grant international law a stronger foundation (Cohen, 2006) whilst maintaining relevance.

The inability of international law to keep up with complexities and developments in the realm of global affairs renders its foundations weak and makes it more difficult to enforce. A development as disruptive in nature as cryptocurrencies and its affiliated developments makes traditional enforcement mechanisms unsustainable ones. In *Cryptocurrency Public Policy Analysis* (2014), Joseph Walton provides a commentary on the limitations of international law with regard to complex global developments, limitations that the malicious use of cryptocurrencies and affiliated developments

exploits. As per Walton (2014), international law must be revised to adapt to the changes that cryptocurrencies entail when it comes to violations and greater symbiosis among the national and international aspect of law must be instated for greater efficiency. The author builds upon the successful cooperation between U.S. and international legal enforcement mechanisms in shutting down the Silk Road as grounds for greater development of international law and an initiative to hamper the growing limitations (Walton, 2014). The failure of international law to adapt to growing changes in the international system of governance is in correlation with the lawmaking process whereas international law is rooted in shared consent among nations, whether through practice or through treaty agreements. The former was addressed by Sara De Vido (2020) in *Virtual Currencies: New Challenges to the Right to Privacy?* whereas the scholar assesses the facilitations that the setbacks of international law offer cryptocurrencies users and abusers. The theme of international legal incapacity to keep up with the pace of technological development is a recurrent one among scholars and has been reiterated in the aforementioned study by attributing this issue to the lengthy lawmaking process which renders a law “basically old as soon as it is adopted” (De Vido, 2020). Moreover, the author goes beyond in her analysis whereas suggestions are offered which can enhance the efficacy of international law when it comes to international law by stating that flexibility is required to integrate technical experts in the lawmaking process. Additionally, the second consideration that hampers efficacy rests in the choice between hard and soft law when it comes to addressing cryptocurrencies (De Vido, 2020).

The last aspect of international legal limitations that will be undertaken for this part of the literature review is the concept of criminal liability and its application to

cryptocurrencies. By definition, liability makes an individual prone to be held legally responsible for committing a crime. Difficulties have surfaced with the application of this traditional concept to crypto transactions for two main reasons. The first of those rests in the anonymous trait of crypto whereas no transaction can be traced to an individual, and the second rests in an international legal limitation which is one of the sources of international criminal law, being municipal law. The former constitutes a limitation for international law in addressing crypto due to the fact that disparities are observed among domestic laws across nations over the matter at hand, which makes the task of finding international consensus a rather difficult one. In *Criminal Liability for Cryptocurrency Transactions: Global Experience* (2021), a cohort of academics embarked on a comparative study of international legal purview of cryptocurrencies and its transactions in order to assess the applicability of criminal liability. The study revealed that cryptocurrencies are barely given attention, if any, within municipal legal circles across the globe which has ultimately made the task of establishing criminal liability over suspicious transactions whether in an international setting or within territorial borders (Cherniei et al, 2021). Cryptocurrencies have been dubbed as *A Challenge to Legal System* (Jafari et al, 2018) as a result of their nature to which nations have not been capable of addressing. Thus, a deadlock in municipal lawmaking on a global scale evidently translates into a deadlock at the scale of international law.

This section of the literature review has thus revealed that international law is not rid of obstacles that hinder its efficiency and efficacy. Those obstacles are traced back to the nature of the international system of governance, which has defined the sources of international law and its lawmaking process as inherently difficult to pursue on a regular



basis. Cryptocurrencies have constituted a major development that has disrupted traditional economic processes and transactional models as repeatedly highlighted thus far. Crypto has posed a hurdle to international law which has been unable of addressing it, whether as a result of international unwillingness for various reasons that would be observed throughout the paper, or as a result of inability to do so in a timely manner.

*Cryptocurrencies and Illicit Activities:*

Addressing the literary foundation of the focal point of our thesis is essential, whereas the topic of cryptocurrencies and illicit activities is abundantly is researched and discussed by scholars and policy experts extensively ever since it began to unfold and gain saliency. It is important to connote that the conclusions and arguments held by scholars are factual and not mere speculations rooted in antagonism to what they don't understand, which makes them valid in the compilation of this literature review for the topic at hand.

Criminal activity is as old as humanity, however, a number of illicit activities tend to develop or become more feasible with impunity as a result of global developments such as money laundering. In *Cryptocurrency or Usury? Crime and Alternative Money Laundering Techniques* (2019), Raffaello Barone and Donato Masciandaro have addressed the rise of cryptocurrencies as suitable for money laundering purposes as a result of their decentralized and anonymous characteristics. The study in question reveals that almost one quarter of bitcoin transactional activity is associated with illegal activity, laying an estimate that over 76 billion U.S.D revenues associated with illicit activity involve the use of cryptocurrency to circumvent liability (Barone & Masciandaro, 2019). The piece in question is significant whereas it offers a comparative analysis between

traditional money laundering techniques such as usury, and the use of cryptocurrencies for the same purpose. The comparison carried out reveals that cryptocurrencies eliminate exposure to potential risks whereas the amount of individuals involved in the laundering process can be limited to only the criminal or the criminal organization, whilst maintaining anonymity, and in most cases reaping additional profits as a result of increase in the price of cryptocurrencies (Barone & Masciandaro, 2019). A study published in the Journal of Money Laundering Control in 2019 by the title of *The Use of Cryptocurrencies in the Money Laundering Process* has confirmed the previously iterated claims. Findings show that cryptocurrencies are attractive to criminal networks due to the anonymity entailed and as no middle-man/intermediary such as traditional banking institutions is required to fulfill transactions (Albrecht et al, 2019).

Cryptocurrencies and affiliated developments are associated with a multiplicity of white-collar crimes as observed with the case of money laundering. Another case is that of tax evasion whereas crypto is unregulated and unrecognized by governments, which has attracted individuals to evade taxation and maximize their profits (Houben & Snyers, 2018). In a 2013 study conducted by Omri Marian titled *Are Cryptocurrencies 'Super' Tax Havens?*, cryptocurrencies are posed as alternatives to traditional tax havens which are more efficient and inherently more attractive to individuals who seek to avert taxation. The author presents two approaches in the study: on the one hand, traditional tax evasion mechanisms such offshore bank accounts are painted as no longer entirely safe as a result of increased international pressure to hand over information regarding account holders and the accumulation of earnings (Marian, 2013). Additionally, the author compares cryptocurrencies to traditional tax havens whereas it is apparent that both share

similar characteristics, yet cryptocurrencies are more refined as they do not require intermediaries to fulfill the operation (Marian, 2013). Whereas some cryptocurrencies are considered as securities by regulating entities and thus are taxable, the greatest majority are not, and are anonymous in nature which constitute a major challenge for taxing authorities as long as the transactions remain within the realm of cryptocurrencies (Noked, 2018).

It is becoming increasingly apparent that cryptocurrencies facilitate the perpetration of white-collar crimes. The former are also known as victimless crimes which have led pro-crypto circles to undermine their relation with criminal activity, especially hardline liberals and anarchic fanatics who reject governmental intervention in personal affairs. Nonetheless, cryptocurrencies and criminal activity go far beyond victimless crimes and is intertwined in trafficking, arms and narcotics to a great extent, in addition to being a gateway to funding terrorism and holding assets for terrorist organizations.

Human beings have a tendency to pervert every innovation and will turn it into a tool to pursue illegal activities that affect individuals such as trafficking in arms and narcotics. In a 2015 study of cryptocurrencies titled *Is Bitcoin Rat Poison: Cryptocurrency, Crime, and Counterfeiting (CCC)*, Eric Engle offers an analysis of cryptocurrencies by focusing on Bitcoin. In his piece, the author highlights that goods and services may be bought and sold in return for crypto payments, a process that has been increasingly attracting activity (Engle, 2015). However, this has attracted malicious providers of goods and services whereas traffickers of narcotics, as well as illegal firearms, have taken advantage of anonymous cyber-services to establish marketplaces

where they can advertise their illegal products and receive untraceable payments through cryptocurrencies (Engle, 2015). Such realities constitute some of the most prominent arguments against cryptocurrencies and affiliated developments.

Lastly, one of the most important aspects of crypto use within the realm of criminal activity is its contribution to the proliferation and sustainability of terrorist activity and organizations. A great number of academics concerned with security studies and international terrorism has addressed this, and the majority confer similar conclusions regarding the association in question. This is observed in the 2019 study titled *A Conceptual Study on the Emergence of Cryptocurrency Economy and Its Nexus with Terrorism Financing*. The study in question has revealed that terrorist organizations have adopted cryptocurrencies to fund their international nefarious activities in order to circumvent potential obstacles to transactions and make use of the untraceable trait of cryptocurrencies (Majumder et al, 2019). What makes this piece of literature stand out is the correlation it establishes between terrorist occurrences and bitcoin transaction/circulation prior to the event in question.

The themes in question, and the subsequent literature presented and their arguments, will constitute the basis for the assessment of cryptocurrencies as a tool for illicit activity resulting from the limitations of international law. What this literature review has revealed is that international law is not suited to address a development of massive scale such as cryptocurrencies and requires a lot of reforms to its drivers, whilst also showing that the lack of development in international law is heavily attributed to the state centric system of governance. Moreover, the literature analyzed has proved that cryptocurrencies, arguably over the next decade and upon further refining, is capable of

replacing traditional transactional mechanism and has been doing so in a variety of settings. Finally, the literature presented shows that cryptocurrencies and their relationship with illicit activity have for long been a topic of saliency in academic and security circles. It is of the essence to note that the literature used as a basis for this research effort and that will be used throughout the operationalization can be traced back to different timestamps and eras which is essential for diversification and to showcase those developments with regard to this topic have been linear and follow the same path projected, only alternating in intensity according to variables.

## II- Methodology:

In our quest to validate our research question, “*How have the limitations of international law contributed to the reliance on cryptocurrencies, ever since 2009, for illicit activities?*”, the methodology adopted constitutes an integral part due to relatively complicated nature of the focal point of research, that being crypto and affiliated developments. The aforementioned complication is rooted in the fact that crypto operates in a grey area whereas it has evolved into an unregulated ecosystem of economic transactions. It is well known that humanity does not adhere well to what it does not fully grasp, and often paints such developments as antagonistic to tradition. Crypto’s disruptive nature to the globalized system of governance, most notably legal and economic systems, has attributed to the development in question additional complication found in popular resistance, whether by the international community or by individuals.

The quest to establish the correlation between the limitations of international law and the reliance on crypto developments to carry out illicit activities has enabled us to diversify our approach to the methodological basis, which will be addressed with specificity in a forthcoming part of this chapter.

### A- Theory:

Identifying crypto and illicit activity as an area of research within the field of international law was only feasible following lengthy analysis of theories regarding international law that stray from the traditional approaches rooted in themes such as state sovereignty and schools of thought adopted in fields of International Relations like realism or constructivism. The process of identification ultimately led to the Jean d’Aspremont’s *Softness in International Law: A Self-Serving Quest for New Legal*

*Materials* (2008) and its adoption as the theory of reference that contributed to the formulation of the research question and that will ultimately guide the compilation of this thesis.

Jean d'Aspremont's theory on the softness of international law addresses the limitations of the traditional outlook towards international legal formulation and application whereas he argues that softness has become inherent due to growing complexity in international relations and in the globalized system. The former ultimately led the processes of law-making, enforcement, as well as international legal arguments, to become inefficient due to their rigid nature and the complexity found with regard to alteration as those have grown into customary practices whereas change requires international consensus which will prove difficult to find as a result of a multitude of variables. Per the author's words "softness commonly rests on the presupposition that the binary nature of law is ill suited to accommodate the growing complexity of contemporary international relations, and that complementary normative instruments are needed to regulate the multi-dimensional problems of the modern world" (d'Aspremont, 2008).

By conveying this theory, the author has spurred the international legal conversation over traditional outlooks to international law and its jurisdiction as a result of changes taking place. Coincidentally enough, Jean d'Aspremont's theory came to light in 2008 and preceded the revelation of Bitcoin, the first cryptocurrency, which a few years later proved to be disruptive to the global order after being downplayed by global actors as non-sustainable and as a development that will not stand the test of time or gain any sort of significance. At the time of writing, 14 years later, Jean d'Aspremont's

description of the nature of law as “ill-suited to accommodate growing complexity” holds more truth than ever. Today, the drivers of global governance (nation-states, international organization...) scurry to implement a policy of containment on crypto and its affiliated developments as it has overwhelmed the mechanisms set in place, however failing to do so as a result of the limitations of international law and the nature of crypto.

*B- Research Methods:*

In our quest to address the topic at hand with adequacy, this research effort will be conducted by employed mixed methods with regard to research methods, all of which will be complementary to categorizing this effort as conclusive research in which the research question is affirmed. The research methods that will be implemented are thus the following: Qualitative Research, Descriptive Research, and Analytical Research. The former will allow us to extract information from a variety of sources and confer a result of inductive reasoning.

The information that will be used to compile this research effort will be traced back to a multitude of sources. With regard to primary data, a questionnaire will be administered to different age groups from different academic and professional backgrounds in order to assess public understanding of cryptocurrencies and affiliated developments as well as international legal standing of the former. Additionally, a series of interviews will be conducted with different experts with regard to the topic.

Moreover, with regard to secondary data, this thesis will rely upon a variety of sources of information. First off, academic publications and accredited research articles will constitute a great part of the information used in our implementation of the descriptive research method, and will be relied upon with regard to information on



international law to a great extent as this scope has been extensively addressed in academic circles over the past decades. The same will be implemented with regard to cryptocurrencies and developments, however will be complemented by case studies in order to validate the correlation between crypto and criminal activity.

The methodological approach adopted to answer the research question will be the following. First off, a presentation of cryptocurrencies and affiliated developments will be conducted in the first chapter, showcasing the importance of this development and its global implications, answering the following question “How is crypto a disruptive development to global affairs and why should it be regulated?”. Based on the concluding thoughts of the first chapter regarding the need to regulate crypto, the second chapter will undertake a breakdown of international law as a regulating mechanism and its apparent setbacks which hinder its progression, answering the following question, “What hinders the development of international law as a regulatory mechanism?”. Based on the findings of both chapters, an observation of crypto from a criminal lens can be carried out and associated to the frail nature of global governance, precisely international law. The former will enable us to delve into the possibility to adhere international law as a regulatory mechanism to constrain the detrimental use of crypto while keeping in check the potential obstacles to doing so throughout the third and final chapter, in which we would be answering the following question “how can international law be used to hinder the criminal use of crypto and what are the potential setbacks in doing so?”.

C- Projected Limitations:

A research effort of such nature is not proof to potential limitations that will constitute obstacles with regard to acquiring information, and when it comes to avoiding speculative information. The potential limitations that may be faced are the following:

- *Acquiring adequate academic information on cryptocurrencies and affiliated developments:* Cryptocurrencies and its affiliated developments are a recent phenomenon in global politics that have been only been gaining saliency among scholar circles as of the past couple of years. This might constitute a research limitation whereas finding accurate and relevant information that meets our objective may not be a simple task.
- *Conducting Interviews:* As a result of the ongoing global pandemic, conducting interviews with a diversity of experts may not be feasible due to apparent constraints.
- *Extracting Accurate Information from the Questionnaire:* The information extracted from the questionnaire will need to be filtered and analyzed independently due to the fact that not all respondents may be familiar with the topic at hand and may find difficulty answering the questions proposed.

## *Chapter 2: Understanding Crypto*

### **Crypto as an IR Development and Complexity**

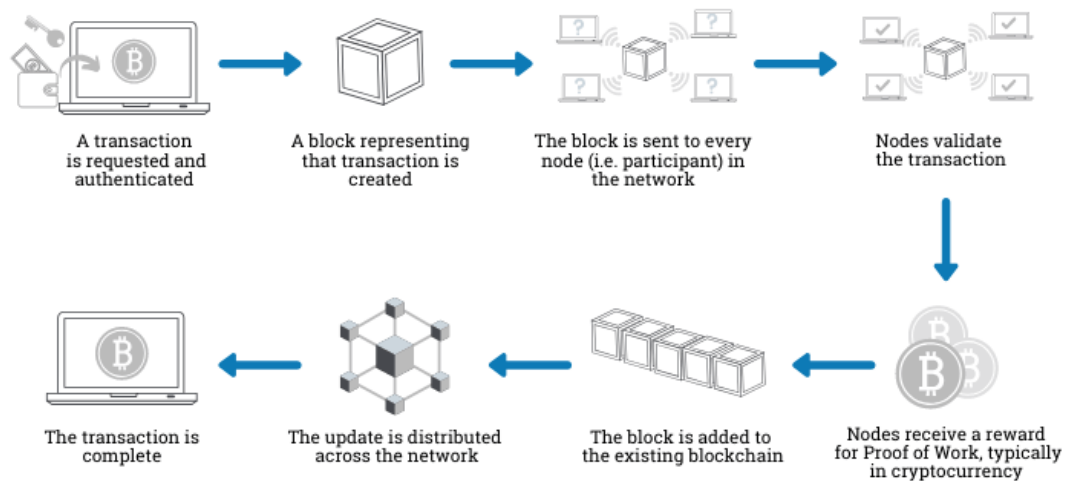
*“Cryptocurrency is such a powerful concept that it can almost overturn governments” – Charles Lee*

#### **A- Understanding Cryptocurrencies & Affiliated Developments:**

Bitcoin was launched in January 2009 and is the first decentralized cryptocurrency, with Namecoin (2nd cryptocurrency ever) not following suit until April 2011, more than two years later. There are hundreds of cryptocurrencies with valuation that are transacted today, as well as thousands of cryptocurrencies that existed at one time (Hileman & Rauchs, 2017).

The usage of natural tokens as a mechanism to incentivize network participants for administering the network in the absence of a central authority is a common characteristic of these many cryptocurrency systems. The uses of natural tokens as a mechanism to incentivize network participants for administering the network in the absence of a central authority is a common characteristic of these many cryptocurrency systems. Developing a peer-to-peer transactional system (i.e. blockchain technology) that is based on "cryptographic proof rather than trust" is perhaps Bitcoin's greatest technological achievement (and the sine qua non of every cryptocurrency) as convened in Farrell's *An Analysis of the cryptocurrency industry* (2015). Understanding the way in which the blockchain system functions is essential with regard to understand cryptocurrencies and their global implications, and the correlation of crypto and illicit activity. The blockchain is a distributed database of transaction records that is validated and maintained by a network of computers all over the world. Instead of a single centralized power, such as a bank, the records are controlled by a broad community, and

no single person has power over them, nor can anybody travel back in time and edit or erase a transactional information (Sarmah, 2018). Due to blockchain's built-in distributed nature of structure and confirmed assurance by peers, information cannot be changed like it can in a traditional central registry. When someone makes a transaction, it is sent to the network, where computer algorithms assess the transaction's legitimacy. Once the transaction has been validated, it is linked to the prior transaction, producing a transaction path. The blockchain is the name given to this chain (Sarmah, 2018).



*Visual representation of the operational mechanism of the blockchain*

Blockchain technology has been successful as its security protocols foster trust amongst users, and hence contributed to the popularity of cryptocurrencies by attracting people. The former is observed in Lebanon ever since 2019 when the country’s economy destabilized, and its banking sector no longer provided services and funds to its depositors. As a result, trust in the banking sector became obsolete and residents of the country turned towards crypto exchanges (such as Binance) to store their funds in the form of cryptocurrencies. The former was confirmed by ten Tether (USDT – fiat-

collateralized cryptocurrency, stable at 1\$, where the actual currency US dollar backs each tether in circulation) suppliers in Lebanon who acknowledged that demand increased sharply ever since 2019.

Blockchain technology is not restricted to cryptocurrencies, but has been incorporated into a recent development of crypto, being Non-Fungible Token, or NFTs for short. Non-fungible Tokens (NFTs) are one-of-a-kind digital tokens that denote property of a certain piece of material, such as digital art, game items, and memorabilia. On a public blockchain, NFTs mirror the attributes of tangible items such as rarity, uniqueness, and evidence of ownership. Discovering fascinating characteristics of NFTs such as uniqueness, conveying personal thoughts, emotions, sheer delight, a sense of accomplishment in presenting creative artworks, utilizing new models for art business, and being a part of a groundbreaking movement are among the motivations expressed by NFT enthusiasts across Lebanon for example. Similar to cryptocurrencies, NFTs hold value according to traits, supply and demand, as well as utility. Whilst some NFT project may sell for as little as 100\$ or less, other have been sold for millions of dollars such as Beeple's *The First 5000 Days* which sold for \$69 million on the 11<sup>th</sup> of March 2021. Similarly to cryptocurrencies, non-fungible tokens have also raised concerns over their (ab-)use for illicit activity. Prior to addressing this aspect of crypto and its affiliated developments, this thesis will proceed by assessing and presenting the global (economic, political, and environmental) implications that the element of study has incurred.

## **B- The Global Implications of Crypto.**

Crypto's impact is not restricted to one aspect of humanity but has, as a result of a ripple effect, gradually had significant impact on different fields such as the economy,

politics, and the environment. The implications of crypto on the former have been studied and are increasingly observed.

*i. Economic Implications:*

From an economic standpoint, there are several disagreements over what cryptocurrency is and what its purposes are. As a result, some authors regard crypto as a medium of trade, while others regard it as a risky investment. Longevity, divisibility, portability, high liquidity, and minimal transaction costs, according to crypto supporters, make it appealing. To others, cryptocurrencies can be compared to gold as commodities. Whilst some undermine crypto as currencies, looking at human history enables us to observe the use of different elements per cultures and regions as money. An example of the former is the use of copper tokens in the 19<sup>th</sup> century in the United Kingdom by residents who had no sufficient gold or banknotes. Cryptocurrencies, like random tokens throughout history, can be viewed as essentially worthless tokens that have been embraced by social convention and employed as a transaction memory. The debate on whether crypto tokens may be considered as true currencies has raised an importance point: cryptocurrencies can only earn trust if they can demonstrate to their consumers that supply will not expand too quickly, causing the cryptocurrency to lose value. So far, Bitcoin appears to be the only cryptocurrency capable of displaying low supply growth rates while also managing possible inflation. It is commonly known that Bitcoin can only be harvested in small numbers, with the extraction obeying a logarithmic growth rather than a logistical distribution. Other economists see crypto as the next evolutionary step of cash, an electronic currency unrelated to tangible reality. There is another perspective on cryptocurrencies, for example. Because it has monetary value, it can be classified as a

digital asset, with processing power determining rarity and market value. As one can see, the economic character of this coin is the source of controversy

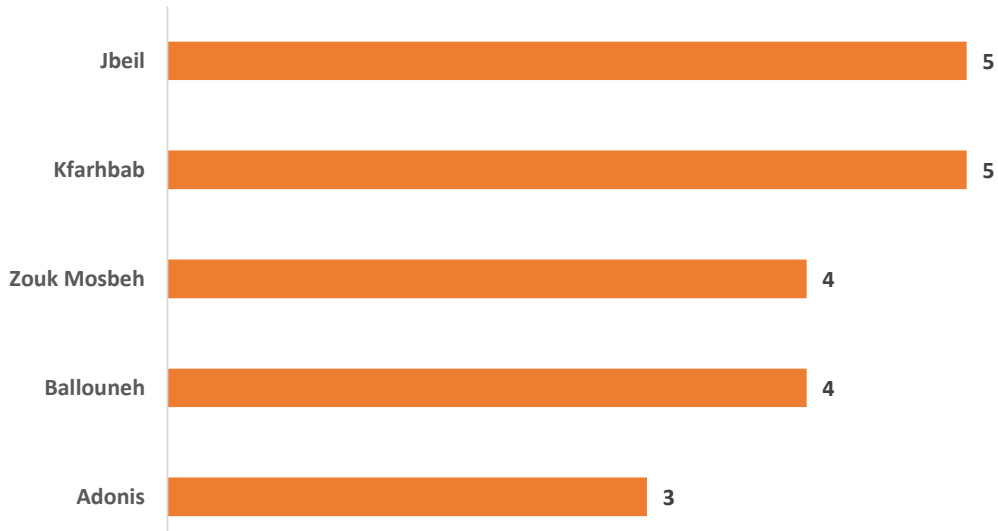
The implications of the crypto on economics transcend theoretical understandings and are observed in the global markets. Because of the involvement of traders who have accepted crypto as payment for goods and services, the acceptance rate of cryptocurrency has been steadily increasing, and establishing itself as an alternative payment method. It has been revealed in 2020, following the administration of a survey targeting small-medium businesses/enterprises, that over 36% of those accept cryptocurrencies (notably in the form of bitcoin) as a means for payment for good and services (Milewski, 2020). The number in question is estimated to have increased over the past two years as people become more familiar with cryptocurrencies. Retracing to the case of Lebanon (i.e. its population's newly-found attraction to crypto for investments and/or as a substitute for bank deposits) grants us further insight into cryptocurrencies being accepted as a medium and alternative for fiat payments. A market analysis was conducted in the Keserwan District, being one of the hubs of crypto usage in Lebanon, across 5 cities (Zouk Mosbeh, Adonis, Ballouneh, Kfarhabab, and Jbeil) in order to assess acceptance of crypto payments by small-medium businesses and/or enterprises. A total of 50 businesses (10 per city) that fit the aforementioned criteria were assessed and the following was revealed:

- Zouk Mosbeh: 4 out of 10 stores accept cryptocurrency payments, notably in the form of Tether (USDT), and 2 of those accepting other crypto currencies (Bitcoin, Ethereum, Litecoin);
- Adonis: 3 out of 10 stores accept cryptocurrency payments, only in the form of Tether (USDT);

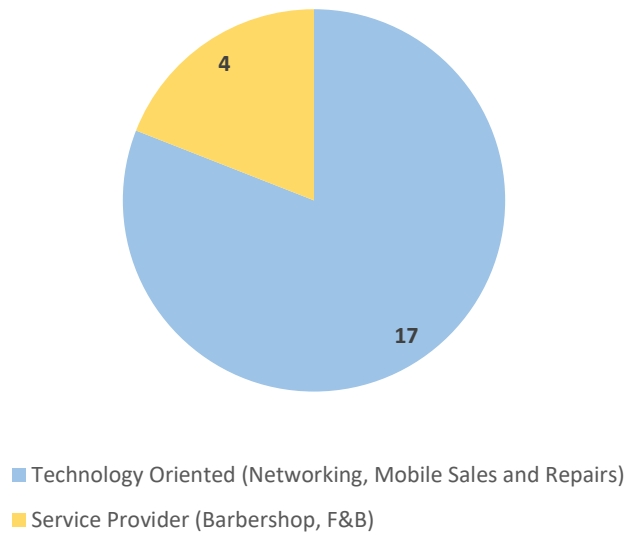
- Ballouneh: 4 out of 10 stores accept cryptocurrency payments, in the form of Tether (USDT) and Bitcoin;
- Kfarhabab: 5 out of 10 stores accept cryptocurrency payments, in the form of Tether (USDT), 3 of which accept other cryptocurrencies (Bitcoin, Ethereum, Litecoin);
- Jbeil: 5 out of 10 stores accept cryptocurrency payments in the former of Tether (USDT) only.

In total, 21 out of 50 (42%) small-medium businesses assessed accept cryptocurrency as an alternative payment for services and good which indicates growing acceptance and the inherent belief that crypto is a safe currency to store or exchange among small-medium businesses and their operations/service provision. The businesses who accept this form of payment are in majority (17 out of 21) technological oriented businesses (networking, mobile sales and repairs...) whereas the remaining 4 are service providers (barber shop, F&B). Nonetheless, it is importance to highlight that this result (42%) is not reflective of the entire nation and cannot be taken as a basis due to the fact that disparities in development and access to technology are found between different regions in Lebanon.





*Visual representation of the acceptance of crypto-payments amongst small-medium businesses (out of 50 businesses)*



*Visual representation of the nature of services provided by small-medium businesses accepting crypto payments*

The proliferation of crypto as a alternative payment method is not restricted to small and medium businesses/enterprises, but has been observed among market giants and leaders in their respective industries. Tesla, Microsoft and AT&T are a prominent example of major corporations whose goods and services can be paid for using cryptocurrencies. Other major corporations who have incorporated cryptocurrency

payments include Visa, Mastercard, and Paypal, companies which have adopted a policy pushing for greater adoption of digital currency.

The contribution of cryptocurrencies to domestic economies is inherently observed in regions where it has been adopted. A 2018 study was conducted on that matter by Mohamed Noureldin Sayed and Nesrin Ahmed Abbas, addressing the *Impact of Crypto-currency on Emerging Market Focus on Gulf countries*. The rise and transformation of the economic market in the Gulf States has been enabled by the safety, efficiency, and faith in crypto-currency (Sayed & Abbas, 2018). Dubai, a part of the United Arab Emirates, has revealed their adoption of crypto-currency, developing their own "emCash" to aid in different governmental and non-governmental purposes. The introduction of state-sponsored crypto-currency in Dubai has aided the Fintech economy's rapid expansion, with the authority adopting the new form of transaction in its operations. Because crypto-currency is adaptable, accessible, and safe, service delivery using it has blossomed, adding to the UAE's rapid economic growth, reveals the study in question. The adoption of cryptocurrencies has been linked to a variety of industry growth in the region. Many investors and businesses have chosen the area as the ideal hub to conduct their commercial activities because of the innovative technologies. The advancement of unique commercial innovations from Gulf States as a result of the shifting business model has numerous approaches in a variety of sectors, as investors from all over the world are lured to participate in the UAE's new money economy development (Sayed & Abbas, 2018).

There remains the assessment of a key element concerned with the incorporation of crypto in economic processes, that being the challenge it constitutes to banking sectors

and governmental monetary mechanisms which will be rendered irrelevant and no longer reflective of reality. Because digital currency gives a new and simpler mechanism to conduct cross-border transfers, banking services are likely to be affected. Consumers will switch to the more comfortable, easier, and less expensive method of transacting, bypassing traditional commercial banks, which create numerous hurdles in the execution of business transactions, particularly cross-border transactions. Nations who adopt crypto as valid alternative for payments are inevitably prone to losing track of currency flow within the economy which renders vulnerable to unpredictable market behavior. The rise of cryptocurrencies represents a danger to the dominance of fiat currencies, which are frequently exploited by political and economic factors. The huge evolutionary move of transitioning to digital currency puts the viability of present fiat currencies in jeopardy, diminishing their market value.

*ii. Political Implications:*

The observation of the implications that crypto has on economies allows one to realize the extent to which such a development is disruptive when it comes to global governance and affairs. Due to the process of globalization and continuously increasing interconnectedness, a development of such nature and of such (projected and observed) impact on economies (internationally and domestically) is bound to have political implications and to be affected by politics as well.

Elon Musk, and Mark Zuckerberg, two of the most influential individuals in modern technology and who have incorporated digital currencies in their businesses in different forms, together have suggested that digital currencies are better suited for a more multipolar world since they are not controlled by any single government (Patel,

2022). Yet, the two major contending countries, America and China, are not attempting to democratize the monetary system, but rather to consolidate their dominance over it. How political upheaval may impact the crypto sector are difficult to measure; still, the linked nature of politics, governance, and money tells a story of fundamental interconnectedness.

At first glance, addressing the impact of crypto on domestic affairs is beneficial. Patrick Mardini<sup>1</sup> has addressed the incorporation of cryptocurrencies in Lebanon (Lautissier, 2021). Having observed the collapse of the banking sector, Mardini conveyed that “Despite their high volatility, crypto-currencies are a safer investment than the Lebanese pound” and most definitely a safer deposit platform than Lebanese banks presently. In the case of Lebanon, that could prove to affect domestic affairs to a certain extent. In fact, the majority of Lebanese banks are owned in part or in full by corrupt politicians or are directly affiliated to those. The former was made use of as a tool to consolidate rule through dubious financial processes that rendered the people dependent on banks. If crypto transactions can replace banking transactions in part, hence breaking the monopoly found, citizens may adopt different voting behaviors as they break their dependency on the political elite, formerly safeguarded by their enforced continuation of financial transactions and processes.

Crypto proponents are quite comparable to traditional liberalism supporters whereas both preach for greater freedom through diminished governmental interference in economic affairs. This can be achieved through the proliferation of crypto and its

---

<sup>1</sup> Finance professor at the Lebanese University of Balamand and Head of the Lebanese Institute for Market Studies think tank.

gradual incorporation at the very least, simplifying activities between people and diverse actors on Currency's platform has the potential to reorganize the present system (Mcwhinney, 2021). As the financial infrastructure is decentralized, and the authority to expand or reduce the quantity of money is not assigned to a single or set of authorities. As a result, in the proposed format, governments' role in directing and controlling economic plans via intermediates could become obsolete on the long run. With regard to domestic politics, a receding role for central authority with regard to economic affairs could be translated into the development of more monopolies. Similarly, diminished intervention of central authority in transactional affairs could amount to losses for central government and its institutions which could be detrimental for development and security.

At the international scale, crypto holds similarly important implications whereas it can help entities surmount traditional tools of diplomacy such as economic sanctions. Traditionally, economic sanctions have been used as a soft power tool to condition behavior of certain entities and proven to be efficient to certain extents. Those restrain actors (state or non-state) from operating freely and transacting with others using international banking mechanisms and systems such as SWIFT. Entities subject to sanctions, such as Venezuela, have seen their income and capacity to sustain themselves significantly damaged given their inability to find alternatives. As of recently, the case of Russia stands out. Ever since the country's annexation of Crimea in 2014, a series of indicators have been implemented. As a response to Russia's present invasion of Ukraine, fresh business and monetary sanctions have been imposed on Russian firms and people, including billionaires (Mouna Hazgui, 2022). On the 26<sup>th</sup> of February 2022, seven Russian banks have been banned from SWIFT, “effectively denying them access to

international markets”, as part of the crackdown against the Russian Federation due to its ongoing attack on Ukraine (FP Analytics, 2022). The sanctions in questions have contributed to the devaluation of Russian ruble and entailed losses to Russian oligarchs. Nonetheless, the spoils of those sanctions were short-lived whereas crypto was employed as an alternative by many to conduct their transactions. Indeed, moving through the unregulated cryptocurrency market assists Russians in evading restrictions and continuing their financial operations. As a matter of fact, since the beginning of the war, the exchange of Russian rubles into cryptocurrency has increased (Cuthbertson, 2022). As per Paolo Ardoino (communicated to *The Independent*), CTO of global crypto exchange BitFinex, “It goes without saying the defining characteristics of bitcoin allows it to act as a safe haven during turbulent times”. Hence, based on such observations, it is safe to assume that crypto can alter the processes and tools that condition international affairs and diplomacy, leading nations to revisit their approaches to global governance and the manner in which they address disruptive and hostile nations, who can harness crypto to sustain their activities.

A prevalent concern among both hardcore cryptocurrency supporters and regular investors is how the government should control crypto. To answer this topic, we must first recognize that Bitcoin and most other ICO-issued tokens are decentralized. Bitcoin has created debate and publicity since its inception in a 2008 whitepaper. Its supporters hail the cryptocurrency's birth as the beginning of a new and equal monetary system (Can The Government Regulate Cryptocurrency?, 2022). Nevertheless, countries across the globe are keeping a wary watch on Bitcoin's progress. A few countries, like El Salvador (back in September 2021), have embraced it as legal tender. On September 7, shortly

after midnight, the Chivo project was started. Bitcoin's price has dropped by \$10,000 in 3 minutes shortly after 10 a.m. Users saw their \$30 in bitcoin fall under \$25 in actual time, providing a solid technical education in bitcoin's fluctuations. The president, Bukele, attributed this collapse on the IMF, however it was much more probably due to leaking news of cryptocurrency exchange Coinbase getting an alert from the US Securities and Exchange Commission (SEC). A day prior, he had bought \$20.6 million in bitcoins for the national exchequer (Gerard, 2021). The IMF has cautioned President Nayib Bukele of the hazards that cryptocurrencies pose to the country, emphasizing that obtaining a loan from the agency would indeed be hard. According to the released statement, the board's chairmen have also "encouraged the government to limit the scope of the Bitcoin act by withdrawing Bitcoin's legal currency status" (IMF urges El Salvador to remove Bitcoin as legal tender, 2022). It is thus apparent that international politics hold similar impact on crypto whereas politics have the capacity to influence market behavior and prices, a downturn of crypto as a result of its volatility.

Nations who are thus far opposed to the legalization of crypto, like the United States of America, have taken steps against crypto at time. The lawsuit between Ripple (XRP) and the SEC is a clear example of politics affecting crypto. The SEC sued the cryptocurrency of breaking securities laws, and has devolved into a lengthy war, well with future of crypto regulations possibly on the line. The dispute, which began in December 2020, revolves around the SEC's claim that Ripple failed to register around \$1.4 billion in XRP as securities (Pimentel, 2022). The results of this case might have significant consequences for cryptocurrency. If the SEC wins, it might alter the way crypto firms operate by establishing a standard that the digital assets they provide

customers should be exposed to the same onerous accounting and registering requirements as securities, and will most likely influence market growth negatively, yielding devaluation across the crypto market, i.e., the entry into a bear market in which supply is massive and demand is not comparable. On the other hand, if Ripple wins, it will be a significant triumph for cryptocurrency at a moment when the sector is expanding fast and also under more regulatory review on numerous fronts, and such a win will contribute to the increase of crypto prices across the market, potentially leading to a bull market in which prices increase due to increased demand for a competitive supply.

Not only do domestic politics affect the crypto market, international affairs do so in a similar manner. International instability, such as warfare as observed in the case of Russia and Ukraine, tends to be impactful on crypto. When the fight started, all currencies plummeted dramatically in price; Bitcoin fell under \$35,000 and Ethereum fell below \$2,400 soon just after operation started, but both have subsequently rebounded. However, considering the current geopolitical concerns in Europe, Bitcoin has declined by more than 30% since its November high of \$68,990 (Gailey, 2022). Changes in global governance and international politics may, however, contribute to the acceptance of crypto and its incorporation. As a result of the conflict in Ukraine, Ukraine legitimized crypto transactions, which allowed supporters to contribute to Ukrainians via cryptocurrency after the government established e-wallets to accept currencies such as Bitcoin and Dogecoin. shedding light on the implications of wars and political tensions on the crypto market. According to the consulting firm Elliptic Enterprises Ltd., the Kyiv government and non-governmental groups have collected the equivalent of \$63 million as



of March 9. According to Ukraine's Vice Minister of Digitalisation, Alex Bornyakov, vendors with everything from food to protective vests were embracing tokens such as Bitcoin and Ether to assist the army in rapidly acquiring supplies (Gardner, 2022). It is thus safe to assume that such occurrences may hasten legislation on crypto or further the international political ambiguity when it comes to taking a stance on crypto and its developments.

*iii. Environmental Implications:*

Understanding the nature of crypto transactions (peer-to-peer online transfers) inherently implies that its use requires active consumption of electricity. Despite the Paris Agreement's (achieved in 2015 with a set of hard, soft, and non-obligations concerned with environmental action) (Rajamani, 2016) coordinated efforts to cut global greenhouse gas emissions, the technology and communications sector has received relatively little attention as a substantial driver of environmental degradation. Concerns regarding the amount of energy required for crypto-mining have recently grown. Worries concerning CO<sub>2</sub> and natural gas emissions as a result of cryptocurrencies use cannot be dismissed as a result. This has ultimately led to further investigation into the impact of cryptocurrencies on the environment.

The University of Cambridge has come out with a tool that assesses an estimated energy consumption figure of bitcoin mining and usage. The tool in question is known as the Cambridge Bitcoin Electricity Consumption Index (CBECI)<sup>2</sup> and is updated on a regular basis with a digital footprint, as well as daily updates to the bitcoin network

---

<sup>2</sup> <https://ccaf.io/cbeci/index>

power demand. At the time of writing (11/05/2022), the CBECI estimates a median global annual consumption (corresponding to the rate at which miners currently use electricity) of 146.98 TWh (Terawatt-hours), with a theoretical upper bound of 315.18 TWh. To put this number into context, Lebanon's estimated annual consumption falls at 1.314 TWh at 24/7 power supply, a calculation based on Diana Kaissy's<sup>3</sup> estimation (Al Jazeera, 2021). Based on particular statistics published in 2018 (De Vries), the bitcoin grid's overall power demand equaled that of some wealthy countries, notably Ireland, Hong Kong, and even Austria. The figures provided by the CBECI are important as they pinpoint the size of energy consumed for bitcoin transactions and yields room to interpret its impact on the environment. Such figures are bound to be accompanied by an ecological impact as energy production is often traced back to polluting means (coal, fuel...), i.e. non-renewable and non-green mediums, which would correlate bitcoin transactions to increased pollution resulting from energy production. Additionally, what is concerning about those figures is that they are solely concerned with one cryptocurrency, Bitcoin. However, other cryptocurrencies can be mined in similar fashion using different mediums, and transactions for other cryptocurrencies require energy as well, which ultimately raise greater concerns with regard to the environmental impact of cryptocurrencies.

Not only are the data accompanying cryptocurrency concerning in terms of electricity expenditure, but also in terms of greenhouse gas emissions. According to suspicions, all cryptocurrencies will threaten the pledge to reduce greenhouse gas emissions under the Paris Agreement. In light of such observations, studies have been

---

<sup>3</sup> Board member of the Lebanese Oil and Gas Initiative and an expert on energy governance.

carried out by environmentalists which have raised the conjecture that emissions traced back to crypto activity may contribute, independently of other factors, to push global warming further by 2°Celsius over the next two decades (Mora et al., 2018). Nonetheless, the former is theory that is subject to interpretation and variations. A 2019 study on *The Carbon Footprint of Bitcoin* addresses the observable and measurable aspect of cryptocurrency activity and transactions. The study in question has revealed that carbon emissions range measured for bitcoin in 2019 was between 22 and 22.9 MtCO<sub>2</sub>, a level that is comparable to the emissions produced by the likes of Jordan and Sri Lanka (Stoll et al., 2019).

Another fundamental aspect of environmental impact associated with crypto activity is the disposal of electronic waste which is often overlooked but holds equal importance to the factors addressed. The pace of technological advancement witnessed over recent years renders new electronics quickly obsolete and uncompetitive in the face of up-and-coming developments. This extends to electronics used in the realm of crypto which grows in complexity continuously. When bitcoin mining initially began in 2009, the process could be fulfilled using a basic home computer. However, today, mining a fraction of a bitcoin requires powerful computing devices. On the one hand, as a result of constant development, mining equipment becomes inefficient and no longer as profitable within a year and a half on average as reported by ten crypto miners in Zouk Mosbeh, Lebanon. The hardware in question, now obsolete and no longer efficient, is disposed of with no regard for ecological repercussions in most cases. A 2019 study concerned with crypto and ecological sustainability by Alex De Vries provides that crypto equipment waste generates around 11,000 metric tons every year and a half on average, a number

which is comparable to the total electronic waste generated by a small nation like Luxembourg (12,000 metric tons).

Despite the above-mentioned environmental consequences, it is estimated that Bitcoin mining has fewer environmental consequences than issuing banknotes, gold mining, and banking systems as per Badea & Mungiu-Pupăzan (2021). The former is an estimation based on energy consumption solely. The table below showcases that bitcoin mining remains significantly less costly when it comes to the costs affiliated with energy consumption and hence remains more sustainable than traditional systems. However, while comparing the crypto to the banking system, it is important to remember that the services provided are not identical, and that, unlike fiat money, cryptocurrencies require unique conditions to be used, implying that their survival is dependent on the use of technology.

<b>Gold Mining &amp; Recycling</b>	Gross Yearly Cost	\$105 billion + \$40 billion
	Energy Used (GJ)	475 million + 25 million
	Tons CO <sub>2</sub> Produced	54 million + 4 million
<b>Paper Currency &amp; Minting</b>	Gross Yearly Cost	\$28 Billion
	Energy Used (GJ)	39.6 million
	Tons CO <sub>2</sub> Produced	6.7 million
<b>Banking Systems</b>	Gross Yearly Cost	63.8 billion (for electricity use); \$1870 billion (all expenses)
	Energy Used (GJ)	2340 million
	Tons CO <sub>2</sub> Produced	390 million
<b>Bitcoin Mining</b>	Gross Yearly Cost	\$0.375 billion
	Energy Used (GJ)	3.97 million
	Tons CO <sub>2</sub> Produced	0.66 million

Beyond all of the negative environmental consequences of acquiring and using cryptocurrencies, blockchain technology can be a helpful tool in the struggle to maintain a clean environment. Blockchain technology is seen as a valid alternative to the modern electrical distribution system's difficulties, providing a secure atmosphere for stakeholders with more efficient and transparent operations (Adeyemi, 2020). Blockchain technology has been gradually incorporated into diverse sectors such as healthcare and real estate for the former reasons (Tama et al., 2017).

Additionally, the repercussions that the crypto sector has on the environment can be tended to with the adoption of renewable sources of energy such as solar or wind energy. If crypto-mining enthusiasts switch to only using sustainable power, mining might assist the introduction of renewable energy resources, as currently, 77.6% of crypto-mining operations use green energy, while the remainder rely on fossil fuels and nuclear power, as per the Bitcoin Mining Report of November 2018. However, due to the anonymous nature of the mining process, it is believed that it will be extremely challenging to validate these data. The second perspective starts with an ancient human problem: self-interest. The former demonstrates that crypto-miners are not interested in altruistic conduct; they will use the cheapest energy available regardless of the environmental consequences. De Vries (2019) has a broader perspective on the cryptocurrency network's energy usage and its environmental implications, concluding that these issues will not be fixed solely by using renewable energy, and that the only way ahead is to modify the crypto algorithm. As a result, we should not overlook the ecological threats that crypto-mining operations cause.

Having grasped what crypto is and its sheer impact on global affairs, whether at the domestic scale or international scale, has already started the conversation into the need to regulate it. Nonetheless, domestic regulation is not sufficient in this case for different reasons. On the one hand, cryptocurrencies are not bound by territoriality and hence their detriments cannot be contained based on the initiative of nations legislating independently according to their interests. Moreover, domestic regulation is not sufficient as it is not unilateral and will render gaps in which the detriments of crypto use can flourish as a result of its decentralization. As a result, resorting to international legislation to contain and regulate cryptocurrencies is a more appropriate approach which could yield greater impact. In that spirit, understanding what international law and its sources is crucial in a quest to assess its use to regulate cryptocurrencies, while attributing attention to the setbacks it is bound to that may hinder progression and development.

### *Chapter 3: Assessing International Law*

#### **International Law: Ill-Conceived or Ineffective?**

*“It is not love, or morality, or international law that determines the outcome of world affairs, but the changing distribution of organized force” – William Woodruff.*

William Woodruff’s statement treads upon the principles of the realist school of thought, whereas global affairs are governed by state-centric politics and interests, rather than international organizations and international law. Such claims are rooted in simple observation of the political dynamics and the reoccurrence of events that supposedly are to be addressed by international law. By definition, international law was devised in order to introduce regulatory norms to global governance by introducing a shared operational framework for nations that encompasses a variety of domains. On the one hand, those frameworks have been established along with affiliated institutions to monitor and sanction adherence or lack thereof. On the other hand, criticism is rampant and popular discourse regularly underplays the significance of international law and its impact on global developments. Similar discourse is attributed to international law and its mechanisms concerning the proliferation of cryptocurrencies and their use to carry out illicit activity. Ultimately, this had led for the necessity to understand whether international law is ill-conceived, which will be carried out by breaking down the sources of international law and the inherent limitations it faces.

A- The Sources of International Law:

Addressing the sources of law can refer to a historical, ethical, social or other aspect of sources. For the purpose of this thesis, the sources of international law will refer to the legal basis of international law. Considering the sources of international law leads one to assume the existence of legally binding rules in international law, a view that is not rid of criticism. Proponents of the binding nature of international law argue that the consent expressed by subjects of international law inherently binds them. However, the sources of international law are not founded on this justification solely. As the Statute of the International Court of Justice depicts in Article 38(1), the sources of international law are diverse in their characteristic and ultimately their nature. All of the following sources of international law are unique but remain complementary to one another.

*International Conventions/Treaties:* International Conventions and treaties, by definition being formal agreements between nation-states that have been signed and ratified, have for long assumed the role of most prominent source of law within an international context (Hollis, 2005). The former has been ingrained in common discourse as revealed in the survey carried out for this study which revealed that 78% of respondents consider treaties and conventions as the source of international law, with only 36% of those being aware of any other sources. Ever since the end of the Cold War, and up until the time of writing, the number of treaties concluded by nation-states and other subjects of international law has grown exponentially as international governance grew into a globalized system. What ultimately changed and rendered treaties as sources of international law is the fact that they are no longer constricted to state affairs and thus driven by states. Today, international organizations and non-state actors assume in great part the responsibility of



drafting and implementing treaties which are binding to state. The growing number of treaties and conventions is not the sole factor that underlies their predominance as a source of international law. The expansion of international legal coverage from mere interstate relations to every area of human activity has made treaties the “preferred vehicle by which states structure their rights and obligations under international law” (Hollis, 2005). The former is due to the fact that treaties entail express codification of rights and duties of states which makes implementation, monitoring, and accountability easier to maintain. Moreover, treaties have become the preferred source of international law as they diminish the possibility to interpret state or personal responsibilities and behavior under international law according to personal interests, hence restrict derogation. A focus group discussion conducted with legal experts surrounding the prominence of treaties as a source of international law has revealed that treaty law is highly regarded and relied upon in public international law cases as codification facilitates the task of adjudication. The discussion has also yielded similar information on cases of private international law such as in investment disputes settlements, showcasing on the one hand the extensive number of treaties which address every element of human behavior, and on the other hand showing the extent to which treaties are relied upon as a source of law.

*International Custom:* As per Article 38 (1)(b) of the ICJ, custom is known as “evidence of a general practice accepted as law”. Custom is considered as a vital source of international law and had for long assumed the role of predominant source of law, and the basis for the creation of new norms. The establishment of the modern international system of governance, customary law has taken a secondary role whereas the codification

of international law through treaties has become increasingly relied upon (Milisavljević & Čučković, 2014). International customary law arises from renown state practice across time, in addition to *opinio juris* (an opinion of law or necessity). Identifying customary practices is a lengthy practice and requires the identification of patterns of behavior across time amongst nation-states, or establishing consensus as part of a shared sense of obligation as in the case of International Humanitarian Law.

*General Principles of Law:* It is of knowledge that municipal and international law are interdependent in different areas such as criminal liability for example. One important aspect of this interdependence is the fact that general principles of law recognized by civilized nations constitute a source of international law. Throughout the history of the development of international law, a significant amount of norms have been inspired or directly derived from municipal ones (Ellis, 2011). The following are a few of the general principles in question that have been revealed throughout a series of discussions with the legal focus group: Laches; Good Faith; Res Judicata; Impartiality of Judges. Those general principles are relied upon by international legal tribunals when no authority may be found in other sources of international law. However, the process of sourcing international law from general principles is not an easy task and entails different steps. The first of those steps is the identification of a principle that is shared among amongst the main legal systems across the globe, succeeded by the extraction of its essence, and finalized by slight alterations to the principle in order to accommodate the specificities of international law (Ellis, 2011). The following statement by Judge Sir Arnold McNair is often quoted when addressing the adaptation of principles from municipal law into

international law and will ultimately serve as the concluding words with regard to this source of international law:

*“The way in which international law borrows from this source is not by means of importing private law institutions ‘lock, stock and barrel,’ ready-made and fully equipped with a set of rules ... The true view of the duty of international tribunals in this matter is to regard any features or terminology which are reminiscent of the rules and institutions of private law as an indication of policies and principles rather than as directly importing these rules and institutions.”*

*Judicial Decisions and the Teachings of Qualified Publicists:* The final source of international law, as provided by Article 38(1) of the ICJ is judicial decisions and the teachings of qualified publicists. With regard to judicial decisions, those are not generally legally binding in all cases tried under international law, but constitute precedence of international legal practice which can assist international legal jurists and courts in the analysis of cases, interpretation of the essence of treaties, and understanding international customary law. On the other hand, the teachings of qualified publicists are defined as the books and articles tending to legal questions which are compiled to validate the international legal contents (Helmerson, 2019). Nonetheless, teachings are not relied upon as heavily as treaties or custom when it comes to judicial rulings or in legal settlements under international law. Teachings of qualified publicists are nonetheless present in a few ICJ majority opinions, such as the Court’s decision in Land, Island and Maritime Frontier Dispute which cited the publicists of Oppenheim’s International Law (Helmerson, 2019). Additionally, one must understand that not all publications are fitting as sources, but only from *qualified* publicists. The former entails that a variety of factors

are taken into account prior to referencing any author and his/her work, establishing a clear distinction in relevance and quality amongst works.

The discussion that took place with the focus group comprised of legal experts on the topic of sources of international law has ultimately drifted towards the setbacks of international law, some of which are concerned with the sources in question, whereas others are concerned with the implementation of legal norms, as well as the capacity of international law to adhere to growing changes in the globalized system. This discussion has shown that questioning the nature of international law as ill-conceived or inefficient is not only adequate, but necessary with regard to the topic at hand.

*B- The Setbacks to International Law:*

Given the fact that the international system of governance is state-centric as depicted by the realist school of thought, developments such as international law are bound to face a series of setbacks as the system in question is not flexible to change. Moreover, developments such as international law are complex in nature, often necessary for its viability and to be accepted by nations. The setbacks to international law are extensive, whereas some of them have emerged ever since it's early creation and others have revealed themselves over the course of history. Those issues will be broken down in this section in order to showcase whether international law is ill-conceived or simply ineffective as an international regulatory framework.

*International Lawmaking Process:* Legislation at the municipal level is a relatively easy process. A certain bill of law is studied by specialized committees and brought forth to the legislative branch, being the parliament, where the bill is voted upon by members of parliament after having assessed the formulation. Once sufficient votes are secured, the

law is promulgated and goes into effect within a defined timeframe. The law-making process is not the same at the international scale and is a complex one accompanied by difficulties as revealed throughout the discussion carried out with the previously mentioned focus group. On the one hand, the variety of sources of international law inherently constitute a setback whereas each holds its own issues. The most prominent source, that being treaties, is plagued by its multilateral nature when it comes to law-making. Multilateralism constitutes a setback to the effectiveness of international law-making for two reasons: First, treaties cannot become international law unless a significant number of, if not all, states provide their consent; Second, multilateralism can lead to deadlocks at the formulation stage of a treaty or agreement achieved at the end of a convention whereas certain entities are not willing to provide consent if certain terms are a part of the final document as those could hold reflect upon their interests negatively. For instance, taking the example of the Rome Statute, being the founding treaty of the International Criminal Court (ICC) and thus a source of international criminal law, can offer further insight into the correlation between multilateralism and ineffectiveness of international law. The jurisdiction of the ICC only extends to entities whom have ratified the Rome Statute, and as such many, such as the United States of America and Russia, have not in order to avert being subject to accountability for their activities. This is a clear case in which multilateralism can hinder effectiveness whereas perpetrators of legal violations can shield themselves and undermine effectiveness of the legal codes and mechanisms set in place. Another example of multilateralism and the lawmaking process can be observed in the case of the United Nations Framework Convention on Climate Change (UNFCCC) which requires unanimity to pass certain agreements, one state or a

group of like-minded states can hinder the entire lawmaking process (Meyer, 2013). With regard to the formulation stage, different treaties may never see the light of day as a result of clashing interests as observed in the case of the United States of America across treaty negotiations in which it has consistently worked to weaken treaty language and create exceptions. The issues faced in the formulation stage can lead an agreement to be too general once agreed upon by the different stakeholders which can lead to legal loopholes. In fact, generalization contributes to the creation of a gray area for breaches whereas cases cannot be solidly built upon the general articles or clauses, or can be argued not to encompass the specific violation, ultimately allowing the manipulation of international law as a result of interpretation. State consent is hence the common denominator with that regard, turning the basic structural mechanism of international law into its own shackles. The setbacks posed by the sources of international law are not restricted to treaties but extend to customary law, as well as the general principles of law and the inspiration of international law from municipal law. When it comes to customary law, setbacks are evident at first glance with the definition of custom and what is fitting to be considered as customary law on the basis of practice. Today, promoting certain practice into custom requires the identification of a pattern of adoption of the practice in question across time, to be complemented by a variety of sources who have been adopting it. Moreover, another setback that can be faced in the law-making process when it comes to customary law is the order of precedence. With regard to the correlation between international law and municipal law, which materializes in the inspiration that the former takes from the latter in terms of adopting the general principles of law from nation-states. This aspect of international law-making has inherently become much more difficult and

has become restricted to a few principles, some of which have been previously mentioned in this piece. At present times, nation-states tailor their legislation to specific issues which render most municipal law tough to export and implement on an international law, whilst similarly being faced with the element of state consent. Last but not least concerning the lawmaking process, fragmentation constitutes a major setback.

Fragmentation in that case is seen as the diversification and expansion of international law. Nonetheless, within the legal context, fragmentation holds a negative connotation whereas the diversification in question leads to conflicts of interest and greater difficulty in international lawmaking. As reported by the majority of the legal experts within the focus group, The division of international law into specialized subfields and specialized institutional processes frequently jeopardizes legislative and institutional activity, as well as general international law practices and principles. As a consequence, there are clashes between rules or rule-systems, varying institutional practices, and possibly a loss of a holistic view of the law. Legal certainty is lost as a result of fragmentation, conflicts over possibly overlapping jurisdictions of various courts arise as a result of the multitude of institutions.

Hence, it is apparent that the lawmaking process in international law is bound by a long list of setbacks which hamper the efficiency and effectiveness of international law, whether in its creation or in its implementation as elaborated throughout this section.

*Unanimous Application and Commitment by Nation-States:* The realist school of political thought is comprised of intertwined theories concerned with global governance and international relations which place significant importance on the central role of the state and affiliated concepts such as national interests and the different forms of power. By

emphasizing on the central role of the state and its interests, the realist theory undermines the importance of international organization and international law as effective developments within the given system of governance to regulate human day-to-day activity and occurrences. With regard to international law, this constitutes an important setback and one of the most prominent arguments against the efficiency of international law whereas the former are bound by the willingness of state to unanimously apply the principles and rules of international law and to show commitment by prioritizing international legal norms. The data collected from the survey carried out revealed the following with regard to the relation between nation-states and commitment to international law in its upholding and application. As per the pool of respondents (whose majority is comprised of scholars and researchers in political science and legal studies), a state upholds international law not because the norms are law, but because it is in the state's best interests to do so. As a result, a state may follow international law in some circumstances but disregard legal standards in others, even if the state recognizes that all of the laws are legitimate. According to the rationalist account, a state is compliant with international law for three motives: first, the international laws are in the state's immediate interests (whereas derogation has no advantages); second, the other contracting parties (nation-states) will strike back against non-compliance; or third and finally, the nation desires to maintain its reputation for adhering to international law. However, compliance is only sustained as long as international law rests in the interests of the state and does not clash with its aspirations which would ultimately hinder their commitment and its application. Furthermore, large multinational agreements (which become international law) that treat all states equally are unappealing to powerful



entities, who either refuse to sign them, or sign them with several reservations that compromise the agreements' duties, or refuse to comply with them. States are less likely to uphold and commit to international law as a result as it hinders their freedom to behave according to their interests. Here lies a conceptual issue with international law that was stressed upon by the panel of legal experts who criticized the concept of portraying states as equal to one another, which ultimately hinders the unanimous application of international law and the commitment of nations. Simply put, nations are not equal to one another which renders the foundations upon which international laws are built ill-conceived and that are not appealing to nations. Additionally, the rise of global interconnectedness has contributed to lack of commitment of nations to the application of international law or its use to pursue any endeavors, relying upon bilateral/multilateral cooperation and coordination instead. It is reasonable to assume that international law plays a minor role when governments collaborate to resolve simple issues (Guzman,2002). Andrew Guzman's compliance-based theory of international law reflects upon the former adequately through a game theory which breaks down the implications of being bound by international legal norms to address a certain issue, and comparing it to addressing the issue in a bilateral setting. Guzman's approach reveals that although international law can help to direct interactions on a particular conclusion when there are numerous equilibria, it doesn't do much else which inevitably discourages states from unanimously apply international law or commit themselves to its use. Resorting to international law when addressing any issue is time-consuming which cannot be accepted by nations in the fast-paced world. The former is due to the fact that, when an issue requires significant time to be addressing, the more losses are incurred whether on an

economic, social, or political scale. This ultimately drives nations to resort to agreements in a peer-to-peer setting (bilateral/multilateral direct negotiations), circumventing international legal mechanisms to this problem. The former approach is also adopted for political reasons whereas negotiations among entities are more likely to sustain the relationship as concessions are made to settle the case and go back to day-to-day activity whereas international legal mechanisms and the conclusions reached often lead to increased tension and antagonism.

It is thus apparent that the state element constitutes an important setback to international law and its mechanisms, ultimately hampering the achievement of the supremacy of international law. Achieving the unanimous application of international law and commitment by nation-states is ultimately a far-fetched ideal, blocked by the sempiternal concept of state sovereignty and state interests which have reigned over global governance ever since the end of the second world war. Those findings ultimately make sense of the principle which attributes chaos to the functioning of the international system whereas regulatory mechanisms such as international law are only accepted when they are self-serving to state-objectives.

C- *Keeping up with Global Developments and Changes in International Relations:*

Developments of a global nature have become the norm rather than the exception ever since the dawn of globalization and interconnectedness. Those developments may be environmental, security-affiliated, social, political, economic, or a combination of all of the above as in the case of cryptocurrencies and affiliated developments. Being globalized in nature implies that those developments are interconnected to all aspects of

global governance and ultimately affect international relations. The former constitutes a problem for international law whereas it must tend to such developments in a prompt manner in an attempt to limit greater unpredictability and volatility at the level of global governance. Assuming that international legal regulation is easily feasible would be idealistic, and might even tread upon being utopian. Realistically, tending to the drawbacks of global developments and changes in international relations through international law is a lengthy and difficult process for a multiplicity of reasons.

The primary issue affiliated with the response of international law to global developments which leads us to question its efficiency or the nature of its conception is its inability to respond and regulate developments swiftly. International legislation with that regard is similar to domestic legislation whereas it is not feasible without assessing all cornerstones of the development in question and understanding all of its implications, whether those are positive and could be beneficial or can prove to be detrimental to order and stability, often being a mixture of both which makes the task even more complicated. The difficulties at this stage are evidently heightened by the fact that most, if not all, modern global developments take time to unfold which hampers the assessment of their impact on global governance, rendering international legislation on those developments continuously on hold or preliminary legislation being continuously revised. Hence, it is apparent that international legislation is hindered by its own nature that requires it to acquire extensive understanding of a given development and its impact, which necessitates the material observation over time. The time element and its constitution of a setback to international legislation can be exemplified by taking the case of unmanned aerial vehicles. The international community has issued controversial stances on

unmanned aerial vehicles, notably drones and their use in armed conflict and the inability to formally legislate, to date, in favor or against their use under International Humanitarian Law as their use over time is ambiguous and their impact differing from one case to another. Tending to such conundrums often leads institutions and organizations whose decrees influence international law or law-making to issue recommendations only, postponing formal legislation until further notice to allow greater observation of implications of the given development, as is occurring to date with crypto to date.

The second issue affiliated to global developments which leads us to question whether international if inefficient or ill-conceived is the inability to legislate by drawing upon municipal law. For example, national legal response to certain criminal activity differs among nations on the basis of custom, culture, and nature of the political system. In such cases, international law draws upon the common principles of law, or by extracting a standard upon which it can build upon and refine for international legislation. Global developments and changes in international relations are not exported in a unanimous manner to all nation-states and their implications vary from one sovereign nation to another, resulting in diverse approaches to regulation and legal response where necessary. In such cases, international law faces difficulty in extracting a standard or a general outlook from municipal law across the globe whereas domestic legislation to such developments is often driven by state interests which differ from one to another. This inability to establish a pattern makes the process of addressing those developments ultimately difficult whereas municipal law as a source of international law is compromised by specificity, and might be counterproductive as a result of the sheer

variety in municipal legal stances. Furthermore, in many cases, international law may prove to be useless in addressing global developments and changes in international relations due to the fact that it may constitute a clash of interest with the municipal legislation of nations and ultimately will not be applied unanimously.

Third and finally with regard to global developments and changes in international relations, international law faces scrutiny for being outdated, even in instances when it is regularly updated. Discussion with peers in the field of political science and international law has complemented research surrounding the development of international law throughout history and led us to extrapolate upon a popular argument concerned with International Humanitarian Law (as a branch of public international law), being that “IHL is always ‘one war behind reality’” as conferred by the ICRC’s handbook on International Humanitarian Law. Building upon this argument, the conclusion that international law, similarly to its branch concerned with the law of war, is relatively behind on developments and is, at least, one global development behind in terms of regulation and legislation. As it appears, the former is a pattern amongst the different strands of international law whereas it attempts to keep up with developments in different fields but fails to do so as a result growing complexity and the pace at which developments and changes take place in the globalized system. Whilst international legislation holds the intention to remain up to date but fails to materialize this objective due to the associated setbacks which have been previously addressed in addition to the rapid changes that take place within the realm of global governance and the globalized system.

The assessment of the sources of international law as well as its apparent setbacks has been an enlightening activity and will be crucial when it comes to showcasing the exploitation of those inherent limitations by criminal offenders using cryptocurrencies to avert criminal liability. The findings that this chapter has conferred lead to us to assert that achieving international legal supremacy is an idealistic task which arguably cannot be achieved. This is due to the fact that international law is ill-conceived on the one hand, whereas it suffers to operate within the given power dynamics and constant changes that occur on a daily basis in the international system of governance. The findings of this chapter indicate that international law is simultaneously inefficient at addressing issues swiftly, often not having the power to do so as a result of national interests which hamper unanimous application of international legal standards, jurisdictional conflicts of interest, and the complexity of the lawmaking process. Hence, international law is both inefficient and ill-conceived according to every case presented, often suffering from drawbacks beyond its capacity to address and/or drawbacks associated with its functioning mechanisms which are not suited to function properly in the ever-changing and increasingly complicated system of global governance. Those setbacks ultimately constitute limitations for international law which can be exploited with malicious intent as is the case with cryptocurrencies, a revolutionary concept to currency and monetary systems which has been perverted and unfortunately is yet to be regulated properly by international legal mechanisms as will be observed.

## *Chapter 4: International Legal Dysfunction*

### **Crypto as a Facilitator of International Legal Violations**

As iterated recurrently throughout this thesis, international law as a body of legal codes of regulatory nature is ultimately frail. Looking at humanity's path thus far, it is apparent that power tends to corrupt and malicious intent is deeply rooted. Rather than using developments for the greater good, individuals are likely to (ab-)use innovation for self-serving ends at the expense, often being illegal. An innovation such as crypto is not exception to the aforementioned whereas its characteristics (notably anonymity and lack of regulation at the domestic or international level ever since its creation) have been a source of attraction for individuals who seek to bypass legal mechanisms and legal jurisdictions.

Having addressed the limitations of international law, in addition to breaking down crypto (and affiliated developments) and its implications on different intertwined areas, its role as a facilitator of international legal violations will be showcased throughout this chapter, in turn validating that the limitations of international law have contributed to the reliance on crypto in the pursuit illicit activity. This final chapter will provide pertaining evidence into the use of crypto in the pursuit of illicit activity such as, but not restricted, to international terrorism. The former will be complemented by a presentation of the gaps in international law concerned with crypto and affiliated developments. This will facilitate the task of suggesting an alternative to correct the course of development of international law when it comes to developments of such nature, building upon Jean D'Aspremont's theory in a constructive manner. Nonetheless, such an endeavor will face obstacles, which will be addressed in the same spirit.

## **A- Use of Crypto in Illicit Activities.**

Illegal activities fueled by the strategic use of blockchain-based cryptocurrencies are a big concern confronting several governments across the world today. These unlawful operations take advantage of the permissionless nature of blockchain networks for illegal trade, obfuscating the jurisdictions of blockchain users through anonymity, rendering federal and international legal rules inapplicable. As the demand for crypto grows, criminals will have more opportunity to hide behind the guise of presumed privacy and anonymity. Cryptocurrency is increasingly being utilized in a variety of illegal behavior, most notably as a payment and money-laundering tool for terrorist organizations among other activities which jeopardize international security or constitute violations of domestic laws.

Since the digitalization of money and accompanying regulations made it relatively impossible to transact discreetly, illegal monetary transactions and money laundering have become a barrier for criminal organizations and terrorist organizations. However, the rise of cryptocurrencies has ushered in a new era of terrorism financing and money laundering for tech-savvy terrorist groups like ISIS, Al-Qaeda, as well as other multinational crime syndicates (Ibrahim, 2019). For its compatibility to unlawful deals, transnational criminal syndicates formerly relied on the hawala system (relying on brokers to carry out transactions) to conduct international financial transactions. Cryptocurrencies, on the other hand, have provided them a more viable alternative to the hawala and systems and is more cost-efficient. Over time, there has been continual advancement in the world of cryptocurrencies, and new math-based coins known as alternative coins or Altcoins have developed. Omni Layer (MasterCoin), BlackCoin, and



Monero are examples of altcoins that are considered less intrusive and safer than Bitcoin (Dion-Schwarz, 2019). Furthermore, Zcash gives additional discretion, for example, through features such as the ability to conduct transactions while offline, making it extremely difficult for state authorities to track down illicit activities. Cases of terrorist financing using cryptocurrencies are rampant and increasing in recent years. Back in November 2018, a U.S. citizen of Pakistani origin was sentenced to 13 years of imprisonment for financing ISIS, a terrorist organization, with over \$150,000, of which almost half were in the form of cryptocurrencies as per the U.S. Department of Justice (2020). Some militant groups have even made cryptocurrency fundraising efforts. The Ibn Taymiyyah Media Centre, a pro-ISIS propaganda outlet based in Gaza, urged the terrorist group's global sympathizers to use the medium (crypto) to send their donations (Teichmann & Falker, 2020). In a similar vein, the Palestinian militant group Hamas has turned to cryptocurrencies to raise funds (Barone, 2019). The case of Hezbollah, pro-Iranian militant group and political party in Lebanon denounced as terrorist organization by the international community, provides significant insight into the use of crypto for illicit activity. As a terrorist organization affiliated with the Islamic Republic of Iran, Hezbollah has been subject to economic sanctions in similar fashion and its cash inflows from Iran have diminished. Moreover, Hezbollah's financial operations took a hit back in 2019 when an affiliated bank, Jammal Trust Bank, accused of laundering funds, facilitating the transfer of liquidity for the organization to fund clandestine operations, was shut down amidst U.S. sanctions (Barrington & Francis, 2019). The subsequent collapse of the Lebanese economy in following years and the losses of deposits within the banking sector constituted yet another blow to Hezbollah. Nonetheless, the

aforementioned obstacles did not hamper the organization's capacity to pursue its objectives as it adopted an alternative, cryptocurrencies. An interview conducted with a MENA geopolitical expert regarding Hezbollah and cryptocurrencies yielded insight into the processes that the organizations uses and how it has harnessed crypto. As per the expert in question, an entity such as Hezbollah (operating in a variety of nations such as Syria, Lebanon, Yemen, Germany, and others) conducts a massive number of financial transactions in order to secure data, materials, and to pay salaries to militants. As a result of the sanctions imposed, such tasks have become more difficult to fulfill which led to adoption of cryptocurrencies due to anonymity, lack of central governance and regulation, as well as the speed at which transactions can be conducted at any time of day. It is believed that Hezbollah receives funds from Iran in that form to supplement cash transferred through the *hawala* system or transported across territorial borders. Funds received in the form of cryptocurrencies are either transferred to Hezbollah's international operations in similar fashion, or converted to paper bills using the network of Tether (USDT) brokers across Lebanon for minimal fees ranging between 0 and 1%, ultimately laundering the money with no risks as no regulations are found to date. Tracking the transactions has proven to be an extremely difficult task due to the fact funds are transferred using hundreds, if not thousands, of crypto wallets which makes it seemingly impossible to follow the digital trail of all transactions.

In the face of the threat of proliferation of biochemical, radioactive, and nuclear materials, as well as narcotrafficking and illegal arms trafficking, the use of cryptocurrency for such component transactions cannot be overlooked. Most illicit transactions carried out by global terrorists and criminals nowadays are apparent on the

deep web. Cryptocurrency is the type of payment that deep web marketplaces accept. The dark web, also known as the dark net, is a network of encrypted websites that can only be accessed through a complex combination of security tools. Because of the underlying complexity and inability of tracking transfers on the dark net, the threat becomes more serious. With regard to the former, the case of the Silk Road 2.0, a former leading dark web marketplace for narcotics and weapons among other services shut down in 2014 by law enforcement, comes to mind. The Silk Road marketplace generated an estimated \$1.2 billion in sales between 2011 and 2013, with 150,000 consumers and 4,000 vendors participating (Malik, 2018). Investigation into the vendors of the Silk Road and similar illicit marketplaces indicates that terrorist organization benefit from such platforms in order to reap profits, whether directly as vendors, or through intermediaries.

Cryptocurrencies can be used for illicit activity that goes beyond security concerns. An aspect in which crypto can be used illicitly is the pursuit of Ponzi schemes. Ponzi schemes are financial fraud operations that entice people with the promise of huge gains. In reality, users are only compensated with the investments of new users who join the scheme; as a result, a Ponzi scheme implodes as soon as users stop engaging. Ponzi schemes began in the offline world 150 years ago and have since migrated to the digital world, first using the internet and more recently cryptocurrencies (Bartoletti et al, 2020). What distinguishes pyramid schemes using crypto mediums is the false sense of trustworthiness that people receive as a result of smart contracts, which are source codes whose correct implementation is ensured automatically without relying on a trusted authority. Crypto Ponzi schemes are attractive to investors for the following reasons (Bartoletti et al, 2020):

- Because smart contracts are "unmodifiable" and "unstoppable," no central government (including a court of law) could stop the scheme's implementation or reverse its consequences in order to compensate the victims. This is especially true for smart contracts that run on permissionless blockchains, which are managed by a peer-to-peer ecosystem;
- The fact that smart contracts' code is public and unchanging, and its implementation is automatically guaranteed, may give investors a false sense of trustworthiness. This may persuade investors to assume that the proprietor will not take advantage of their investment, that the plan would continue indefinitely, and that they will have a good chance of achieving the advertised interests.

Ponzi Schemes devised using crypto as a medium are created on a daily basis, whereas many fail to gain traction, but some certainly do. An example struck Lebanon back in October 2021, when a pyramid scheme known as BinancesFund (alluding to global crypto exchange Binance) defrauded the Lebanese people by over 300 million dollars in savings and pension funds (Abdul Malak, 2021). Amidst this revelation, some individuals have been hospitalized whereas others have called for law enforcement agencies to get involved as well as the legal system. Nonetheless, given the unregulated nature of crypto, central authorities have not been able to do anything in that particular case. Similar cases are evident when it comes to NFTs, whereas Ponzis are also common based on the promise that the item will increase in value and that several steps will be pursued to contribute to that increase, whereas in reality the project is abandoned once it is sold, leaving individuals with worthless NFTs. Due to the aforementioned, Banque du Liban, Lebanon's central bank, has issued separate circulars addressing the respective

risks of crypto and its affiliated developments given the inability of the international community and domestic jurisdictions from hampering the processes to date.

Illicit activity carried out using crypto as a medium is not restricted to the international realm and may be victimless crimes, such as tax evasion. By definition, as conveyed by an interviewed compliance expert, tax evasion is the unlawful non-payment or under-payment of taxes, typically involving making a false or no disclosure to tax authorities – for example, reporting fewer revenue, profits, or gains than what has been truly obtained, or overstating tax deductions. Traditionally, in an attempt to circumvent exposure to litigation, individuals and/or enterprises resorted to tax havens, a country that gives offshore corporations and foreign individuals reduced or no tax liability for their bank deposits. Nonetheless, this model is not always sustainable whereas whistleblower activity can jeopardize their dubious dealings and reveal tax avoidance as seen in the case of the Panama Papers (11.5 million leaked documents from one company, data whose analysis was published back in 2016 by the International Consortium of Investigative Journalists (ICIJ)), and more recently the Pandora Papers (11.9 million leaked documents from 14 companies in offshore tax havens, data whose analysis was published back in 2021 by the ICIJ). The former leaks have led, in part, to accountability as in the case of Harald Joachim von der Goltz who was convicted in the U.S. to imprisonment and restitution for “wire fraud, tax fraud, money laundering, false statements, and other charges” based on the revelations of the Panama Papers (IRS, 2020). Nations have pursued domestic taxation measures concerned with crypto earnings, but that does not extend to all countries similarly, ultimately creating crypto tax havens that can be used to circumvent taxation in a similar manner as per the compliance officer. Other steps taken

to avert taxation revolve around the movement of crypto holdings towards different wallets which makes it difficult to trace and more difficult to pinpoint tax values.

It is thus apparent that crypto is abundantly associated with illicit activity which can be detrimental to global security, as well as incurring economic losses for governments at the domestic level by offering alternatives for tax evasion and money laundering, as well as losses for individuals who fall victim to investment fraud schemes.

### **B- Where is Global Governance Lacking with regard to Crypto?**

As observed, crypto yields room for the perpetration of violations of different aspects of law, both domestic and international. The correlation between crypto and illicit activity raised the need to securitize crypto, turning subjects from conventional political issues into security considerations. A development of this nature can only be addressed from an international perspective as to unify efforts to counter detrimental impacts of crypto and its role as a medium for illicit activity. Whilst the limitations of international law, outlined throughout this thesis, facilitate the perpetration of the aforementioned crimes, several nations have pursued a path of domestic legislation concerned with crypto for different reasons. However, such measures are yet to prove to be efficient when it comes to halting, or at least diminishing, criminality associated with crypto. This has ultimately raised the following question: Where is Global Governance Lacking with regard to Crypto?

First, it serves to provide insight into the measures taken by different entities and how those materialized. One of the influential entities on global governance, the European Union, has taken several stances on crypto. Initially, an initiative known as the

EU regulatory framework for crypto-assets was launched by the European Commission to assess the impact of the technology and to mitigate the associated risks. On Thursday, the 31<sup>st</sup> of March 2022, the European Parliament adopted a draft legislation concerned with new rules to stop illicit flows in the EU, targeting crypto (European Parliament, 2022). All transfers of crypto-assets will be required to include evidence on the asset's origin and recipient, which will be made available to relevant authorities under the drafted regulations. Transactions from so-called unhosted wallets would also be covered by the rules (a crypto-asset wallet address that is in the custody of a private user). These asset transfers should be able to be tracked down using technological techniques. The goal is to make it possible to track crypto transactions and block questionable activities (European Parliament, 2022). The laws would not apply to person-to-person transfers made without the involvement of a third party, such as those made through cryptocurrency trading platforms, or among providers acting in their own capacity. The new requirements are part of a new anti-money laundering package that includes efforts to enhance EU anti-money laundering and anti-terrorist funding regulations. It addresses the present framework's flaws, such as inadequate implementation, sloppy oversight, and a lack of identification of fraudulent, which are apparent by looking at the Panama and Pandora Papers for instance and the violation that have taken place. Nonetheless, thus far, the measures taken by the European Union and its Parliament remain nothing but theoretical whereas their finalization requires extensive negotiations with member-states of the EU and their acceptance of the legislation, as well as their willingness to collaborate accordingly. The former will ultimately prove to be difficult, and will be comparable to the present frameworks for anti-money laundering and anti-terrorist

funding. It is, however, essential to pinpoint that the trajectory that the European Union has embarked upon is definitely bound to cause some changes, granted that those are enforced. This is apparent due to the observation of increased efforts to influence policy-making that the crypto industry leaders have pursued since (Howcroft, 2022). Reuters reveals that crypto industry giants have addressed a letter to over 27 EU (member-states) finance ministers on April 13<sup>th</sup> 2022, urging them to ensure that the EU Parliament projected legislations do not “go beyond rules already in place under the global Financial Action Task Force (FATF), which set standards for combating money laundering.” (Howcroft, 2022).

When it comes to economic global governance, one of the Bretton Woods Institutions, the International Monetary Fund (IMF), is regarded as influential stakeholders. Traditionally, the IMF seeks to ensure that all of its 190 member countries experience long-term growth and prosperity. It does so through by promoting policies that encourage financial stability and monetary cooperation, both of which are necessary for increasing productivity, job creation, and economic well-being (IMF, 2022). The IMF maintains a continuous policy discussion with the governments of its member-states in order to sustain stability and avert disruptions in the international monetary system. It examines economic conditions and makes policy recommendations for long-term development. In addition, the IMF keeps a close eye on regional and global economic and financial trends. With regard to crypto, an international organization which operates closely with nations and whose values on financial stability and sustainable economic policy are apparent, the International Monetary Fund does not hold the development of the sector and its incorporation with high esteem. The former is observed particularly in



the case of El Salvador (which has adopted Bitcoin as legal tender) and the stance of the IMF urging the nation to reverse its decision, conveying that such a step would lead to a strenuous relationship with the institution and make it difficult to benefit from loans (Martins, 2022). A March 2022 Working Paper published by the IMF, titled *Crypto, Corruption, and Capital Controls: Cross Country Correlations*, provides further insight into the stance of the institution, shedding light upon crypto flows and corruption, among other illicit activities. The findings of this working paper indicate that more crypto usage is empirically associated with higher perceived corruption and more intensive capital controls, according to cross-country regression research employing a general-to-specific strategy. Overall, IMF researchers believe that this evidence supports the rationale for regulating crypto usage, such as by mandating intermediaries to conduct know-your-customer processes, as well as a prudential principle given the rapid rise in macroeconomic relevance of crypto assets (Alnasaa et al., 2022).

Addressing global governance from a realist perspective requires us to highlight the contribution of nations, in addition to that of international and regional organizations (as presented in the sample of the European Union and the International Monetary Fund). With regard to global governance, the likes of the United States of America and the People's Republic of China remain key entities. In 2017, China specifically prohibited any exchange or financing transactions between fiat money and cryptocurrencies (Pilarowski & Yue, 2017), whereas the United States has included cryptocurrencies in its existing legal maze. China's endeavor is rooted in its quest to protect consumers and diminish illicit activity associated with cryptocurrencies, in addition to the mining schemes which had been concentrated in the nation for years. Because the 2017

Announcement makes no mention of cryptocurrency transactions outside of China, Chinese entrepreneurs and scammers have set up a slew of cryptocurrency transaction platforms internationally, posing as foreign businesses but preying on China's investing public (Xie, 2019). Investors are exposed to Ponzi schemes and scams because of this loophole, which is aggravated by a weak enforcement system. The blanket ban on cryptocurrency transactions creates an early public view that crypto is by its very nature deceitful. Such rules not only stifle meritorious scientific advancements, but they also risk jeopardizing China's state-led ambitions to develop its own crypto-currency. Rather than passing a blanket judgment on all crypto activities, the US strategy at least provides procedural clarity. The SEC, for example, does not dispute the legitimacy of underlying cryptocurrency transactions if the underlying securities are registered or acquired via appropriate exemptions (Xie, 2019). Although regulatory compliance comes at a cost, the United States' approach does not prevent worthwhile enterprises from receiving funds. Meanwhile, the Securities and Exchange Commission (SEC) and the Commodity Futures Trading Commission (CFTC) have been proactively weeding out fraud. Soon after China's declaration in 2017, the SEC established a Cyber Unit to investigate cyber-related crimes, such as fraud and market manipulation involving cryptocurrency transactions (Xie, 2019). However, relying on a disclosure-based system could lead to both over- and under-inclusion.

The unique stances held by the different influential actors offer a sample into the global purview of the crypto realm. Whereas different entities have pursued an individually tailored regulatory approach towards crypto, their impact is barely felt on a global scale as a result of their differences. This ultimately showcases that global

governance is lacking with regard to the crypto realm, especially when it comes to policy and legislation which requires unilateral application in order to be efficient. Under the present conditions, regulating and/or constraining crypto is not feasible whereas disparities facilitate the movement of illicit operations from one country to another and their continuation with ease. Global governance influential entities are inherently incapable of addressing crypto from an objective perspective, and are unable developing existing mechanisms addressing illicit activity to incorporate crypto due to a lack of total understanding, in addition to the political sway that crypto interest groups possess.

Although cryptocurrency appeared to force governments to choose between banning, tolerating, or cooperating with innovation, the reality of such initiatives demonstrates that the various regulatory measures and their effects on the market and the investing public demand a far more stringent approach. The former can only be achieved by adopting an international legal approach to crypto, one which would enforce unilateral application.

### **C- Adopting a Different Approach: Developing International Law to Constrain Crypto**

Enforcing governance through international legal mechanisms has been historically materialized with ambiguity and public opinion on its effectiveness is divided. However, making use of the lessons learned from international lawmaking and developing international law to constrain crypto will, in theory, amount to better regulation of crypto assets and reduce the perpetration of illicit activity using the medium in question. The trajectory opted mimics the creation of the International Criminal Court

and its Rome Statute, in addition to its operational mechanisms, in addition to international regulatory mechanisms such as the Financial Action Task Force (FATF) for instance.

The essence of the International Criminal Court, leading up to its creation, is traced back to the end of World War II and the subsequent changes observed, notably the Nuremberg Trials, as well as ad hoc tribunals such as the International Criminal Tribunal for former Yugoslavia (ICTY) or International Criminal Tribunal for Rwanda, all of which addressed war crimes in the given circumstances. Nonetheless, the temporary nature of those tribunals rendered them inefficient in the quest to counter the culture of impunity, but nonetheless set the basis for the future, notably in the late 1990s, when a multiplicity of nation-states conferred that establishing a permanent criminal court inspired by its ad hoc predecessors is the right move for global governance. The initial probe was launched by the nations of Trinidad and Tobago who raised the question to a United Nations commission to assess the possibility of creating a permanent criminal court back in 1989 (Bassiouni, 1996). This initiative gained support in the forthcoming years, especially from European and African nations. This ultimately led to the creation of the International Criminal Court when its founding treaty was adopted by the United Nations General Assembly in July 1998, in Rome (hence the Rome Statute). The ICC became operational on the 1<sup>st</sup> of July 2002 when its Statute had been ratified by over sixty nations.

Hence, the International Criminal Court was established out of a need to address a looming issue which had been affecting global governance and stability, growing under a culture of impunity. The case of crypto and associated violations is comparable whereas a

culture of impunity is evident given a lack of international unilateral legislation and regulation which facilitates the perpetration of violations by averting jurisdiction or relying on regulatory discrepancies between nation-states. As in the case of the founding background of the ICC (notably the ad hoc tribunals of temporary nature), available state-tailored regulation of crypto provides insight but is ultimately counter-productive as it does not work similarly or at the same pace. A working paper compiled by a Swiss-based think tank, the Basel Institute for Governance, in collaboration with The International Academy of Financial Crime Litigators, addresses the former and calls for increased inter-state and inter-organizational cooperation and cohesion to counter the proliferation of illicit activity associated with crypto and to sustain proper enforcement. One of the report's authors, Federic Paesano, told the Organized Crime and Corruption Reporting Project (OCCRP) that not all states follow the same standards or adopt them at the same speed. Paesano confirms previously iterated claims in his note with the OCCRP, conferring that “criminals exploit the gap in legislation between different countries, or go to jurisdictions where the rules are more relaxed in terms of anti-money laundering and know-your-customer checks,” (Neal, 2022), adding that investigation and accountability under available frameworks are lengthy given the need to cooperate between different nations in most, if not all, cases.

Calls for international regulation of crypto have been raised by influential entities such as the European Union, China, the United States of America, as well as international institutions such the International Monetary Fund. The former raises hope of success, if and when the international community embarks on a quest of international lawmaking. Per our beliefs, pursuing legislation in an international setting is the most adequate

approach whereas the laws will be incorporated into domestic legislation, and will extend authority to an institution of similar nature, most notably the Financial Action Task Force (FATF). The former will enable coordination and cooperation in fighting crypto-driven illicit activity internationally, as it continues to set standards and promote effective implementation of legal, regulatory and operational measures for combating money laundering, terrorist financing and other related threats to the integrity of the international financial system. The proposed international legislation would be codified into a binding treaty, inspired by the Rome Statute of the ICC and adapted to the pertaining issue:

**Article 1 – Introduction:** A permanent institution shall be established, and it shall have the power to exercise its jurisdiction over individuals, enterprises, and other entities for crimes associated with cryptocurrencies and associated developments as referred to in this treaty.

**Article 2 – Relation with Municipal Law and Institutions:** The international legislation on crypto and affiliated developments will be complementary to domestic legislation on financial crimes. The institution will subsequently work in intrinsic cooperation with domestic/regional law enforcement institutions and mechanisms to ensure efficiency.

**Article 3 – Legal Status and Powers of the Institution:**

1. The institution shall have international legal personality. It shall also have such legal capacity as may be necessary for the exercise of its functions and the fulfilment of its purposes;

2. The institution may exercise its functions and powers, as provided in this treaty, on the territory of any State Party and, by special agreement, on the territory of any other State.

**Article 4 – Violations within the Jurisdiction of the Institution:** The jurisdiction of the institution is limited to the crimes of concern to the international community as a whole and that constitute a threat to international security and to the integrity of the international financial system, carried out using crypto and affiliated developments:

- Money Laundering;
- Terrorism;
- Fraud;
- Tax Evasion;
- Non-Adherence to the Regulatory Mechanism under Article 9.

**Article 5 – Jurisdiction *ratione temporis*:** The institution holds jurisdiction only with respect to violations committed after the entry into force of the treaty, or after the accession of a new member-states solely.

**Article 6 – Preconditions to the exercise of jurisdiction:** A State which becomes a party to this treaty thereby accepts the jurisdiction of the institution with respect to the crimes referred to in article 4.

**Article 7 – Exercise of Jurisdiction:** The institution may exercise its jurisdiction with respect to a crime referred to in article 4 in accordance with the provisions of this treaty if:

- A situation in which one or more of such crimes appears to have been committed is referred to the FATF by a State Party;
- A situation in which one or more of such crimes appears to have been committed is referred to the FATF by the IMF and/or other non-governmental entities;
- The FATF has initiated an investigation in respect of such a crime.

**Article 8 – Referral of a Situation:** A Case may be referred to the institution if one or more crimes within the jurisdiction of the institution appear to have been committed requesting the FATF to investigate the situation for the purpose of determining whether one or more specific persons/enterprise/entity should be charged with the commission of such crimes. As far as possible, a referral shall specify the relevant circumstances and be accompanied by such supporting documentation as is available to the State referring the situation.

**Article 9 – Regulatory Mechanism:** The institution will enforce a crypto regulatory mechanism based on the following measures, whose non-adherence will amount to a violation of the treaty and thus of international legal processes:

- Know-your-customer: Identifying and verifying the identity of the individuals behind crypto-transactions by enforcing KYC requirements (Identification Documents, Biometrics, etc...) on the users of crypto platforms. This will enable the construction of a database of users.
- Addressing Anonymity: Anonymity yields room for the perpetration of violations. Regulatory measures enforced by the institution will necessitate the recording and



- reporting of all transactions carried out by users. Transactions of significant size must be authenticated and approved of by national institutions and the FATF.
- Creation of a global securities mechanism for cryptocurrencies: Securities must be provided for cryptocurrencies in order to protect investors, maintain transparency and efficiency, ultimately reducing risk and volatility.

**Article 10 – Applicable Law:** The institution shall operate in accordance with a legal code inspired by the legislation carried out by individual member-states, retaining efficiency and unilateral implementation as the foundation and the end-result. Where appropriate, applicable treaties and the principles and rules of international law will serve as applicable law.

**Article 11 – Liability:**

1. The institution shall have shared jurisdiction over natural persons pursuant to this treaty;
2. A person, enterprise, or other entity who commits a crime within the jurisdiction of the institution shall be individually responsible and liable for punishment in accordance with this treaty;
3. In accordance with this treaty, a person, enterprise or other entity shall be criminally responsible and liable for punishment for a crime within the jurisdiction of the treaty if that person:
  - (a) Commits such a crime, whether as an individual, jointly with another or through another person, regardless of whether that other person is criminally responsible;

(b) Orders, solicits or induces the commission of such a crime which in fact occurs or is attempted;

(c) For the purpose of facilitating the commission of such a crime, aids, abets or otherwise assists in its commission or its attempted commission, including providing the means for its commission;

(d) In any other way contributes to the commission or attempted commission of such a crime by a group of persons acting with a common purpose. Such contribution shall be intentional and shall either: (i) Be made with the aim of furthering the criminal activity or criminal purpose of the group, where such activity or purpose involves the commission of a crime within the jurisdiction of the treaty; or (ii) Be made in the knowledge of the intention of the group to commit the crime.

**Article 12 – Applicable Penalties and Sentencing:** Penalties for the perpetration of violations are assessed by a permanent council of legal experts elected by member-states for a 4-year non-renewable term. Sentencing is carried out by the permanent council in similar fashion, whereas a sentence is fulfilled within municipal facilities as per the nationality of the perpetrators.

**D- Projected Obstacles to Developing International Law to Constrain Crypto:**

Because of the myriad of legitimate concerns and limits that were discussed earlier in this thesis, international law has traditionally been regarded as utopian and rendered irrelevant in the current state of affairs. When it comes to the formation of international legal procedures to place constraints on cryptocurrency, a multitude of hurdles jump out. These barriers make it appear to be impossible to govern

cryptocurrency and the changes associated with it in a manner that is unilateral. Going back to the statement of William Woodruff, the shifting balance of power is what inherently dictates the outcome of global affairs, and the outcome of crypto regulation is no exception.

On the one hand, the first issue that may be confronted when it comes to restricting crypto and related advancements resides in the international willingness, or lack thereof. If there isn't enough international desire, then there isn't enough international willingness. While a number of countries, most notably China, have taken the stance that cryptocurrencies should be outlawed entirely, others have taken the position that they should be phased in over time so that users can become familiar with their capabilities while also being aware of the potential risks associated with doing so. The contentious nature of cryptocurrency makes it difficult, if not impossible, to govern its development in a unilateral fashion. As a result, there is no chance that international law will be able to successfully address the issue as a result of this. Along the lines of international willingness, as conferred by participants to the focus group discussions, several nations have chosen to observe the proliferation of crypto and its developments without taking a stance in an attempt to further understand the development and assess the potential benefits it may reap from its adoption, regulation, or abolition. This is done in an attempt to further understand the development and assess the potential benefits it may reap from adopting, regulating, or abolishing crypto. When looking back at the story of world politics, it can be seen that the trajectory has not changed at all, and state interests continue to be the only thing that drives the action of states. Taking the example of the International Criminal Court and the ratification of its Rome Statute, one can

clearly observe how state interests govern behavior and the authority of international law and its institutions. which provides in turn insight into why EU regulation and legislation is moving slowly as the interests of member-states constitute a major obstacle.

On the other hand, interest group politics are increasingly impactful when it comes to the adoption of legislation domestically, and internationally. An organization is considered to be an interest group if the members of that organization share common concerns and attempt to influence government policies that affect those concerns. An example of interest group which affects domestic legislation and foreign policy, hence international legal stances for example, is The American Israel Public Affairs Committee (AIPAC) which is regarded as one of, if not the most, influential interest group in the United States of America and has for long conditioned its stances on the international level. When it comes to the realm of crypto, interest groups are also evidently influential. Those may be an association of the global leading crypto exchange platforms such as Coinbase, Binance, Bybit, among others, as witnessed in the case of EU legislation, which attempt to curb international and domestic legislation that could curb their profits such as greater scrutiny, taxation, or steps against consumer anonymity and will. Other interest groups that can similarly influence acceptance of a treaty such as the one outlined above, are consumers and thus constituents of governments. Those are the main entities affected by further regulation, besides the enterprises, and will voice their concerns to their representatives against regulation, ultimately affecting decision-making and the stance of the nation.

## **Conclusion**

Ever since 2009, a new area of financial transactions dawned upon traditional systems through cryptocurrencies and their subsequent emergence. However, the gradual incorporation of cryptocurrencies into day-to-day activities has been accompanied by serious global implications, most notably when it comes to the global economies, global political affairs, and the environment. Given human nature's tendency to corrupt, a technology of such nature left unregulated was bound to be abused and weaponized to conduct illicit activity.

Cryptocurrencies have proven to be a disruptive development to global affairs whereas it has presented itself as a more efficient alternative to traditional transactional systems which is not bound by space and time, prioritizing the user and his/her interests through peer-to-peer transactions, hence eliminating any third party such as banks and traditional financial institutions. Moreover, crypto has asserted itself as a disruptive force within political circles whereas it has had repercussions on domestic politics and international politics as highlighted. Furthermore, the proliferation of crypto activity has simultaneously left its mark on the environment through a significant and increasing carbon footprint. At a time in which global governance is rather unstable and unpredictable, crypto is quite disruptive which has driven discourse in favor of regulation in order to ensure the protection of users and the continuity of traditional financial systems. Additionally, regulation is necessary to avert political deadlocks and the use of the technology as political leverage and inflict tension upon an already unstable political system operating in seemingly organized chaos. Lastly, regulation of crypto is crucial to avert further environmental deterioration.

Given its decentralized nature and the need to contain it simultaneously in a unified manner, regulation through municipal law is not a viable option. The former is attributed to the fact that crypto containment can only be done with unanimous application and with parity amongst member-states which cannot be guaranteed through municipal law due to national interests and gaps in legislation. Consequently, international law is resorted to as regulatory mechanism given its operational framework which binds nations to a unified code. However, a variety of setbacks hinder the development of international law as a regulatory mechanism all of which has facilitated the use of developments such as crypto with malicious intent and for the perpetration of illicit activity across the globe. The use of cryptocurrencies for illicit activity has been documented over the years and shared consensus regarding the need to curb this vice is found among nations, hence international legislation can be used to hinder the criminal use of crypto. The former can be done by taking inspiration from rigid international legislation such as the Rome Statute, and international regulatory mechanisms such as the Financial Action Task Force (FATF). The former remains a difficult task to accomplish due to setbacks. Ultimately, a change in the drivers of global governance is necessary to implement positive legislation and regulation. Until that day comes, the limitations of international law and ultimately of global governance will remain facilitators and contributors to instability and unpredictability, contributing to the reliance on cryptocurrencies and affiliated developments for illicit activity.

## References

- Abdul Malak, L. (2021, October 20). *Lebanese crypto holders fall prey to fraud crypto fund website*. UNLOCK Blockchain. Retrieved May 29, 2022, from <https://www.unlock-bc.com/81287/lebanese-crypto-holders-fall-prey-to-fraud-crypto-fund-website>
- Adeyemi, A., Yan, M., Shahidehpour, M., Botero, C., Guerra, A. V., Gurung, N., ... & Paaso, A. (2020). Blockchain technology applications in power distribution systems. *The Electricity Journal*, 33(8), 106817.
- Al Jazeera. (2021, September 8). *Lebanon's power problems: Serious talk but no easy fixes*. Oil and Gas News | Al Jazeera. Retrieved May 11, 2022, from <https://www.aljazeera.com/economy/2021/9/8/lebanons-power-problems-serious-talk-but-no-easy-fixes>
- Albrecht, C., Duffin, K.M., Hawkins, S. and Morales Rocha, V.M. (2019), "The use of cryptocurrencies in the money laundering process", *Journal of Money Laundering Control*, Vol. 22 No. 2, pp. 210-216. <https://doi.org/10.1108/JMLC-12-2017-0074>
- Alexis Collins, C. D. (2021, June). *Cryptocurrency and Other New Forms of Financial Technology: Potential Terrorist Financing Concerns and Liability*. Retrieved from chrome-extension://efaidnbmnnnibpcajpcgclefindmkaj/[https://www.clearygottlieb.com/-/media/files/alert-memos-2021/2021\\_06\\_25-terrorist-financing-concerns-and-liability-in-cryptocurrency-and-fintech-pdf.pdf](https://www.clearygottlieb.com/-/media/files/alert-memos-2021/2021_06_25-terrorist-financing-concerns-and-liability-in-cryptocurrency-and-fintech-pdf.pdf)
- Alnasaa, M., Gueorguiev, N., Honda, J., Imamoglu, E., Mauro, P., Primus, K., & Rozhkov, D. (2022, March). *Crypto, corruption, and capital controls: Cross-country correlations*. IMF. Retrieved June 4, 2022, from <https://www.imf.org/en/Publications/WP/Issues/2022/03/25/Crypto-Corruption-and-Capital-Controls-Cross-Country-Correlations-515676>
- Badea, L., & Mungiu-Pupăzan, M. C. (2021). The economic and environmental impact of bitcoin. *IEEE Access*, 9, 48091-48104.
- Barone, R., & Masciandaro, D. (2019). Cryptocurrency or usury? Crime and alternative money laundering techniques. *European Journal of Law and Economics*, 47(2), 233-254.
- Bartoletti, M., Carta, S., Cimoli, T., & Saia, R. (2020). Dissecting Ponzi schemes on Ethereum: identification, analysis, and impact. *Future Generation Computer Systems*, 102, 259-277.
- Bassiouni, M. C. (1996). Observations Concerning the 1997-98 Preparatory Committee's Work. *Denv. J. Int'l L. & Pol'y*, 25, 397.

- Burcher, C. U. (2019). *Cryptocurrencies and Political Finance*. Stockholm , Sweden: International Institute for Democracy and Electoral Assistance . Retrieved from chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.idea.int/sites/default/files/publications/cryptocurrencies-and-political-finance.pdf
- Can The Government Regulate Cryptocurrency?* (2022). Retrieved from The NYU Dispatch: <https://wp.nyu.edu/dispatch/can-the-government-regulate-cryptocurrency/>
- Cermak, V. (2017). Can Bitcoin Become a Viable Alternative to Fiat Currencies? An empirical analysis of Bitcoin's volatility based on a GARCH model. *An Empirical Analysis of Bitcoin's Volatility Based on a GARCH Model (May 2, 2017)*.
- Cherniei, V., Cherniavskiy, S., Babanina, V., & Tykho, O. (2021). Criminal Liability for Cryptocurrency Transactions: Global Experience. *European Journal of Sustainable Development*, 10(4), 304-304.
- Chohan, U. W. (2021). Decentralized finance (DeFi): an emergent alternative financial architecture. *Critical Blockchain Research Initiative (CBRI) Working Papers*.
- Cohen, H. G. (2007). Finding international law: rethinking the doctrine of sources. *Iowa L. Rev.*, 93, 65.
- Cuthbertson, A. (2022, March 1). *Bitcoin overtakes Russian ruble*. The Independent. Retrieved May 30, 2022, from <https://www.independent.co.uk/tech/bitcoin-price-russia-ruble-crash-b2025055.html>
- d'Aspremont, J. (2008). Softness in international law: A self-serving quest for New Legal Materials. *European Journal of International Law*, 19(5), 1075–1093. <https://doi.org/10.1093/ejil/chn057>
- Davenport, K. (2022, Jan). *Nuclear Weapons: Who Has What at a Glance*. Retrieved from Arms Control Association: <https://www.armscontrol.org/factsheets/Nuclearweaponswhohaswhat>
- De Vido, S. (2020). Virtual currencies: New challenges to the right to privacy? an assessment under the V AML directive and the GDPR. *Global Jurist*, 20(2) doi:<http://dx.doi.org/10.1515/gj-2019-0045>
- De Vries, A. (2018). Bitcoin's growing energy problem. *Joule*, 2(5), 801-805.
- De Vries, A. (2019). Renewable energy will not solve bitcoin's sustainability problem. *Joule*, 3(4), 893-898.
- Department of Justice. (2020, March 13). *Long Island Woman Sentenced to 13 Years' Imprisonment for Providing Material Support to ISIS*. The United States - Department of



Justice. Retrieved May 28, 2022, from <https://www.justice.gov/opa/pr/long-island-woman-sentenced-13-years-imprisonment-providing-material-support-isis>

- Dion-Schwarz, C., Manheim, D., & Johnston, P. B. (2019). *Terrorist use of cryptocurrencies: Technical and organizational barriers and future threats*. Rand Corporation.
- Efremenko, I. N., Panasenkov, T. V., Artemenko, D. A., & Larionov, V. A. (2018). The role of Crypto-currencies in the development of the Global Currency System. *EUROPEAN RESEARCH STUDIES JOURNAL*, XXI(Special Issue 1), 117–124. <https://doi.org/10.35808/ersj/1164>
- Ellis, J. (2011). General principles and comparative law. *European Journal of International Law*, 22(4), 949-971.
- Engle, E. (2015). Is bitcoin rat poison: Cryptocurrency, crime, and counterfeiting (CCC). *J. High Tech. L.*, 16, 340.
- European Parliament. (2022, March 31). *Crypto assets: New rules to stop illicit flows in the EU: News: European parliament*. Crypto assets: new rules to stop illicit flows in the EU | News | European Parliament. Retrieved June 3, 2022, from <https://www.europarl.europa.eu/news/en/press-room/20220324IPR26164/crypto-assets-new-rules-to-stop-illicit-flows-in-the-eu>
- Farell, R. (2015). An analysis of the cryptocurrency industry.
- FP Analytics. (2022, March 8). *What does Russia's removal from swift mean for the Future of Global Commerce?* Foreign Policy. Retrieved May 30, 2022, from <https://foreignpolicy.com/2022/03/08/swift-sanctions-ukraine-russia-nato-putin-war-global-finance/>
- Gailey, A. (2022, April). *Experts React to Crypto Price Volatility Amid Russian Invasion of Ukraine. Here's What Investors Should Know*. Retrieved from NextAdvisor: <https://time.com/nextadvisor/investing/cryptocurrency/experts-react-falling-crypto-prices-russia-ukraine/>
- Gardner, A. (2022, March). *How Wartime Tests Crypto's Strengths and Vulnerabilities*. Retrieved from Bloomberg: <https://www.bloomberg.com/news/articles/2022-03-11/how-wartime-tests-crypto-s-strengths-vulnerabilities-quicktake>
- Gerard, D. (2021, September). *El Salvador's Bitcoin Law Is a Farce The system doesn't work, the currency crashed, and the public hates it*. Retrieved from Foreign Policy: <https://foreignpolicy.com/2021/09/17/el-salvador-bitcoin-law-farce/>
- Grinberg, R. (2011). Bitcoin: An innovative alternative digital currency. *Hastings Science & Technology Law Journal*, 4, 160.

- Guzman, A. T. (2002). A compliance-based theory of international law. *Calif. L. Rev.*, 90, 1823.
- Helmersen, S. T. (2019). Finding ‘the most highly qualified publicists’: Lessons from the International Court of Justice. *European Journal of International Law*, 30(2), 509-535.
- Hileman, G., & Rauchs, M. (2017). Global cryptocurrency benchmarking study. *Cambridge Centre for Alternative Finance*, 33, 33-113.
- Hollis, D. B. (2005). A comparative approach to treaty law and practice. In *National Treaty Law and Practice* (pp. 1-58). Brill Nijhoff.
- Houben, R., & Snyers, A. (2018). *Cryptocurrencies and blockchain: Legal Context and Implications for Financial Crime, Money Laundering and Tax Evasion*.
- Howcroft, E. (2022, April 19). *European crypto industry steps up efforts to influence EU policy*. Reuters. Retrieved June 3, 2022, from <https://www.reuters.com/technology/european-crypto-industry-steps-up-efforts-influence-eu-policy-2022-04-19/>
- Ibrahim, S. A. (2019). Regulating cryptocurrencies to combat Terrorism-Financing and money laundering. *Stratagem*, 2(1).
- IMF urges El Salvador to remove Bitcoin as legal tender*. (2022, Jan). Retrieved from BBC: <https://www.bbc.com/news/world-latin-america-60135552>
- IMF. (2022). *What is the IMF?* IMF. Retrieved June 4, 2022, from [https://www.imf.org/en/About/Factsheets/IMF-at-a-Glance#:~:text=The%20International%20Monetary%20Fund%20\(IMF,%2C%20and%20economic%20well%2Dbeing](https://www.imf.org/en/About/Factsheets/IMF-at-a-Glance#:~:text=The%20International%20Monetary%20Fund%20(IMF,%2C%20and%20economic%20well%2Dbeing).
- IRS. (2020, September 21). *U.S. taxpayer in Panama papers investigation sentenced to four years in prison*. Internal Revenue Service. Retrieved May 31, 2022, from <https://www.irs.gov/compliance/criminal-investigation/us-taxpayer-in-panama-papers-investigation-sentenced-to-four-years-in-prison#:~:text=Harald%20Joachim%20von%20der%20Goltz,false%20statements%2C%20and%20other%20charges>.
- Jafari, S., Vo-Huu, T., Jabiyev, B., & Mera, A. (2018). Cryptocurrency: A challenge to legal system. *Reza, Cryptocurrency: A Challenge to Legal System (May 2, 2018)*.
- Kathryn White, A. G. (2022, March). *Cryptocurrency regulation: where are we now, and where are we going?* Retrieved from World Economic Forum: <https://www.weforum.org/agenda/2022/03/where-is-cryptocurrency-regulation-heading/>
- Lautissier, H. (2021, November 14). *In Lebanon, bitcoin is proving to be a safe bet*. Retrieved from Middle East Eye: <https://www.middleeasteye.net/news/lebanon-economic-crisis-bitcoin-currency>

- Majumder, A., Routh, M., & Singha, D. (2019). A Conceptual Study on the Emergence of Cryptocurrency Economy and Its Nexus with Terrorism Financing. In *The Impact of Global Terrorism on Economic and Political Development*. Emerald Publishing Limited.
- Malik, N. (2018). Terror in the dark: how terrorists use encryption, the darknet, and cryptocurrencies. *The Henry Jackson Society*.
- Marian, O. (2013). Are cryptocurrencies super tax havens. *Mich. L. Rev. First Impressions*, 112, 38.
- Martin, E. (2022, January 25). *Ditch Bitcoin: IMF Urges El Salvador to Rethink Crypto*. Bloomberg.com. Retrieved June 4, 2022, from <https://www.bloomberg.com/news/articles/2022-01-25/imf-board-urges-el-salvador-to-ditch-bitcoin-as-legal-tender>
- Mcwhinney, J. (2021). *Why Governments Are Wary of Bitcoin*. Retrieved from Investopedia : <https://www.investopedia.com/articles/forex/042015/why-governments-are-afraid-bitcoin.asp>
- Meyer, T. (2013). From contract to legislation: The logic of modern international lawmaking. *Chi. J. Int'l L.*, 14, 559.
- Milewski, D. (2020, January 15). *HSB survey finds one-third of small businesses accept cryptocurrency*. Business Wire. Retrieved May 8, 2022, from <https://www.businesswire.com/news/home/20200115005482/en/HSB-Survey-Finds-One-Third-Small-Businesses-Accept>
- Milisavljević, B., & Čučković, B. (2014). Identification of custom in international law. *Anali Pravnog fakulteta u Beogradu*, 62(3), 31-51.
- Mora, C., Rollins, R.L., Taladay, K. *et al.* Bitcoin emissions alone could push global warming above 2°C. *Nature Clim Change* 8, 931–933 (2018). <https://doi.org/10.1038/s41558-018-0321-8>
- Mouna Hazgui, S. D. (2022, April). *How the Russia-Ukraine conflict has put cryptocurrencies in the spotlight*. Retrieved from The Conversation: <https://theconversation.com/how-the-russia-ukraine-conflict-has-put-cryptocurrencies-in-the-spotlight-180527>
- Noked, N. (2018). Tax evasion and incomplete tax transparency. *Laws*, 7(3), 31.
- Patel, M. (2022, March 25). *How Cryptocurrencies could impact geopolitics and change the nature of money*. Retrieved from The Indian Express : <https://indianexpress.com/article/research/how-cryptocurrencies-could-impact-geopolitics- and-change-the-nature-of-money-7829747/>

- Pilarowski, G., & Yue, L. (2017). China Bans Initial Coin Offerings and Cryptocurrency Trading Platforms. *China Regulation Watch*, 3.
- Pimentel, B. (2022, May). *The Ripple-SEC legal brawl could be a game-changer for crypto*. Retrieved from Protocol: <https://www.protocol.com/fintech/ripple-sec-xrp-lawsuit-trial>
- Rajamani, L. (2016). The 2015 Paris Agreement: Interplay between hard, soft and non-obligations. *Journal of Environmental Law*, 28(2), 337-358.
- Sarmah, S. S. (2018). Understanding blockchain technology. *Computer Science and Engineering*, 8(2), 23-29.
- Sayed, M. N., & Abbas, N. A. (2018). Impact of crypto-currency on emerging market focus on gulf countries. *Life Science Journal*, 15(1), 92-97.
- Simmons, B. (2000). International Law and State Behavior: Commitment and Compliance in International Monetary Affairs. *American Political Science Review*, 94(4), 819-835. doi:10.2307/2586210
- Stoll, C., Klaaßen, L., & Gallersdörfer, U. (2019). The carbon footprint of bitcoin. *Joule*, 3(7), 1647-1661.
- Tama, B. A., Kweka, B. J., Park, Y., & Rhee, K. H. (2017, August). A critical review of blockchain and its current applications. In *2017 International Conference on Electrical Engineering and Computer Science (ICECOS)* (pp. 109-113). IEEE.
- Teichmann, F. M. J., & Falker, M. C. (2020). Cryptocurrencies and financial crime: solutions from Liechtenstein. *Journal of Money Laundering Control*.
- Walton, J. (2014). Cryptocurrency public policy analysis. *Available at SSRN 2708302*.
- Xie, R. (2019). Why China had to ban cryptocurrency but the US did not: a comparative analysis of regulations on crypto-markets between the US and China. *Wash. U. Global Stud. L. Rev.*, 18, 457.
- Siron, D., & Paesano, F. (2022, May). *Working Paper 38: Cryptocurrencies in Asia and beyond: Law, regulation and enforcement*. Basel Institute on Governance. Retrieved June 5, 2022, from <https://baselgovernance.org/publications/wp-38>
- Neal, W. (2022, May 19). *Experts call for greater international collaboration on Crypto-Regulation*. Organized Crime and Corruption Reporting Project . Retrieved June 5, 2022, from <https://www.occrp.org/en/daily/16341-experts-call-for-greater-international-collaboration-on-crypto-regulation>