CHAPTER II

GENERAL OVERVIEW OF CRYPTOCURRENCY IN ACCORDANCE

WITH COMMODITY

A. General Overview on Cryptocurrency (Bitcoin)

1. Bitcoin

Bitcoin (written in capital letters) is an "online communication protocol that facilitates the use of virtual currencies, including electronic payments", while bitcoins (written in lowercase and s behind) are units of accounts transacted through the Bitcoin protocol.[35] Bitcoin is the first decentralized peer-to-peer payment network that is fully controlled by its users without any central authority or intermediaries. From the user's point of view, Bitcoin is like cash in the internet world. Bitcoin can also be seen as the three most prominent bookkeeping system available today.[36] Bitcoin is a virtual currency that only has an electronic form, does not have a physical form like conventional money that can be in the form of coins or paper. Bitcoin is nothing more than a computer file stored in a Bitcoin wallet or Bitcoin wallet. Unlike conventional money that can be stored both in the wallet and in the bank, Bitcoin that does not have a physical form can only be

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[35] Rainer Böhme, Nicolas Christin, Benjamin Edelman, & Tyley Moore. Bitcoin: Economics, Technology and Governance, 2015 p.213

[36] Ibid

stored in the Bitcoin wallet or Bitcoin wallet.[37]

A program that runs on the internet processes and records transactions made through Bitcoin in something called a public ledger. The Bitcoin system runs in a distributed manner: there is no single legal entity that controls or manages Bitcoin. More than that, unlike conventional currencies that are issued and guaranteed by a particular country, there is no country or commodity that guarantees, supports or supports this virtual currency.

The value of bitcoins is determined solely by public perception which is the midpoint of the supply value and demand value, so that the value of bitcoins can be said to have high volatility. During the initial release of Bitcoin, namely in May 2010, the exchange rate of bitcoins against the US Dollar was 0.004 US Dollars (USD) for 1 bitcoins (BTC). Whereas in July 2016, the exchange rate of bitcoins against the US Dollar has exceeded 600 US Dollars (USD) or more than eight million rupiah according to the exchange rate of the US Dollar against the Rupiah at that time for 1 bitcoins.[38]

Bitcoins can be created through a process commonly known as "mining", in this process, users who want to create bitcoins provide computational power (in the form of adequate electricity and computers) to process bitcoins (processing and

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[37] Ibid
[38] Ibid

confirmation of transactions). In return, users who provide computing power will get transaction fees in the form of bitcoins. The Bitcoin Aglorithmic system is programmed to release bitcoins in an increasingly smaller number or quantity until a total of twenty-one million bitcoins are released. After twenty-one million bitcoins were released, there will be no more bitcoins released. According to the blockchain.info site, in June 2016, more than fifteen million bitcoins were released and circulated in circulation.[39]

2. History of Development of Cryptocurrency (Bitcoin)

On January 3, 2009, Satoshi Nakamoto mined the first bitcoins, which until now are known as "genesis block". The Genesis Block consists of 50 bitcoins (50 BTC). On January 9, 2009, Satoshi Nakamoto released the first Bitcoin protocol (v0.1). Exactly three days later, namely on January 12, 2009, a historic event occurred, namely the first transaction using Bitcoin. The transaction occurred between Satoshi Nakamoto's account to Hal Finney's account. Hal Finney himself is a developer who works in a PGP company, a company that is in the forefront of public key cryptography a technology behind Bitcoin encryption capabilities.[40]

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[39] Ibid

[40] Bitcoin Price Chart With Historic Events, https://99Bitcoins.com/price-chart-history/ (accessed on March 14, 2019)

On February 6, 2010, the first Bitcoin exchange was established and began to move. At that time, the bitcoins exchange rate was 0.004 US dollars (USD) for 1 bitcoins (BTC). As for what determines the exchange rate of bitcoins at that time is the law of supply and demand. In July 2010, there were other exchanges that began selling Bitcoin. The online exchange is called Mt.Gox. (Magic The Gathering Online eXchange). The stock actually existed since 2007, but only started selling bitcoins in July 2010. Before Mt.Gox. start selling bitcoins, selling prices of bitcoins recorded at 0.008 US dollars (USD) for 1 bitcoins (BTC). However, just five days after Mt.Gox. starting to sell bitcoins, the exchange rate of bitcoins against the US dollar has increased tenfold to 0.08 US dollars (USD) for 1 bitcoins (BTC). Many parties argue that the increase in the bitcoins exchange rate is also caused by the increasing number of new Bitcoin users drastically since the release of v0.03 protocol in the same month, namely in July 2010.[41]

In August 2010, vulnerability or loophole in the Bitcoin protocol began to be seen and realized by its users. The vulnerability allows users to bypass the Bitcoin protocol system and create an unlimited number of bitcoins. This is not a good

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[41] Ibid

thing, recorded more than one hundred and eighty four million bitcoins (BTC) were only produced from a single transaction that occurred on August 15, 2010. This certainly can make the exchange rate of bitcoins to be very low in the time very short because of the high number of circulating bitcoins. But fortunately, this very fraudulent action can be immediately seen and canceled by other users so that nothing happens to be feared. Since the incident, the bugs in the system have finally been fixed, and until now no vulnerability or loophole has been found in the Bitcoin protocol system. The incident turned out to not make the Bitcoin market to be abandoned by its users. Conversely, the exchange rate of bitcoins continues to increase. At the end of 2010, the exchange rate of bitcoins against the US Dollar was 0.50 US Dollars (USD) for 1 bitcoins (BTC). At that time, it was estimated that the total value of the outstanding bitcoins had exceeded one million US dollars.

In January 2011, there were five million two hundred fifty thousand bitcoins in circulation. On February 9, 2011, bitcoins finally had the same value as the US Dollar. On that date, Mt.Gox. setting the exchange rate of bitcoins against the US Dollar is 1 US Dollar (USD) for 1 bitcoins (BTC). The increasing bitcoins exchange rate has resulted in a dramatic increase in the number of Bitcoin users. However, in mid

March 2011, the bitcoins exchange rate weakened to 0.07 US dollars (USD) for 1 bitcoins (BTC). In April 2011, Bitcoin became the topic of discussion in Time magazine. This certainly makes Bitcoin get wider public attention because it is discussed in magazines as big as Time. At the end of April 2011, it was recorded that the total value of outstanding bitcoins had exceeded ten million US dollars, a tenfold increase from the previous five months. Since the discussion of Bitcoin by Time magazine in April 2011, the exchange rate of bitcoins has continued to increase sharply. The bitcoins exchange rate against the US Dollar was recorded at 10 US Dollars (USD) for 1 bitcoins (BTC) in June. The peak of the increase in exchange rates bitcoins were recorded on June 8, 2011, namely 31.92 US Dollars (USD) for 1 bitcoins (BTC).[42]

3. Definition on Cryptography and Bitcoin

Cryptography comes from Greek, namely Kriptos which means secret and Graphy which means writing so cryptography is the practice and study of creating confidential information. Cryptography is a technology used by cryptocurrency.

Chiper is a secret method of writing, plain text (plaintext) is then converted to ciphertext, the process of converting plain text

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[42] Brian Merchant, Bitcoin Releases Version 0,3, http://motherboard.vice.com/blog/this-pizza-is-worth-750000 (accesed on March 14, 2019)

into Chippertext is referred to as ciphering or encryption controlled by cryptographic keys.[43]

The main classes of cryptographic systems are codes and ciphers. A code is a system where sentences, words, syllables, letters, or symbols are replaced with certain groups of letters or numbers (groups of codes). Code groups (usually two to five letters or numbers) are listed in the codebook.[44] The basic idea behind the code is to be able to hide messages from unauthorized people, to shorten messages in order to save transmission costs (telegram costs; bandwidth), or translate messages into forms suitable for transmission (Morse code). During World War II, resistance movements in France and Norway for example received messages broadcast in code from London where short pre-arranged sentences were meaningful. "Jean kumis très un longues" which is actually a code signal for France to carry out a resistance movement and mobilize their forces after the Allies landed on the Normandy coast at D-day.[45]

There are two basic types of chipers, namely transposition and substitution. Transposition is to manage the money of every bit or character in the data and then to the substitution type that replaces each bit, character or set of characters into the Roman

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[43] Robbling Denning, Dorothy Elizabeth. Cryptography and data security. Addison-Wesley Longman Publishing Co., Inc., 1982 p.2
[44] Eilertsen, O. "An Introduction to Cryptography." Telektronik 96.3 (2000): p.3
[45] *Ibid p.4*

alphabet beginning with position K, K is the key that refers to the Chiper, therefore the ringing Chiper is called Caesar Cipher because Julius Caesar often uses Chiper using the formula k = 3. In computer programs it is often combined between types of transpositions and substitutions, for example Data Encyption Standard (DES) encrypts 64-bit blocks using a combination of transposition and substitution.[46]

DES is the algorithm most widely used in cryptography. To follow developments and needs to protect the banking system, health services, other sensitive communications, and also enable confidential communication within the United States (US) government, standardization in cryptography was conducted by the National Bureau of Standards, the US government at that time invited interested parties to offer cryptographic algorithms and then after a period of supervision and adaptation, the Data Encryption Standard was published in 1976 using the winning algorithm's public algorithm, an algorithm called IBM's Lucifer of Horst Feistel. actually IBM uses a 128-bit key but is reduced to 56 bits and an addition called Sboxes, which was proposed by the National Security Agency (NSA), this caused a great controversy. Non-government cryptographers say that the NSA intentionally weakened the algorithm by reducing the size of the

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[46] Robbling Denning, Dorothy Elizabeth, Loc. Cit. p.2

key to be easily "solved" or they have been included in the "trapdoor" that allows the NSA to easily solve ciphertexts. But DES was still published in January 1977 as the Federal Standard for "un-classified government communication". DES is also adopted by the American National Standards Institute (ANSI) for use in the private sector in the United States, and by ISO as an International Standard for the protection of banking communications (ISO 8730 and 8732).[47]

Classical cryptography provides confidentiality to information sent through certain channels so as to avoid tapping or interception, the sender selects the cipher and encryption key and assigns the key to the recipient or to a trusted courier. Cryptography currently functions to protect data sent via electronic networks or data stored on computer systems, on cryptography there are currently two main objectives namely confidentiality or privacy to prevent unwanted access and authenticity or integrity to prevent modifications to the data.

In transactions using electronic systems, it can be done using two systems, namely cash-like payment systems, in this system a sum of money is taken from the payer's account such as the paying bank account before the transaction is an example of this system is electronic money. The second payment system is pay

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[47] Eilertsen, O, Loc.Cit. p.5

now, which is direct payment using debit from ATM and pay-later, namely using a credit card. From the payment system cryptography has an important role in terms of security, confidentiality and authentication, some security systems for payment systems can be divided into several forms, namely systems without cryptography, this system does not use cryptography at all means relying on security outside the network such as confirmation through fax as proof of authorization, besides that in virtual activities the data sent in this system is very wide because it is not protected.[48]

Generic Payment Switch, is an online payment system that uses OpenMarket Payment, a system that supports authentication methods based on the chosen payment method from using PIN and authentication based on smart cards, actually this OpenMarket system uses passwords and a choice of two other types of security tools, Secure Net Key and SecureID. For user authentication based on the Shared-key Cryptography and authorization based on public key cryptography, the OpenMarket payment system is digitally ordered to carry out an authorization which is then forwarded to the recipient of the payment.

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[48]Asokan Nadrajah, et al. "The State of the art in electronic payment system." Dalam Computer 30.9 (IBM Zurich Research Laboratory) 1997, p.28

The next system is the Shared-key cryptography system, this system bases authentication on cryptography published by a verifier and a prover, both parties share secrets such as DES keys or keywords.[49]

The last is a digital signature on a public key system, authentication on this system is based on public key cryptography and the parties must have confidential digital signatures and official certificates issued by the authority. From the form of the system described previously it can cryptography has an important role in giving authenticity and confidentiality in transactions through electronic media.

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[49] *Ibid*
[50] Rainer Bohme, Nicolas Christin, Benjamin Edelman, & Tyler Moore, op.cit., p.1
[51] Ibid

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The basic algorithm for the hash system used in Bitcoin is SHA-256. [52] In Bitcoin the relevant cryptographic theory, namely the theory of Ralph Merkle, in 1982 Merkle developed a system that made it possible to efficiently verify large data structures through hash tree structures.[53] Such a system can be used to verify non-reputability of the datum, but for large data

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[52] DuPont, Quinn. "The politics of cryptography: Bitcoin and the ordering machines." Journal of Peer Production (2014), p.5.

[53] Merkle, Ralph C. "Method of providing digital signatures." U.S. Patent No. 4,309,569." January 5. 1982.

structures it will be very time consuming to perform hash functions on each datum which Merkle then compiles the datum into the hash tree structure (where each node is a hash) so checks are only carried out on the topmost hash of the tree structure rather than each node to ensure non-reputation. This hash tree method is usually used to ensure data integrity and when used in cryptography, hash functions to check each message for authentication.[54]

A blind signatures are a concept discovered by Chaum,[55] this system aims to provide a possible payment system with cash but with the anonymity of digital money security (such as Bitcoin). By using public key cryptography Chaum proposes a system that guarantees:[56]

 a. Inability of third parties to determine information about recipients of payments.

 b. Individual's ability to provide proof of payment.

 c. The ability to stop payments if needed.

Chaum imagines the digital equivalent of paper envelopes coated with carbon paper. By writing a signature on the outside of the second envelope that is "blind" so that the signature is also on the other envelope. Chaum gives an example of voting using

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[54] Dupont, Quinn, Loc. Cit.

[55] Chaum, D, ―Blind Signatures for Untraceable Payments‖, R. L. Rivest, D. Chaum, & A. T. Sherman (1983), p.200.

[56] Ibid

a secret voice, in this method a blind signature is sent to the voter who is then ejected from the envelope and signed by the voter and sent back to the voter in a new envelope so that only the voter sees the signature arises then the signature can be confirmed against the signature on the envelope but still keep each voice anonymous.[57]

Changing binary numbers are useful for many computers, but in an electronic cash system it requires the opposite quality: money needs to be solid, slow, and not replicable. This theory was proposed and developed by Adam. Back in 1997 to limit spam e-mail, Hashcash used two facts in public key cryptography: non-reputability of hashes and computational difficulties in finding hashes.[58]Because it is almost impossible to predict the results of a hash function at the input that is done carelessly (without taking into account the fundamentals of the main asymmetric cryptography used in the hash function) but it is easy to verify the results.[59]

Another theory related to Bitcoin cryptography is Hal Finney's theory which extends the concept of bmoney and Hashcash by suggesting proof of work formalization, this scheme allows reuse and exchange of tokens (digest

[57] Ibid
[58] DuPont, Quinn, Op.Cit., p.6
[59] Ibid

hashes).[60]This concept was further developed by Nick Szabo who then developed a concept to understand accurate systems to calculate the difficulty of proof-of-work related to the concept of payment instruments with which money was produced (hash digests) to be exchanged and reused.[61]

In Indonesia cryptographic rules are related to digital signatures can be found in the ITE Law and PP PSTE besides that there are no other laws and regulations governing cryptography. In Indonesia, the body responsible for making regulations regarding the export and import of cryptographic products is the Directorate General of International Trade under the Minister of Trade and Industry.[62]

In Singapore the Singapore Trade Development Agency (TDB) said:

> *The Singapore Trade Development Board: The import of scramblers, or hardware encryption or capable software of arranging signs, signals, writing, sounds, or intelligence for the purpose of being controlled by the Trade Development Board ("TBD") under the First Schedule of the Regulation of the Imports and Export Regulations 1995. Prior written approval from the TDB must be obtained before the importer allowed into*

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[60] Ibid
[61] Ibid
[62] Ibid

Singapore. To apply for import approval, an importer is required to complete the 'Application to Import Encryption Hardware / Software' and submit it to the TDB for consideration. TDB requires the importer to furnish the technical specifications of the encrypted user. The importer must be a company incorporated or registered in Singapore. TDB will not show the outcome of his application. If the importer is allowed, the importer should also apply for a license from the Telecommunications Authority of Singapore ("TAS"), a Licensing Department, to use the encryptor (for hardware only)[63]

From the information above, it can be seen that in Singapore for importing scramblers, encrypting hardware, software for changing signs, signals, writing, voice and intelligence for security purposes are under the supervision of TDB and require applications to import encrypted hardware / software later. submitted to TDB representatives.[64] TDB will ask the importer to complete the technical specifications of the encryption and make justification for the user to use the encrypter. TDB will provide the application answer. If allowed, the importer must submit a request for permission

[63] Madsen, Wayne, et al, ―Cryptography and liberty: an international survey of encryption policy" in Journal Marshall of Journal Computer & Information law, (1997), p.501

[64] Billy Putra Taufik, Diana Rosida, dan Nugroho Muhtarif, *Op. Cit.*

from the Singapore Telecommunications Agency (TAS) and the Licensing Agency to use the encryption (only for software).[65]

4. Cryptocurrencies on Islamic Perspective

The lack of law regarding Cryptocurrencies is not one of the problems caused by Cryptocurrency trade. As explained in the previous chapter that all Cryptocurrency users do not display personal names and data and are replaced with codes that represent their identities. The anonymity of the user is to protect the users data in the transaction. All transactions that occur can be seen by Cryptocurrency users, this is because Cryptocurrency uses a peer-to-peer network. The function of anonymity is to prevent users who have malicious intent and misuse information about the transaction. Islam also instructs Muslims to avoid anything that is harmful or contains damage (dar'ul mafasid) as stated in the methodology of reasoning (ushul fiqh) rules and means "avoiding damage must take precedence over bringing goodness". The chances of damage and abuse of contract are very high if there is no adequate regulation. It must be remembered that in Cryptocurrency trade there is no party that can guarantee all transactions that occur.

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[65] Ibid

The lack of consumer protection in cryptocurrency is seen as writer in the letter of Surat An-Nisa 29:

يَٰٓأَيُّهَا ٱلَّذِينَ ءَامَنُواْ لَا تَأْكُلُوٓاْ أَمْوَٰلَكُم بَيْنَكُم بِٱلْبَٰطِلِ إِلَّآ أَن تَكُونَ تِجَٰرَةً عَن تَرَاضٍ مِّنكُمْ وَلَا تَقْتُلُوٓاْ أَنفُسَكُمْ إِنَّ ٱللَّهَ كَانَ بِكُمْ رَحِيمًا ﴿٢٩﴾

"O you who have believed, do not consume one another's wealth unjustly but only [in lawful] business by mutual consent. And do not kill yourselves [or one another]. Indeed, Allah is to you ever Merciful."

Based on the analysis above, in the Islamic perspective it can be said that Cryptocurrency Trade in akad or contract fulfils the terms of the sale and purchase contract in sharf. The nature of Cryptocurrency transactions also does not contain usury because there are no additional fees in the payment exchange process and are immediately processed in minutes without any time delay. However, if viewed through a legal perspective or regulation, then Cryptocurrency trade can be said not meet these requirements due to the lack of action on the regulation of Cryptocurrency trade that causes gharar and can lead to mudharat (harm) and damage to the sale and

purchase of Cryptocurrency. Regulating the law on Cryptocurrency is needed to guarantee and protect users of Cryptocurrencies, and also the existence of real controls from the authorities will avoid cryptocurrency trade from loses.

Cryptocurrency requires clear regulation to eliminate its illegal status, because from Cryptocurrency we can actually get many tangible benefits for the easiness and also usefulness of the people.

B. General Overview on Commodity

1. Commodity as an Economic goods

According to scholars the elements of the body consist of[66]:

1. Can be controlled by humans.

Mastered in this case both physical possession and property rights, physical mastery (bezit) is the mastery of an object physically over an object regulated in article 529-559 of the Civil Code, what is meant by bezit is a state of birth, in which a person controls an object as if it were his own, which by law is protected, by not questioning who the right of ownership is. Whereas the possession of objects with property rights (eigendom) is the control of objects on the basis of written rights.[67]

1. Can be touched or not.

[66]Mahendra Adhi Purwanta, "Analisa Hukum Terhadap Transaksi Atas Kebendaan Virtual Pada Penyelenggaran Permainan Online", Thesis Fakultas Hukum UI, 2012, p.122

[67] Prof. Subekti, *Principles of Civil Law*, Intermassa Publishing, Jakarta, p. 63

An object can be either tangible or intangible. Intangible objects are objects that can be seen and felt like land while intangible objects that cannot be seen or felt like rights.

2. Can be valued with money or at least valuable to him, and one object must be valued with money or at least valuable to its owner.

3. Is a unit and is independent.

An object must stand alone means that the object is not a single entity from other objects so that the object is unique and independent.

2. Virtual Object

According to David Nelmark, Virtual Property is defined as: "any property interest that is both intangible and exclusionary." If freely translated, it means a property that is intangible and exclusive.[68] From the above definition can be drawn a conclusion that virtual property or virtual goods is an intangible object, and only in the virtual world. The study, regarding this virtual property is a new study. This study is an important study along with the popular use of the internet. Virtual property cannot be separated from the existence of the internet and computer programs. There is a computer program that can be owned by someone, connected to the internet

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[68] Mohamad Samsul, 2010, "Pasar Berjangka Komoditas dan Derivatif" Salemba Empat Jakarta" p.22

network, and can interact with other people, giving birth to a concept about virtual property or virtual good.[69]

The Virtual Property has three properties, namely: Rivalrous (exclusive), Persistent (fixed), and Interconnected (interconnected). Nature possessed This virtual property basically, mimics the properties of property or material in the real world.[70]

1. Rivalrous

   Exclusive here means that the virtual property can only be owned by one person. If someone already has a virtual property, other people cannot have it.

2. Persistent

   It still means that a virtual property will remain for a certain period of time. For example, in the real world, someone carves a statue, then the statue is placed in a city park. So, the statue will continue to be in the city park, it will not disappear.

3. Interconnected

   A virtual property can be connected to each other. The owner can control the virtual property, while other parties can also interact with the virtual property.

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[69] Ibid

[70] David Nelmark, Virtual Property: The Challenges of Regulating Intangible, Exclusionary Property Interests such as Domain Names, http://www.lawnorthwestern.edu/journal/njtip/v3/n1/1/#note (accessed on December 26, 2018)

3. Definition on Commodity Futures Trading

According to Law No.32 of 1997 concerning commodity futures trading as the legal basis for the implementation of futures trading in Indonesia, futures trading is anything related to the sale and purchase of commodities whose deliveries are carried out in the future based on futures or options contracts on futures contract.

Futures contract is a standardized contract with a predetermined amount, quality, type, place and delivery time. Because of the standard form, only the price is negotiated on the futures exchange. Futures trading only takes place in organized markets or known as the Futures Exchange. Futures Exchange trades futures contracts for various commodities (agriculture, plantations, mining, or financial products, such as currency, even indices such as stock indices.[71]

The institutions in futures trading include:

a. Supervisory Agency, in this case the Commodity Futures Trading Regulatory Agency (BAPPEBTI). Law no. 32 of 1997 concerning futures trading mandates the establishment of BAPPEBTI as a government institution that conducts guidance,

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[71] Pantas Lamban Batu, 2010, "Perdagangan Berjangka: Futures Trading", Elex Media Komputindo, p.22

regulation and supervision of daily futures trading activities in Indonesia.

b. Organizers, namely the Futures Exchange and the Futures Clearing House. Futures Exchange, hereinafter referred to as the stock exchange, is an organization based on membership and serves to provide facilities for carrying out and monitoring the activities of futures contract transactions in accordance with applicable laws and regulations. This exchange is in Jakarta, commonly referred to as the Jakarta Futures Exchange (BBJ). While the Futures Clearing House is a complementary institution of the futures exchange which functions to complete and guarantee the performance of all transactions carried out on the exchange and has been registered with it. The Clearing House acts as a seller of the holder of a buy position that is still "open" and as a buyer of the holder of a sell position that is still "open". So that in the futures trading buyers and sellers do not need to meet or know each other because in their transactions represented by the Clearing House. This Clearing House in Indonesia is called the Indonesian Futures Clearing House (LKBI) in Jakarta.

c. Actors and Supporters Elements The actors' elements are futures brokers, namely the only professionals who can receive orders from customers and carry them forward for trading on the stock exchange. Customer affairs in relation to exchanges and clearing institutions will be represented by futures brokers. Supporting elements are futures advisors and managers of futures and banking fund centers and experts in accounting, law, warehousing, and quality testing institutions.

d. User / User Unit, namely the business world and the general public which are divided into two groups, namely the hedger group and the investor / speculator group.[72]

4. Commodity Futures Trading Concept

This concept is divided according to the types of products themselves, namely:

1. Forex (Foreign Exchange)

Trading forex (foreign exchange) or better known with the term "Forex", it is trading in the US dollar against almost all other world currencies. Forex trading is a global trade and is followed by international / foreign exchange banks, multinational companies. Any

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[72] Trainer & Complain Devision PT. First State Future Surabaya, Pengenalan Perdagangan Berjangka, (Surabaya: PT. First States Futures, 2013) p.5-6

government and individuals with an interest in the value of assets. Forex trading is carried out by all participants in international exchanges throughout the world, including the New York, Chicago, London, Switzerland, Tokyo, Singapore, Taiwan, Hong Kong, Willington, Sydney, Zurich, Bahrain, Abu Dabhi, etc. . FOREX transactions are conducted 24 hours a day due to the time difference between the exchanges.[73]

Forex transactions are highly liquid trades, in the sense that at any price investors can buy or sell foreign exchange will be served and absorbed by the exchange, this can happen because the exchange mechanism guarantees that all transactions and the liquid nature of the currency will be absorbed (because all the participant needs the foreign exchange). This is different from the mechanism on ordinary exchanges, where investors will buy at the level of the desired price to do a queue to buy first and not necessarily someone who wants to sell, and vice versa.[74]

2. Stodex (Stock Index)

Stock index or stock index is a derivative product

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[73] Pantas Lamban Batu, "Perdagangan Berjangka: Futures Trading", Elex Media Komputindo, 2010, p.38

[74] *Ibid*

(derivative) of superior and liquid stocks on the main board of trading stock. A stock index is a market indicator that looks for the average change in part or all of the common stock prices registered and transacted on the stock market in general. The stock index is basically an index that functions as an indicator of changes in the average price of all or a number of selected blue chip stocks that are listed and traded on certain stock exchanges and is a general indicator of the relatively best changes in stock prices on the stock exchange.[75]

From the definition, a futures stock index is an agreement (contract) to buy (buy) or sell (sell) a fixed value of an index at a certain time in the future. For this reason, investments in stock index futures are very popular among investors because they can use them to take positions in the market as a whole by not tending only to the shares of a particular company. If investors speculate on the strength of the market and the economy that is experiencing an increase, buyers can be said to have a long (going long) position. Conversely, a short position (going short) on an index

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[75] *Ibid p.47*

of futures may be taken to do a hedge against the possibility of a market fall.

3. Bullion (Gold)

The chemical symbol of gold is Au (Aurum) derived from Latin which means "glowing dawn". Aurora is the "Goddess of Dawn" in Roman culture. Clearly, this is related to gold yellow or orange; one of two metals that are not white or silver (the other is copper).

Gold and copper were the first metals found by humans around 5000 BC. Coupled with silver, these three metals are found in metal structures in the earth's layers. Gold is still dug in metal in more than 60 countries around the world. Because gold is still mixed with metals and other mixtures in small amounts, gold refining still needs to be done.[76]

Gold is considered a precious and precious metal. The specialty of gold is chemically shown by its chemical stability which is able to withstand rust and oxidation. That's just one of the many advantages of

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[76] Trainer & Complain Devision PT. First State Futures Surabaya, *Pengenalan Perdagangan Berjangka,* (Surabaya: PT. First State Futures, 2013), p.18

gold. If combined all the advantages, gold will provide many benefits and is unique to the industry.[77]

This trade creates a reference to the national gold price so that people do not sell well below international gold prices. Gold craftsmen and gold traders in the real market requires a fixed and definite supply of gold at a price that can be ascertained. So that this certainty will have an impact on the growing growth of the domestic gold industry which will ultimately generate state income.

The creation of a futures contract market that will be a forum for hedgers playing abroad will not be feasible because of the fluctuation of the Dollar.

5. Benefits of commodity futures trading.

There are two main functions of futures trading, namely:[78]

   a. As a means of managing risk (risk management) through hedging activities (hedging) carried out in futures contracts, it will be able to reduce the impact due to the risk of price changes to a minimum. Through futures trading, commodity producers can sell commodities that they will harvest a few months

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[77] *Ibid*

[78] Pantas Lamban Batu, "Perdagangan Berjangka: Futures Trading", Elex Media Komputindo, 2010, p.18

later at prices set by producers based on their business calculations. Hedging is a mechanism of protection against price risk. It can be said that the hedging activity is contained emporary substitution of cash transactions with market transactions in the future. The hedging mechanism consists of transactions that are opposite between positions in the physical market and positions in the futures market. To protect parties who hedge from the effects of physical movements that are not in accordance with previous estimates or calculations.

b. As a means of transparent and reasonable price discovery. Basically, futures trading is an alternative discovery / price formation. The term invention or formation of the price is different from price determination. Price formation / discovery is used to explain the process when buyers and sellers agree on a certain price and certain terms of trade.

Apart from the two functions above, futures trading is also an alternative investment. Groups that utilize the exchange for speculators. They take advantage of price changes to look for profits, namely buying futures contracts when prices are low and selling them at high prices. If you believe that the

price will go down, at that time he will buy the contract, and

vice versa.[79]

79 *Ibid*