

Group Of Twenty (G20)

The Question of Cryptocurrencies



Forum:	Group Of Twenty (G20)
Issue:	The Question of Cryptocurrencies
Student Officer:	Luc Gemassmer
Position:	President of the Group of Twenty

Introduction

As the world increasingly becomes more interconnected through globalization and the reduction of borders and trade barriers, the methods in which we interact with each other ultimately begin to change. As a result of these process working in tandem with the advancement in technology, our common methods of payment such as cash and credit cards have begun to become outdated. This has led to the creation crypto currencies.

Cryptocurrencies are a digital asset used to work as an alternative method of exchange, using strong cryptography as a method of security, verifying transaction results, controlling the creation of additional units and securing financial transactions.

Cryptocurrency is a digital currency and relies on the use of decentralized systems, in comparison to our typical electronic currencies which are controlled and manipulated by a central bank. Furthermore, this cryptocurrency serves as a method and additional pathway of exchanging value between multiple parties, without having to pass through multiple channels, i.e. banks, governments and other third parties. Many cryptocurrencies operate using a blockchain system, and further serves as public financial transaction database. Bitcoin, first released in 2009, is considered to be the first decentralized cryptocurrency, however since then there have been over 4,000 alternative coins created (“Cryptocurrency”). Cryptocurrency differs from traditional currencies in one main way which has since made it a very attractive payment system, it can’t be manipulated and monitored by the government; transactions are secure, untraceable and entirely anonymous.



In centralized banking systems, governments control the supply of money by printing a determined amount of fiat money. Most cryptocurrencies are designed so that production will gradually decrease, placing a specific cap of the amount of that coin which is in circulation. Cryptocurrencies are designed to have faster, safer and more reliable transactions than our conventional forms of payment. Unlike a traditional system where there is almost always a third party in the transaction, whether it be the central bank, the government or a transaction service provider like PayPal, cryptocurrencies eliminate the middleman and allow for users to directly transact with each other and store their money themselves.

Definition of Key Terms

Block Chain

Blockchain is the initial technology that most of the structure of modern day cryptocurrencies are based on. Essentially Blockchains are ledgers which are distributed to the users of the coin and further secured with cryptography. They can be accessed publicly, however can only be updated by the owners of the data. Instead of relying on a single centralized server to contain the entire network, the data is copied and shared across thousands of computers worldwide.

Cryptocurrency

Cryptocurrency is a digital currency which utilizes blockchain technology and cryptography in order to regulate the generation of the currency, verify the transfer of funds and operate independently of a central bank or organization.

ICO (Initial Coin offering)

Initial coin offerings are like an IPO however in the digital cryptocurrency market. Startups issue out a select amount of their own token or coin in exchange for a well know



cryptocurrency like Ether or Bitcoin. It is essentially a method of crowdfunding on the ethereum or Bitcoin platforms.

Stable Coin

One of the most important aspects of the currency is its volatility to change, i.e. does the coin change in market value very quickly? A stable coin is a cryptocurrency with an extremely low volatility, making it more attractive for daily transactions than other alternative coins.

Market cap

Market cap is the total value of the entire market of coins of a specific cryptocurrency, i.e. the total supply of coin in a market multiplied by a single coin's value.

Mining

Coins are created through a process known as Mining. This is the process of trying to solve the next piece in the blockchain. It involves the process where transactions are verified and added to the public ledger, where recent transactions are compiled into blocks. However, one of Cryptocurrencies major downfalls is the massive degree of computer processing power which is required to effectively

Address

All coins have an address which essentially informs the users of the coins digital location. The address is the location from which the currency is received, sent and held. The address is typically a long string of alphanumeric characters.



General Overview

The most prominent feature of cryptocurrencies and the main reason for their recent uproar in popularity is the use of a decentralized network to carry out transactions. Unlike current currency, cryptocurrencies have no intrinsic value and is not redeemable for another commodity such as gold. Cryptocurrency also has no physical form and exist only in the network. Finally, the supply of said cryptocurrency is not determined by a central bank and as a result allows for secure anonymous transactions solely between two individuals. Cryptocurrencies allow for the potential for positive change in how we distribute money, however there are also problems and risks with using currencies like Bitcoin. This leads us to the question of Cryptocurrencies and realizing how we must regulate them to some extent in order to ensure a stable and viable form of payment and currency.

While Cryptocurrencies provide advancements in the way we distribute, store and produce money, there are several critical flaws in the current cryptocurrency system, which limit its usability. However, as the technology progresses solutions to these small problems will become more apparent and allow for a larger database of users to implement cryptocurrency as their income storage method.

Current Issues with Cryptocurrencies

Although currently Cryptocurrencies like Bitcoin and Ethereum show promise in allowing individuals to switch to a cryptocurrency based lifestyle, however there are still many limitations to the system which decrease practicality and usability. Currently most cryptocurrencies have a negative environmental impact due to the large amount of energy that is required to mine the coin. Besides this energy Issue, currently bitcoin blockchain performance is very slow, requiring an average of 10 minutes to create a block. Finally, one of the biggest issues with bitcoin is that like most cryptocurrency it is very volatile to changes in price. This results in the viability and practicality of the coins being reduced. Prices are so



volatile that two transactions only minutes apart could be very different. Fluctuation in price as well as the delay required to complete transactions distracts from the idea of having a peer to peer exchange system. In order to overcome these issues, the blockchain technology must continue to progress and advance, however we must realise that these initial technologies such as bitcoin can not be relied upon as the forefront of this technology.

Potential for Cryptocurrencies to facilitate positive change

Both Professor Ferdinando Ametrano and Professor David Yermack after a recent conference on the 6th of February 2018 agreed that many of the economic and political challenges that society currently face could be solved through the use of Cryptocurrencies. Such currencies allow individuals to send money without the interference of banks and other third parties. Cryptocurrencies also have the ability to not be duplicated or manipulated due to the security of the blockchain structure and cryptography. Currently third parties such as central banks regulate how we use our money, however if cryptocurrencies were used there would be no interference and transferred between multiple parties would work without any issues or complications. Cryptocurrencies have allowed for the problems which are associated with centralised government controlled currencies to be eradicated. With traditional currencies the government can control and manipulate the currency how they see fit, which can possibly lead to hyperinflation, as governments print more money to reduce debt. Crypto currencies help to solve these issues by shifting and sharing control and responsibility to the society of users via software. Cryptocurrencies are important as they allow the public to take full control of their financial activities. Blockchain based cryptocurrencies also provide an alternative to the banking system, providing relief to people who can't afford or don't have access to traditional banking. This is very crucial for individuals living in LEDC where it is very common to have individuals without traditional banking institutions. Over 2 billion adults in Africa, the Middle East, and Southeast Asia are dependent on family and friends to perform financial transactions. Crypto currencies allow these individuals to better interact with society and transfer income into the domestic



economy, theoretically leading to more economic growth. However, all the benefits that cryptocurrencies provide with the decentralisation of current transactional services would be futile given that transaction fees continue to fluctuate and grow in costs.

Major Parties Involved

United States

Currently the United States have no coherent and explicit description of its cryptocurrency regulation plan. Currently the major work being done on the issue is by the Securities and Exchange Commission (SEC), warning potential investors of the risks of cryptocurrencies, even halting several ICO's. The CFTC or the Commodity futures trading commission became the first U.S. regulator to allow for cryptocurrency derivatives to trade publicly (Cornish). Currently together with the Financial Stability Oversight Council (FSOC) had mentioned working towards exploring a national cryptocurrency market place, but at the same time preventing currencies like bitcoin from becoming a barrier from the law when making transactions. In the US market, cities like New York have been involved in the creation of systems such as "BitLicense", further providing stability and regulating exchanges. However unlike certain Japanese systems, many individuals consider the restrictions to harsh, leading to less efficiency and stirring up problems. Furthermore, currently as of January 2018, there are only 4 companies that have been awarded BitLicense in the US (Rooney). Currently according to the Financial Crimes Enforcement Network as of the 27 of March 2018 BitCoin is not legal tender. FinCEN, a bureau of the Treasury Department, said in 2013 that "virtual currency does not have legal tender status in any jurisdiction".

Japan

Although Japan isn't particularly liberal towards the digital currency regulation, currently it is one of the leaders and forefronts of cryptocurrency in the Asian market. In



recent events the hack of a Japanese exchange on January 26th 2018 resulted in a major loss of NEM Coins, forcing closer oversight from the local financial services agency (FSA). Japan is also currently a global leader in the market development of cryptocurrencies, pioneering safe systems and regulations in order to allow the exchanges to flow in a smooth and effective manner. Most of the development and reliability in the system is due to Japan's strong legal system providing support to the industry and allowing the development of solid credibility among multiple individual investors. As of December 26 2017, Japan had a total of 16 companies operating cryptocurrency exchanges (Rooney). However, for a viable and sustainable system to be implemented more companies must begin to operate on cryptocurrency exchanges, which would further provide a larger database of information to gather feedback from.

China

China unlike most countries has been rapidly increasing their actions in order to clamp down on the development, production and use of cryptocurrencies. China has currently implemented several laws and regulations, which restrict firms and consumers from freely using blockchain based coins like Bitcoin. Starting by banning ICO's, china has currently ordered banks to freeze accounts associated with cryptocurrency exchanges, kicking out bitcoin miners, and finally initiating a nationwide ban on all internet sites related to things on cryptocurrency trading. However, this could be detrimental to the market as Chinese bitcoin miners made up over 50 percent of the global mining population, not to mention the adoption of crypto currencies in china increased at a rate higher than any other country (Cornish). All of this is done is an attempt on stemming capital outflows and reducing corruption within the nation. Currently in china Bitcoin is not legal tender and all bitcoin trading in china is legal according to several policies.

DAO (Decentralized Autonomous Organisation)



DAO or the Decentralized Autonomous Organisation is a form of investor directed venture capital fund. The objective of the DAO is to provide an example of a decentralised business model in organising commercial and non-profit enterprises. As the DAO is a stateless organisation and not tied to any particular nation, many questions are continuously asked on how government regulators would deal with a stateless fund. In late 2016 the DAO was delisted from trading on major exchanges such as Poloniex and Kraken. In 2016 Users exploited a vulnerability in the DAO code, which resulted the the overall Ethereum community splitting the coin into two different blockchains

United Kingdom

The UK like several countries listed above currently views Bitcoin and other cryptocurrencies as non-legal tender. The UK views any other currency as non-legal tender and states that only the national currency, the sterling, as legal tender. However, the UK also states through several policies that the exchange of cryptocurrency is legal, but must be registered with the Financial Conduct Authority. The Financial Conduct Authority called crypto assets "high-risk, speculative products," in a warning to consumers in November 2017. The UK also currently views cryptocurrencies like bitcoin as sub par currencies as they are unable to store value, with the current value constantly fluctuating drastically

Timeline of Key Events

As this is only a very recently developed technology, there is not a very long and intricate list of events when looking at the history of cryptocurrencies.

Date	Description of event
2008	Bitcoin and white paper introduced
2009	First Bitcoin transaction
2009	Bitcoin Exchange Rate Established



2011	First Major Theft of bitcoin; US\$375,000 stolen
2016	Bitcoin is becoming more practical; number of bitcoin ATMs rises from 500 to about 900
2017	Several Companies begin to use ICO in order to raise money
2017	Over 1000 different cryptocurrencies exist since 2008
2017	Market cap exceeds \$100 Billion
2017	Japan passes a law to accept bitcoin as a legal payment method

Previous Attempts to Resolve the Issue

Currently there has been very little done to limit and restrict the use of cryptocurrencies. Because this is such a new area of finance it is very difficult to fully understand the ramifications and positive effects. However, in a few countries such as Japan and China, where the technology has seen a rapid increase in users, governments are quickly applying regulations and laws to the application and use of these coins. A clear example of the regulation and restriction of bitcoin use is in the case of China, as recently they have banned and classified most activity in relation to the subject as illegal. In the UK and possibly the EU new regulations are being implemented in the following years in order to create greater transparency between the consumer and the government. This will include rules forcing most traders to reveal their online identities, as well as online platforms which carry out the trading of cryptocurrencies will be required to carry out due diligence on buyers. Governments hope to create a stable system which offers cheap, frictionless international transactions, which can hopefully provide an alternative to our current banking system.

Possible Solutions

In order to better regulate and protect users of cryptocurrencies, the overall understanding of cryptocurrencies and how they work must be improved. Therefore,



governments should provide better access to knowledge and resources on the Issue, which can further allow users to make more responsible decisions. In order to make sure the technology is the most effective and efficient as it can possibly be more funds must be invested to the innovation and development of this technology. Another possible solution to ensure that exchanges and transactions can be properly regulated is to allow for the cryptocurrency market to flow through an exchange. However, at the same time this goes against the entire initial system which was set up. The entire Idea behind Cryptocurrencies is cutting out the middleman and allowing for a peer to peer payment system. In order to establish a framework in which the cryptocurrency market can flourish, more experts on blockchain as well as economists and policy experts must be hired so that governments can have the best possible understanding of the situation. Currently many ICOs are managed by individuals who are not necessarily the most competent when dealing with cryptocurrencies. If the government was able to create a proper framework for ICOs to exist as well as letting exchanges deal with the process, there would be fewer problems within the system. These could further lead to an increase in cryptocurrencies rate of growth as regulation lends credibility and engenders trust in the user. One thing is for certain, that in order to take advantage of all of the beneficial factors and systems that these cryptocurrencies have to offer, a framework containing rules and regulations must be implemented as soon as possible.

Bibliography

- Cornish, Chloe. "Growing Number of Cryptocurrencies Spark Concerns." *Financial Times*. Financial Times, 09 Jan. 2018. Web. 21 June 2018.
- "Cryptocurrency." *Wikipedia*. Wikimedia Foundation, 20 June 2018. Web. 21 June 2018.
- Elnaj, Saeed. "The Problems With Bitcoin And The Future Of Blockchain." *Forbes*. Forbes Magazine, 30 Mar. 2018. Web. 21 June 2018.
- FundYourselfNow. "Major Problems in the Cryptocurrency Market – Hacker Noon." *Hacker Noon*. Hacker Noon, 25 Jan. 2018. Web. 21 June 2018.



- "A Glossary of All the Cryptocurrency Terms You Need to Know." *Cryptominded*. N.p., 29 June 2017. Web. 21 June 2018.
- Magazine, Bitcoin. "Cryptocurrency Regulation in 2018: Where the World Stands Right Now." *The Next Web*. N.p., 27 Apr. 2018. Web. 21 June 2018.
- Matsutani, Minoru. "Japan a Global Leader in Cryptocurrency Investment." *The Japan Times*, 23 Jan. 2018, www.japantimes.co.jp/news/2018/01/23/business/japan-global-leader-cryptocurrency-investment/.
- Middelman, Max. "21 Terms to Understand Cryptocurrency – The Mission – Medium." *Medium*. Augmenting Humanity, 16 Dec. 2016. Web. 21 June 2018.
- Mills, Brad, Dmitry Buterin, Harry Baines, Ameer Rosic, Jack, Ov Mirza @ovmirza, Sarah Jones, Pulkit Chaturvedi, Sophia Brown, Mike Ray @blockchain1, Stephen Truex, Vadim Ezhkov, Vadim Ezhkov @ezhkov, Leon Luigi @luigitoscanimail, John Miller, and Nirmalya Sengupta. "What Is Cryptocurrency: Everything You Need To Know [Ultimate Guide]." *Blockgeeks*. N.p., 01 Jan. 1968. Web. 21 June 2018.
- Rooney, Kate. "Your Complete Guide to Cyprocurrency Regulations around the World and Where They Are Headed." CNBC, CNBC, 27 Mar. 2018, www.cnbc.com/2018/03/27/a-complete-guide-to-cyprocurrency-regulations-around-the-world.html.

