DIGITAL CURRENCY LIKE BITCOIN WITHIN THE INTERNATIONAL MONETARY SYSTEM FIELD

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ABSTRACT
Berbicara Transaksi, saat ini tidak lagi hanya terbatas pada pola tradisional, melainkan sudah berkembang menjadi lebih jauh ketika Transaksi difasilitasi oleh system elektronik dengan menggunakan teknologi intrenet, sehingga kapanpun dan dimana pun transaksi dapat dilakukan tanpa bertatap muka langsung. Dalam hal metode pembayaran, teknologi ini juga berkembang. Baru-baru ini dikenal juga istilah mata uang digital. Salah satunya adalah Bitcoin. Ini adalah mata uang digital dengan nilai pasar terbesar. Ini adalah sistem pembayaran elektronik yang didasarkan pada sistem matematika. Idenya adalah untuk menghasilkan mata uang independen yang tidak terikat pada otoritas pusat tertentu, dengan biaya transaksi yang sangat rendah. Mata uang digital menggunakan konsep kriptografi untuk menyediakan fungsi keamanan dasar, seperti memastikan bahwa Bitcoin hanya dapat digunakan oleh mereka yang memilikinya dan tidak dapat diduplikasi. Munculnya mata uang ini menimbulkan kontroversi di banyak negara karena sifatnya yang tidak diatur. Studi ini meneliti Bitcoin apakah dikategorikan sebagai uang berdasarkan konsep uang dan bagaimana tiga lembaga moneter internasional utama (*IMF*, *WTO*, Bank Dunia) merespons kehadirannya dengan analisis dasar menggunakan konsep cyberpolitik. Akhir dari penelitian ini menyimpulkan bahwa Bitcoin belum sepenuhnya memenuhi kriteria sebagai mata uang dan tidak ada aturan khusus mengenai keberadaan mata uang digital.

Keywords : Currency, digital currency, cyberpolitics, international monetary system, Bitcoin

Introduction

Electronic business transactions using internet media lately have grown so rapidly. Not only about the various type at process of transactions, but also the type of alternative payment instruments are increasingly varied not only using fiat money. In recent years, payment tools in the virtual world called digital currency have begun to emerge. This kind of money applies universally and does not follow the currency of certain countries which are controlled by central banks. Digital money sales market is on demand from its users so that the exchange rate of it is very volatile. One of these has been present a digital currency such as bitcoin which can be -one of - solutions of payment without incriminate user with high cost transaction.[1]

Bitcoin is a digital currency which can be used to transact electronically. Beginning in 2009, bitcoin was created by a software developer named Satoshi Nakamoto. It's an electronic payment system based on mathematical systems. The idea is to produce an independent currency that is not tied to a particular central authority, with very low transaction costs. This kind of digital currency uses a database that distributed and spread to the nodes of a Peer-to -Peer (P2P) network to a transaction journal and uses cryptographic concepts to provide basic security functions, such as ensuring that it can only be spent by people who have it and cannot duplicated.[2] Digital currency is also called cryptocurrency because the security system over this currency uses cryptography[3]

[1] Pura, R. N. (2015). *Cybercrime melalui bitcoin*. Surabaya, Indonesia: Perpustakaan Digital Universitas Airlangga.

[2] Pura, R. N. (2015).

[3] Learning how to keep data confidential to be safe when sent from the sender to the recipient.

Bitcoin provides several benefits to its users. The potential increasing value because limited number of it and provide investment benefits to its users. In addition, the use of bitcoin is very practical and does not need high cost transactions from users. Bitcoin circulatory mechanism doesn't have centralized authority, it is free for users to transact anything and whenever they want. Until now, the use of bitcoin as a digital currency has been done by many online businesses as a means of payment. The advantages of using bitcoin is that there is no limit or standard rule in buying and selling business, but both sellers and buyers will be very difficult to track their existence or called anonymous.[4]

Bitcoin is trying to revolutionize the next financial landscape by turning it into a purely digital decentralization. It changes the concept of currency by no longer printed by a country, no longer guaranteed by anything, but purely created and guaranteed by its own users. The price system is no longer based on interfere government but purely based on supply and demand. Bitcoin created systems based on mathematics and can't be influenced by any government or any parties. The nature of the technology that requires the majority consensus when need a system changes makes it very similar to the democratic system.[5]

The spread of bitcoin is now almost all over the world. Some countries have flatly rejected it as an online transaction tool. These countries' rejection reason is because they think it is unsafe. Besides it's also feared it will have a negative impact on the stability of electronic in domestic transactions. But like the two sides of the coin, behind the controversy in the presence of this digital currency, support for it was not exactly small. A study from the European Central Bank in 2012 shows that the use of digital currencies such as bitcoin can grow in the near future. The financial crisis that occurred at that time in Spain has caused the price of bitcoin tapered, causing concern the government to transfer the euro to bitcoin.

The demands of bitcoin in Europe are increasing and some have proposed installing Bitcoin ATMs. As the world struggles to recover from the recent global economic crisis, more and more people are losing confidence in traditional currency and turning to bitcoin as an alternative form of payment that offers privacy and ease of use.[6] Even Liberland, an area that calls itself a small country in Europe, makes bitcoin their national currency.[7] Meanwhile, in Den Haag (Netherlands) there's an area that uses bitcoin as the primary payment in every transaction they make; the region is known as "*The Hague Bitcoin Boulevard"*.[8] The Chief of Dutch central bank's research said they still researching that *De Nederlandsche* Bank is not in a "against position" to bitcoin.[9]

4 Danella, T. D. (2015). Bitcoin sebagai alat pembayaran legal dalam transaksi online. *Jurnal Ilmiah Fakultas Hukum Brawijaya*. Retrieved from http://hukum.studentjournal.ub.ac.id/index.php/hukum/article/view/898

5 Darmawan, O. (2014). *BITCOIN:Mata uang digital dunia*. Jakarta, Indonesia: Jasakom.

6 Plassaras, N. A. (2013). Regulating digital currencies: Bringing bitcoin within the reach of the IMF. *Chicago Journal of International Law*, *14*(1).

7 Smart, E. (2016, October 4). Liberl and to celebrate its first annual "Liberty Day" event. *Cryptocurrency News and Market Updates*. Retrieved from https://www.cryptocoinsnews.com/liberland-celebrate-first-annual-liberty-day-event/

8 Kallgren, J. (2014, March 11). Dutch streets adopt cryptocurrency, become 'Bitcoin Boulevard'. *Coindesk*. Retrieved from https://www.coindesk.com/dutch-streets-adopt-cryptocurrency- become-bitcoin-boulevard

9 Rizzo, P. (2015, October 2). Dutch central bank research head 'not opposed' to bitcoin. *Coindesk.* Retrieved from https://www.coindesk.com/dutch-central-bank-research-not-opposed-bitcoin

Several studies have been conducted regarding the presence of bitcoin as a new technology in the financial system. However, until now there's no research that is specifically looking at bitcoin opportunities in terms of international regulatory aspects.

Literature Review

When talking about money, it is related to the concept according to the European Central Bank (ECB), money in any form must have 3 (three) main functions as the *medium of exchange, unit of account*, and *store of value*. "Money, whatever its form, has three different functions. It is a medium of exchange – a means of payment with value that everyone trust. Money is also a unit of account allowing goods and services to be priced, and it is a store of value. Only a portions of euro cash in circulation actually circulates, i.e. is used for processing payments. For example, many of the circulating €50 notes are hoarded."[10]

Also as a *medium of exchange*, the Federal Reserve Bank of Philadelphia mentioned there are 6 characteristic of nature that must be attached to money: *Divisible, Portable, Acceptable, Scarce, Durable and stable.*[11]

In an effort to regulate the circulation of money, usually every country has policies and mechanisms to keep the value of money they used. In its circulation and its legality form government then called currency. Currency is representation of all forms of money, either in the form of paper or coins. The difference in the value of currency from one country to another is called the exchange rate.

Every bitcoin transaction is done in electronic/virtual form and takes place in cyberspace. Cyberpolitics concept will be used in looking for how regulation of bitcoin currently and also is there any attempt by international monetary regimes to intervene to legalize digital currency in international electronic transactions.

According to Nazli Choucri, cyberpolitics is the relations between two processes: human interaction (politics) which refers to why get what, when and how, and the use of virtual space (cyber) as a new arena.[12] Here, "space" refers to domain of interaction that create potential sources, provide for an expansion of influence and leverage, enable new services, resources, knowledge, or market, and realize further potential when reinforced and sustained by technological advances.[13]

Connectivity provided by the cyber world provides an opportunity for the entire world community to engage in expanding influence, political relations, and national security. With the existence of the virtual/cyber world seen as a new arena for international relations, means cyberpolitics is the use of cyberspace that is used in matters relating to political interest between countries including the law. Law is one of subject resulting from a political policy that contains the regulation of society. This means that if current interactions can occur in the new arena (cyberspace), it would also naturally produce new legal/regulatory

[10] European Central Bank. (2012). *Virtual currency schemes*. Frankfurt, Germany: European Central Bank Eurosystem. Retrieved from https://www.ecb.europa.eu/pub/pdf/other/virtualcurrencyschemes201210en.pdf

[11] Federal Reserve Bank of Philadelphia. (2013). Functions and characteristics of money: A lesson to accompany the federal reserve and you. *Federal Reserve Bank of Philadelphia.* Retrieved from https://www.philadelphiafed.org/-/media/education/teachers/resources/fed-today/Functions_and_Characteristics_of_Money_Lesson.pdf

[12] Choucri, N. (2012). *Cyberpolitics in international relations*. Cambridge, MA: MIT Press

[13] Choucri, N. (2012).

product that regulate connectivity in the new arena.

International Monetary Historical Context

The monetary or financial system of the world has existed since humans can get a source of food from nature, but not in money form that now we use as medium of exchange in everyday life. At that time humans exchanged basic needs which known as barter system. There's long history until we finally get the monetary system at this time whose function is not only to meet the primary needs of human beings, but also as investment and managed by banking so that the financial system now become more structured and more complex.[14]

From the period of 1870 to present, the period of international monetary system could be grouped into 3 (three) such the prewar world, world war, and the postwar period of the world. The grouping / periodization is based on the different characteristics of the international monetary system with its own characteristics, in accordance with the world economic-political situation of three different time periods.[15]

According to the historian of the world economy, the beginning of the development of global monetary system began in the 1870s, observing the British hegemony of the century and its role in the global economy. For example, in manufacturing / industry, Great Britain is a producer of about half of global reserves of iron and coal, and consumes less than half the cotton it produces.[16] In the financial field, in the period 1870 - 1913 Great Britain was the country with the largest global gold stock and financed about 60% of global short-term credit (Walter, 1991).[17] It made the world's financial system use the gold standard by British initiation followed by other countries. The gold standard system is that each countries guarantees the exchange of currency to a certain amount in gold (fixed weight) and vice versa (convertibility). That's mean country's currency is backed by gold. States must have sufficient gold reserves to meet the demand for currency exchange.

The determination value of currency to gold is carried out by the respective countries and then the banks within the country are exempted from buying and selling gold to the public based on a predetermined exchange rate. Such a stipulation shall state that the relevant country has sufficient gold stock in the currency it prints. This system can run well until the outbreak of World War I.

In world war period which began in 1914 causing the chain of relations between countries broken. An economy that in the past could be integrated, and the circulation of gold that previously could also freely move from one country to another stopped in August 1914. The global economy fragmented into a small unit of national economic units. Automatically, the gold standard that prevailed in the past was also untenable. During the world war period and especially during the Great Depression of 1929 until 1940, almost all countries of the world practiced the foreign exchange control system and protectionism policy[18]

[14] Helleiner, E. (2008). The evolution of the International Monetary and Financial system. *Global political economy* (5th ed.). Oxford, England: Oxford University Press.

[15] Helleiner, E. (2008).

[16] Kennedy, P. (1988). *The rise and fall of the great powers: Economic change and military conflict from 1500 to 2000*. London, England: Unwin Hyman.

[17] Walter, A. (1991). *World power and world money: The role of hegemony and international monetary order*. London, England: Harvester Wheatsheaf.

[18] Freiden, J. A. (2006). *Global Capitalism: Its fall and rise in the twentieth century*. New York, NY: W.W Norton & Co.

After World War I ended, global economic activities focused on reconstructing the facilities and infrastructure of each country, as well as the improvement of economic institutions both domestically and internationally. Some European countries even try to restore the gold standard as before, such as Britain and France, although not achieve maximum results such as the period before the war. Another changes was that the financial center of the world that had existed in London, England then moved to New York, United States slowly.[19] Britain's pre-war world hegemon, then became owed much to the United States. The US then became the largest financial force of the time and became the world's creditor, especially over the devastated European countries due to world war.

Problems arising in this period that is related to the value of domestic currency specified in gold, due to the long disconnection of the monetary system and the system of pricing levels interstate because of the war. The determination of a currency exchange rate that is too high or too low can cause serious harm to all those involved. For example, when the Pound sterling is overvalued it will interfere with the balance of payments for the UK. The attempt to return the international monetary system to the gold standard that is not done simultaneously also becomes its own difficulty to find a balanced economic point (equilibrium) if there is a new state which then rejoin the gold standard system. This kind of situation that makes the effort to restore the gold standard as an international monetary system is difficult to realize so that in the period was applied the floating exchange rate system.

The world was devastated after World War II and the unenforceable gold standard encouraged allied countries, initiated by the United States and Britain, to try to find a new order in the global economy. The initiative was supported by many countries because of the spirit of liberalism and the damage caused by the world war. In July 1944 at Bretton Woods, New Hampshire, USA, the wish was achieved. Over 700 representatives from 45 countries attended the conference, and produced the Bretton Woods system which has two main agendas; First is to encourage tariff reduction and international trade barriers, and secondly to create a global economic framework to minimize economic conflicts and prevent the recurrence of world war.[20]

In order to achieve these objectives, the Bretton Woods regime was created to regulate international cooperation on two main issues, in terms of the international payment system and international value of the payment medium.[21] In summary, the Bretton Woods regime produced three important policies, including:

1. Fixed exchange rate method;
2. US dollar or US $ replaces the gold standard and becomes the main reserve currency;
3. The establishment of three international bodies that oversee all global economic activities, International Monetary Fund (IMF), the International Bank for Reconstruction and Development (now World Bank), and the General Agreements on Tariffs and Trade (GATT) (now the World Trade Organization / WTO).

[19] Gilpin, R. (2001). *Global political economy*. Princeton, NJ: Princeton University Press.

[20] Malanczuk, P. (1997). *Akehurst's modern introduction to international law*. New York, NY: Routledge.

[21] Freiden, J. A. (2006).

Under the terms of the IMF, all currencies of its member States shall be determined at the price of the US Dollar or by the price of gold by its equivalent. While US Dollar own set convertible to gold price equal to 1 oz gold = US $ 35.[22] The US Dollar value set to this gold price should not be changed, except in very urgent circumstances, such as the financial crisis, stagflation, and economic depression.

After the currency of country is established, government should maintain that the prevailing exchange rate does not deviate from the specified limits, no less and no more than a plus-minus one percent (Pretowitz, 2003). While the US is free from the obligation to keep / supervise the value of parity of its currency against foreign currency. However, the US must maintain (as well as guarantee) sufficient gold reserves with the amount of US Dollar printed or circulated in the country and in foreign countries.

In 1950s, dilemma arose when the United States suffered a deficit for financing its military forces abroad. Other countries are beginning to counter this system because on the one hand they have to work hard to withstand deficits, but the other hand America is "entitled" to deficits. The rise in the American deficit after 1958 has also raised doubts for the international community whether America is able to hold its gold (providing gold instead of whatever US dollar is required). As a result, they tend to prefer gold over the US dollar.

The dilemma makes US trade continues to deficit and cause confidence of international community to USD declining. Some countries, such as France decided to accumulate gold which then causes the value of USD continues depressed.[23] These situation continued and finally in 1971 President Nixon announced that America is no longer able to maintain its commitment to buy and sell gold at a price of 35 USD per ounce. Thus, the Bretton Woods system is indefensible, and the floating exchange rate system takes effect.

After Bretton Wood stopped in 1971 there was an effort to maintain a fixed exchange rate system through the Smithsonian Agreement held in December 1971. This agreement was attended by the G10 with the agreement of the G-10 members fixing the convertibility of its currency to the USD. However, this commitment lasted only a few months. United States remained on its stand not wanting to convert USD to gold and allow its currency to float with other currencies. In the end, floating exchange rate system became the mainstream rate for the world's countries until now.

Bitcoin as Money

The previous literature review has discussed briefly how a commodity can be called money. There are 3 (three) fundamental things that must be attached to money, as a *medium of exchange*, *unit of count*, and *store of value.* As a condition of a commodity or object can be used as a *medium of exchange* of payment, it can be analyzed from general indicators as presented by the Federal Reserve Bank of Philadelphia (2013): *Divisible, Portable, Acceptable, Scarce, Durable, Stable.*

Since the digital era, money can be represented in the form of bank account or virtual balances, currencies that have virtual environments and regulated and bound by services, such as games. Digital currency is

[22]Pretowitz, C. (2003). *Rogue nation: American unilateralism and the failure of good intentions*. New York, NY: Basic Books

[23] Copeland, B., & Taylor, M. (2005). *Trade and the environment: Theory and evidence*. Princeton, NJ: Princeton University Press.

a currency that has a digital form and can be used to transact with goods in the real world. Bitcoin is one of the first types of digital currencies use a peer-to-peer system in its distribution so that it is decentralized, without government interference. The smallest value of bitcoin called satoshis is a unit of numbers with a multiple of 1×10^{-8} . The following units Digital Currency like Bitcoin within International Monetary System Field 8 8 in bitcoin are (Bitcoin Indonesia, 2014):

1 BTC = 1000 mBTC = 1 000 000 µBTC = 100 000 000 Satoshi 1 mBTC = 0.001 BTC = 1000 µBTC = 100 000 Satoshi 1 µBTC = 0.000 001 BTC = 0.001 mBTC = 100 Satoshi 1 Satoshi = 0.000 000 01 BTC = 0,000 01 mBTC = 0.01 µBTC

International bitcoin consensus recommends µBTC units or also called bits as units used for daily transactions.

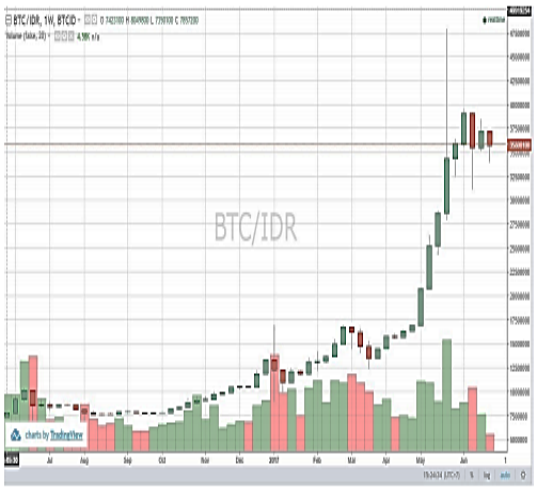
All transactions by bitcoin will be recorded in the general ledger (global ledger). This global ledger records all transactions made using bitcoins, from the minute bitcoins are mined all transactions are recorded, so this is what makes bitcoin not easy to forge. A peer -to-peer network in bitcoin allows users to transfer a number of bitcoin values, these transactions are stored in a file called a block, these blocks will be intertwined with each other to form a block chain, and miners solve complex mathematical formulas to prove ownership of bitcoin. Keep in mind, the amount of bitcoin circulation is limited to 21 million bitcoin. This is a step to maintain bitcoin value from inflation that usually occurs in conventional currencies.

Bitcoin requires a storage place called a wallet. A bitcoin account consists of a public key and private key. Wallet basically serves to store the private key code of bitcoin account that we have. Public key is the address that we give to others when we want to make transactions. Compared to conventional bank account, the public key is the account number of our savings, while the private key is an ATM card pin that should not be given to others because it means giving our entire savings to someone else. Wallet can be local-copy (installed on the computer) and eWallet online (using the wallet provide by website). Both have their respective advantages and disadvantages. In the computer-installed wallet, bitcoin will be stored on the hard drive which means any computer used to download this wallet software will be a bitcoin storage. If the computer is damaged then the bitcoin stored will be lost.

When we use *eWallet*, bitcoin files are stored online and access is available to use bitcoins anywhere using the internet. Not much different from online banking, with web wallet users can see the number of bitcoins stored anytime anywhere. This wallet has the same function as other conventional banks, that is protecting the property of customers or users from the threat of criminals, but the wallet also has a difference that is not borne by the government, if something happens to a user wallet such as hacking attacks then bitcoin stored in the wallet cannot be borne by the government.

The exchange rate of bitcoin is rapidly changing according to the demand and supply of its users.

Image 1:. Bitcoin rates



Source: bitcoin.co.id

From the graph it can be seen that the bitcoin exchange rate very quickly changed from the beginning of 2017 to mid-year. In January 2017, bitcoin's priced in the range of 11 - 12 million rupiah per 1 BTC. The value continued to jump until March nearly touching 17 million rupiah. Although it had dropped in April, the value of bitcoin's exchange rate reached 35 million rupiah at the end of May. One thing that needs to be observed is the spike that occurs after the outbreak of a computer virus with the type Ransomware named WannaCry in various countries that make the files in the computer affected by the virus is encrypted so inaccessible and requires that computer users pay a lot of money to get the file back. Interestingly, ransom money to the virus programmer should use bitcoin.

From those simple analysis, it can be analyzed bitcoin's indicator as a *medium of exchange i*n table below.

Table 1. Bitcoin as Medium of Exchange

	Indicator	**Fulfilled**
1.	*Divisible*	Yes
2.	*Portable*	Yes
3.	*Acceptable*	No
4.	*Scarce*	Yes
5.	*Durable*	Yes
6.	*Stable*	No

From the table above, we can see bitcoin is not able to meet some indicators set to serve as medium of exchange.

By its users, bitcoin is more viewed as "gold digital". It's reasonable because gold and bitcoin are based on the principle of the trust of their users (the community) in determining the standard price and also the nature of its limited supply. The use of bitcoin in transactions can also be equated with barter trading systems, for example a set of computers paid with 0.1 BTC means there has been a barter between computer devices with bitcoins worth 0.1. From this we can conclude that bitcoin can be used as *unit of account* of a particular commodity.

If we see from the historical context of the pre-war period, the gold standard used by every country to guarantee the exchange of its currency to a certain amount in gold (fixed weight). The problem at the same time is the value influenced by external supply and demand, such as the discovery of gold mines in other regions will cause the value / price of gold will decline internationally. Furthermore, because of its similarity with gold makes most bitcoin users make it as a means of investment. The increasing number of bitcoin demand is not proportional to the increasing in supply which makes bitcoin's price increase in recent years. From this point can be seen bitcoin meet one of the functions of money as *store of value*, in this case store wealth. The use of gold as an investment medium is nothing new in the human civilization's history. Limited supply of gold compared to the demand to make the price of gold continues to rise steadily.

International Monetary Regulation

As we know, the distribution system and use of bitcoin exist in virtual space or better known as cyberspace. *Cyberspace* itself literally means "*the notional environment in which communication over computer networks occurs*". According to Chourci in the previous literature review, "*Space*" in the context of international relations refers to the interaction that creates a source of potential power and connectivity provided by "*Cyber*" provides an opportunity for more non-state actors to engage in broadening influence, political relations, and national security.[24] The presence of bitcoin as a new digital financial technology is a prove that virtual world as a space capable providing new potential sources of power. Its unregulated nature makes it in "grey zone".

Cyberpolitics as seen before is relations between two processes: human interaction (politics) which refers to who gets what, when, and how, and the use of virtual space (cyber) as a new arena. In case of determining rules of the game in international context usually facilitated by the establishment of a regime. The regime is a framework of the rules of the game that used to manage the power relations between various actors in a world that does not recognize supreme power (anarchy).[25] Regulatory type arrangements are the result of mutual consensus among various actors to minimize potential conflict from the relationships between the actors involved. Conflict occurs because there's disparity "*who gets what*" from interaction between the actors that occurred.

After the end of the Bretton Woods regime in the international monetary system, it doesn't stop the influence of monetary institutions born in the agreement. The legacy of the Bretton Woods regime's influence remains widespread even though there are some things in the treaty that are no longer run by the countries involved. When looking at structural approaches in the EPI initiated by Susan Strange, what hegemon did in forming an international structure, especially in the financial (monetary) sector has shaped the role model of international monetary system regulatory institution. Therefore, the discussion of international regulations is inseparable from the Bretton Woods institutions. As digital money circulating in the new arena (cyberspace) this section will seek regulation in three main international monetary institutions: IMF, World Bank, and WTO.

International Monetary Fund (IMF)

IMF is a monetary institution in charge of ensuring the stability of the international monetary system by monitoring the exchange rate and ensuring that each country can transact with each other. Plassaras (2013) explains some negative effects related to unregulated digital currency. Specifically, in this case bitcoin has the potential to cause *"speculative attack*" to other currencies.

Speculative attack is an effort to exchange a weak currency with a stronger currency and then later if the weak currency continues to weaken (continues depreciate) the offender of the attack re-exchanges with the original currency and take advantage of the difference in value he swapped it before. Each country must have enough reserve currency to avoid it. In this case, if the country is experiencing a crisis with exhausted reserves of its currency, the IMF is tasked with assisting the disbursement of

[24] Choucri, N. (2012).

[25] Makhasin, L. (2015). *Ekonomi politik internasional (Analisis sruktural tentang asal-usul dan perkembangan struktur keuangan).* Yogyakarta, Indonesia: Arti Bumi Intaran.

funds to restore the stability of the country's balance sheet.

Step taken to return the balance to equilibrium point (balance condition) is supplying bitcoin to keep the value of the weaker currencies. Here the problem arises if the state has no reserves in the form of bitcoin, even with the IMF. The IMF receives reserves of money from its member countries with a quota system. It is very difficult to collect bitcoins with a short time due to their limited number. Also, bitcoin not a part / member of the IMF. The IMF only opens nation-state membership.

Here, Plassaras looks at the use of the term *"Separate Currency"* in Article IV of section 5 IMF Agreement. In Article IV underlines every member country has the responsibility to implement domestic policies aimed at maintaining international economic stability in accordance with the guidelines established by the IMF. In the 5th section of the article, it describes the obligations of member states in treating the national currency and the separate currency or other currencies used in addition to the national currency in a balanced / fair.

To prevent potential threats from bitcoin, He feels need to broaden the meaning of the term "*separate currency"* by including bitcoins and other digital currencies as part of the term's use. This means that IMF may collect digital money by allowing member countries to pay membership fees to the IMF using bitcoin or other similar digital currencies and furthermore the member country is also entitled to receive assistance in the form of digital currency in accordance with the quota. So that potential threat of digital money can be controlled more. To implement it, IMF needs to amend its Agreement by incorporating bitcoin and similar digital money as part of the use of the term "*separate currency*".

World Trade Organization (WTO)

According to Ed Howden (2015) in his publication "*The Crypto-Currency Conundrum: Regulating an Uncertain Future*" WTO concerned the exchange of *cryptocurrencies* or *cryptos* (another digital currency name) as trade transactions in the form of goods than currency exchange. Because basically there is no domestic currency that moves from one country to another.[26] If WTO saw the circulation of *cryptos* as a trade in goods, it is related to the WTO's most favored nation principle. In other words, cryptos will be the subject of that principle and each country should treat it mutually with each other.

As a goods commodity, there are rules in the WTO can be applied as a step to regulate the circulation or potential threat of bitcoin. WTO has a *Safeguard Mechanism* based on Article XIX GATT. This mechanism allows countries to adopt restrictive policies on the entry of products that could potentially disrupt domestic economic stability. Such restrictions may include termination of imports, quota restrictions, tariff additions, etc. Related to bitcoin, if it is perceived to threaten the domestic currency (with speculative attack attempts as example) the state can take action by stopping all transactions that use bitcoin or by imposing taxes on those businesses to prevent bitcoin circulating freely without control.

World Bank

Bitcoin's regulation specifically is also not found in the World Bank framework. From some of the literature found, there is no mention of bitcoin's

[26] Howden, E. (2015). The crypto-currency conundrum: Regulating an uncertain future. *Emory International Law Review*, *29*(4). Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2821358#maincontent

circulation associated with World Bank rules. This is reasonable because basically, the tasks and functions of the World Bank listed in the profile is as an assistance or an agency that accompanies developing countries to alleviate poverty. The vision of this institution is to reduce extreme poverty in the world. Compared to the previous two institutions with the role as regulator of international monetary and trade system, World Bank is more likely to play its role as a counselor of developing countries to guide domestic policies to reduce poverty by stimulating funds implemented as programs in areas such as education, health, governance, infrastructure, environment, finance, and agriculture[27].

Conclusion

The study shows that as *medium of exchange*, bitcoin has not met all the criteria or indicators to be called money. If we look at the nature and technology brought, bitcoin is more suitable to be treated as a commodity like gold. The transaction system is more suitable as the circulation of goods than considered as currency. Due to the independent nature and the price based on the belief factor, the existence of bitcoin depends on the users who are still limited to certain parties (not yet generally accepted).

In case of international regulation, there's no clear and specific rules regarding the existence of bitcoin. Regulation in this study are limited to thought or options that can be used either domestically by the state or globally by international institutions managing the monetery system and international trade to regulate the distribution of bitcoin. From the facts found, it can be concluded that bitcoin has not fully met the criteria as currency and there is no specific rules regarding the existence of digital currency. The existence of bitcoin simply becomes an alternative electronic payment media in the international financial landscape.

[27] See http://www.worldbank.org/en/about/what-we-do

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