



PHENOMOLOGICAL STUDY OF DIGITAL CRYPTOCURRENCY ASSET INVESTMENT IN INDONESIA IN ISLAMIC PERSPECTIVE

Rico Nur Ilham¹, Arliansyah², Reza Juanda³, Irada Sinta⁴,
Muhammad Multazam⁵, Frengki Putra Ramansyah⁶

^{1,2,3,4,5,6}Faculty of Economics and Business, Universitas Malikussaleh

⁵Faculty of Economics and Business, Universitas Bumi Persada

*Correspondence: riconurilham@unimal.ac.id

Abstract

Cryptocurrency is one of the investment commodities that can generate returns and already has a permit to be traded in exchange trading through the Indonesian Commodity Futures Trading Supervisory Agency (BAPEPTI). Digital crypto assets traded in Indonesia are quite a lot through the Indodax trading company. The purpose of this study is focused on formulating a risk management process in investing in digital cryptocurrency assets. In addition, the results of this study will produce policy recommendations known as LCTR or "Legal Cryptocurrency and Tax Revenue" which are expected to be considered by the government in formulating policies on digital crypto assets so that the interests of all parties can be accommodated in order to realize maximum state revenue from trading digital crypto asset commodities. This type of research is quantitative descriptive with a research population of 10 cryptocurrency coins with the largest market caps in Indonesia, namely Cryptocurrency Bitcoin (BTC), Ethereum (ETH), Ripple (XRP), Bitcoin Cash (BCH), Litecoin (LTC), Stellar, DASH, Dogecoin, Zcash, Monero in Indonesia. The type of data in this study is time series data taken from January 2017 to December 2020 by conducting a documentation study conducted on the publication of monthly cryptocurrency transaction reports, so that a target population of 480 (4 years x 12 months x 10 coins) monthly report data was obtained for the research sample. The data analysis method in this study uses multiple linear regression and data analysis using e-views statistical software version 10.

Keywords: Cryptocurrency Returns, Islamic Perspective.

INTRODUCTION

Investment in digital currencies is increasingly common throughout the world. The reason is, the potential profitability of cryptocurrencies is high, although at the same time the risks faced by investors are also high. The potential for high profits from cryptocurrency investments is supported by price increases that are beyond common sense. Quoting the coinmarketcap.com site, the price of one of the cryptocurrencies, namely bitcoin on December 31, 2016, was at the level of US\$ 960 for 1 BTC. A year later or precisely on December 31, 2017, the price of 1 BTC was equivalent to US\$ 12,952. This means that the price of bitcoin grew by 1,250% in a year (Rico N. Ilham, 2019). Seeing the profit opportunities in various parts of the world also have a high atmosphere of desire to transact against cryptocurrencies, the details of countries that approve cryptocurrency transactions are emphasized below. [3]

This study will examine the issues that are being debated (Debatable) in the investment world, namely the characteristics of cryptocurrency sales market instruments in Indonesia have similarities with BEI sales market instruments in terms of return and risk. Return is measured by capital gain while risk is measured by capital loss or a decrease in the price of the investment instrument Milano, DO, Rahim, R., & Adrianto, F. (2023). [2] Cryptocurrency or crypto currency is increasingly known by many people in Indonesia. This can be seen from the representation of blockchain whose impact can be enjoyed directly by the community (consumers), and there are still many other potentials that can be explored, so that interest in cryptocurrencies, generally as investment instruments, has actually only increased sharply after the Bitcoin exchange rate experienced a fairly high spike.

Rico Nur Ilham, Arliansyah, Reza Juanda, Irada Sinta, Muhammad Multazam, Frengki Putra Ramansyah

Since Islam entered Arabia, the legal dinar currency has been used among the Quresh community, but those who converted to the Roman dinar with the Arab dinar. (Rahim, A. 2020). 10 dirhams are equivalent to 7 weights in the Meccan community (Rahim, A. 2020). The Prophet Muhammad SAW determined the amount of the dinar currency as practiced by the Meccan community (Ibn Islam: 1986). However, the transition of the nature of money from commodity money with intrinsic value to credit money with nominal value gives the state (issuing authority) more freedom and flexibility in its monetary policy. In fact, monetary stagnation gives the government more flexibility in implementing monetary inflation policies. However, the government is not completely free to criticize. This is because currency is more than just a piece of paper imposed by the government (a political issue); its value is determined by its popularity, or by the acceptance and trust of the community in its ability to satisfy their desires (purchasing power) in the present and future. If it is a mineral: pure or grassy, based on its inherent value; if it can be exchanged, based on its scope and the potential to change the minerals with it (psychological factors). In addition, the country's production capacity (economic factors). Because in fact the commodity exchanged for money is the country's productivity. In fact, that is what determines its purchasing power both at home and abroad (Kuncoro, H. 2021).

Specifically, this study will conduct a Focus Group Discussion by inviting financial experts and leaders of the financial services industry with the aim of collecting input and suggestions from the draft policy recommendations that will be produced from the research process. Because the regulation of the Crypto digital asset market or better known as cryptocurrency in Indonesia is still very minimal, even so, cryptocurrency investment continues to increase. This is marked by the emergence of various exchanges or companies that act as intermediaries in buying and selling crypto assets. In early August 2019, Tokocrypto, a local exchange based in Jakarta, was officially launched. So it is necessary to conduct a study that can provide recommendations on cryptocurrency transaction policies that regulate the pattern of cryptocurrency digital asset trading in Indonesia from an Islamic perspective.

The entire process carried out in this study will produce several instruments in the form of policy recommendations and investment strategy formulations as well as risk control models and are expected to be able to help investors in choosing investment strategies and decisions, especially digital crypto assets in Indonesia by considering risk factors. This is supported by the development of cryptocurrency trading exchange companies, many of which have conducted soft launches in May 2017 and sell two types of crypto, namely Bitcoin and Ethereum. The number of users of this exchange from May to now has been more than 10,000. Another exchange that has been operating since 2014, namely Indodax with the name Bitcoin Indonesia, has 1,337,839 users. Of course, this is a very interesting opportunity in the digital asset trading process for investors in Indonesia, so there needs to be a strategy in implementing risk management, especially in investing in digital cryptocurrency assets.

LITERATURE REVIEW

Capital Asset Pricing Model (CAPM)

Asset pricing models are an important part of finance that is used to predict the relationship between expected return and risk of an asset. Asset pricing models continue to develop along with the many criticisms directed at the first asset pricing model, namely the Capital Asset Pricing Model (CAPM).

Risk Management

Risk management can be defined as a structured and systematic process in identifying, measuring, mapping, developing alternative risk handling, and monitoring and controlling the implementation of risk handling.

Economic Theory of Regulation

Banking regulations in Indonesia are generally implemented in Bank Indonesia regulations through its circulars which are always updated or changed according to the conditions and

Rico Nur Ilham, Arliansyah, Reza Juanda, Irada Sinta, Muhammad Multazam, Frengki Putra Ramansyah

situations of national banking. According to (Siringoringo 2012)^{16]} as the developer of the economic theory of regulation, regulation is an act of group pressure that produces laws and policies to support businesses and protect consumers, workers, and the environment.

METHOD

The program implementation steps required to overcome the problem are as follows:



Figure 1 Research Stage Plan

Population and Sample

The population of this study is all Cryptocurrency digital assets traded on crypto trading exchanges in Indonesia. This study will test 10 (ten) Cryptocurrency coins with the largest market caps in Indonesia, namely Cryptocurrency Bitcoin (BTC), Ethereum (ETH), Ripple (XRP), Bitcoin Cash (BCH), Litecoin (LTC), Stellar, DASH, Dogecoin, Zcash, Monero in Indonesia. Therefore, this study has a difference with previous studies that only examined 1 Bitcoin (BTC), while this study with the largest amount of data, namely using monthly data obtained as much as 480 (4 years x 12 months x 10 coins) data.

Data Types and Sources

The type of data used in this study is secondary data obtained from monthly transaction reports of cryptocurrency digital assets in Indonesia.

Method of collecting data

This study uses an explanatory case study method to explain the influence between variables used in this study through testing the established research hypothesis. While the technique used is Pooled Data. This analysis is used to determine the magnitude of the influence of the independent variable on the dependent variable.

RESULTS AND DISCUSSION

What are the Islamic Views and Perspectives on the process of investing and trading in digital investment assets Cryptocurrency?

In order to realize the objectives of this study in terms of maximizing the potential of Islamic Views and Perspectives in the process of investing and trading digital investment assets Cryptocurrency in order to generate income for the country, the researcher conducted an interview in the financial services industry and capital markets of Indonesia in order to produce a formulation and recommendations in terms of Islamic Views and Perspectives in the process of investing and trading digital investment assets Cryptocurrency.

Rico Nur Ilham, Arliansyah, Reza Juanda, Irada Sinta, Muhammad Multazam, Frengki Putra Ramansyah

To support the results of Novelty in this study which formulates the Fundamental Economic Risk Factors in Increasing the Value of Digital Asset Investment in Indonesia, the author tries to add the opinions of competent experts in the Capital Market and Financial Services Industry by conducting interviews. The informants to be interviewed are as follows:.

1. Head of Bappebti Aceh
2. Head of the Indonesian Stock Exchange, Aceh Province
3. Head of the Financial Services Authority of Aceh Province
4. Head of Phintraco Securities Aceh Branch

The results of the interviews in this study produced several recommendations that could possibly be input for the government in studying Islamic Views and Perspectives in the process of investing and trading in digital investment assets of Cryptocurrency.



Figure 2 Interview with Bappebti Representative

Bappebti Regulation No. 8 of 2021 concerning Guidelines for Organizing Physical Market Trading of Crypto Assets on Futures Exchanges which stipulates that this regulation was made to further discuss the provisions for organizing physical markets for crypto assets. One of them is that three criteria that have been set by Bappebti must be met so that crypto can be traded, including in the form of utility crypto or crypto backed assets, based on ledger technology, and already have assessment results using the analytical hierarchy process (AHP) method.

Although Bappebti has issued several regulations, if it is used as a legal tender in Indonesia, it is still not allowed. Because all the regulations issued are only regulations related to cryptocurrencies that are recognized as assets or commodities that are allowed to be traded and circulated. As stated in Article 1 letter (f) of Bappebti Regulation No. 3 of 2019, crypto assets are included in commodities in the digital asset sector.

Crypto assets include commodities that do not have a physical form, only in the form of digital assets. As in Article 1 paragraph (7) of Perbappebti No. 5/2019 which states that:

“Crypto Assets, hereinafter referred to as crypto assets, are intangible commodities in the form of digital assets, using cryptography, peer-to-peer networks, and distributed ledgers, to regulate the creation of new units, verify transactions, and secure transactions without interference from other parties.”

Based on the results of the interview, the legal basis for regulating crypto can be seen that the Regulation of the Minister of Trade and Bappebti only regulates the recognition of crypto as an asset or commodity and the technique of organizing a physical market for trading crypto assets, as well as the types that can be traded. However, there is no regulation that specifically regulates crypto as a digital investment. Especially since the enactment of Law No. 4 of 2023 concerning the Strengthening and Development of the Financial Sector (PPSK) which states that the OJK will

Rico Nur Ilham, Arliansyah, Reza Juanda, Irada Sinta, Muhammad Multazam, Frengki Putra Ramansyah

regulate or make regulations related to future crypto asset activities or activities, so that the regulation of crypto assets still does not have clear regulations.

The law that is the legal basis for investment in Indonesia at present is Law Number 25 of 2007 concerning Investment. Article 1 paragraph (1) and paragraph (7) states that:

“Investment is any form of investment activity, either by domestic investors or foreign investors to conduct business in the territory of the Republic of Indonesia. And capital is an asset in the form of money or other forms other than money owned by investors that have economic value.”

If viewed from the Article, crypto is included in other forms of capital that are not money but have economic value. Crypto as an investment is included in the financial asset category, namely because crypto is an intangible object that has value and can provide benefits to its owner.

Crypto investment also has an element of openness which is also included in one of the investment principles. The principle of openness is a principle that is open to the public's right to obtain honest, correct, and non-exclusive information regarding the investment being carried out. It is the same as investing in crypto which has a transparent nature due to the presence of blockchain, a system used to store digital transactions that are decentralized, transparent, secure, immutable, and trustworthy. In the world of investment, transparency is shown through the recording of transactions in financial reports that are open to the public. All records of transactions that occur on the blockchain can be opened or viewed by anyone, but at the same time no one can manipulate them because the data has been encrypted.

In general, the types of investment consist of property, gold, savings in banks, deposits, stocks, bonds and mutual funds. Therefore, it can be concluded that crypto is not included in these types of investments. Because crypto is a commodity that is accommodated by Bappebti so that it can be traded on the futures exchange.



Figure 3 Interview with Representative of the Indonesian Stock Exchange

Currently, crypto investment is indeed a trend among millennials, and government regulations have also legalized it. However, crypto still has an element of speculation in it, so there are more elements of harm than benefits, the value of digital currency only follows market share, the price cannot be controlled and no party monitors or checks it, investing here is said to be speculation because it has a game of chance nature which is categorized as *maisir* (gambling). So, if in carrying out investment activities it is not in accordance with Islamic law, such as crypto which is used as a tool for investment, there is still an element of speculation, then the law is haram. When compared to online buying and selling that uses the *salam* contract, where in this case it is quite clear, starting from the buyer and seller who are clear and the goods that can be handed over are also clear. In contrast to crypto as an investment instrument which is still abstract, because of the unclear results of the investment. Therefore, this crypto investment is closer to *gharar* (speculation that can harm others).

Rico Nur Ilham, Arliansyah, Reza Juanda, Irada Sinta, Muhammad Multazam, Frengki Putra Ramansyah

Thus, entrepreneurs or investors must have sufficient knowledge if they want to choose crypto as an investment instrument, the goal is so that they can survive amidst the fairly extreme crypto price fluctuations. Because, in making crypto as an investment instrument, it requires careful preparation and planning regarding technical analysis, fundamental analysis, and in financial management. Technical analysis is needed to minimize the nature of luck (*maisir*), because there is a margin that functions to show how much the maximum price of a cryptocurrency increases and decreases on a given day.



Figure 4 Interview with Phintraco Representative

Hypothesis Testing

Table 1
F Test and T Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
X1	-3.763608	0.697173	-5.398381	0.0000
X2	-0.128047	0.120038	-1.066726	0.2872
X3	-0.000306	8.40E-05	-3.641669	0.0003
X4	-0.008310	0.004501	-1.846218	0.0662
X5	-0.008040	0.003530	-2.277641	0.0237
X6	1.86E-06	1.29E-06	1.437688	0.1519
Z_X1	0.841937	0.277804	3.030683	0.0027
Z_X2	0.169484	0.186994	0.906363	0.3657
Z_X3	0.000213	0.000130	1.641204	0.1021
Z_X4	0.006795	0.007631	0.890385	0.3742
Z_X5	-0.007423	0.011893	-0.624161	0.5331
Z_X6	-3.97E-06	2.32E-06	-1.710158	0.0886
C	3.694364	1.192147	3.098917	0.0022
Effects Specification				
			SD	Rho

Rico Nur Ilham, Arliansyah, Reza Juanda, Irada Sinta, Muhammad Multazam, Frengki Putra Ramansyah

Random cross section		0.000000	0.0000
Idiosyncratic random		0.453008	1.0000
Weighted Statistics			
R-squared	0.561607	Mean dependent variable	0.142107
Adjusted R-squared	0.538432	SD dependent var	0.697110
SE of regression	0.473608	Sum squared residual	50.91720
F-statistic	24.23335	Durbin-Watson stat	1.787175
Prob(F-statistic)	0.000000		
Unweighted Statistics			
R-squared	0.561607	Mean dependent variable	0.142107
Sum squared residual	50.91720	Durbin-Watson stat	1.787175

Source: processed data 2024

F Test

In this study, the number of observations (n) is known to be 140 and the number of parameters (k) is 13, so that $df1 = k-1 = 13-1 = 12$ is obtained; $df2 = nk = 140-13 =$, then at $\alpha = 0.05$ $F_{table} = 1.795$ is obtained. Based on Table 5.2, the Sig value is $0.00000 < 0.05$. So it can be concluded simultaneously that Beta Cryptocurrency (X1), Inflation Rate (X2), Exchange Rate (X3), World Oil Price (X4), Coal Price (X5), World Gold Price (X6), interaction of Beta Cryptocurrency (* Coal Price (X5) with Velocity of Cryptocurrency (Z), and World Gold Price (X6) with Velocity of Cryptocurrency (Z) have a significant effect on Cryptocurrency Return.

t-test

In accordance with (n) = 240, the number of parameters (k) = 13, $df = (nk) = 140-13 = 127$ then at the error level $\alpha = 0.05$, the t table is obtained = 1.970. Based on Table 5.2 it can be explained that:

- It is known that the Beta Cryptocurrency coefficient value against the Return of cryptocurrency is negative, which is -3.763 and the p-value is $0.000 < 0.05$, then Beta Cryptocurrency has a negative and significant effect on the Return of cryptocurrency, meaning that every increase in Beta cryptocurrency by 1 rupiah will significantly reduce the Return of cryptocurrency by 3.76 percent, and vice versa. Based on Table 5.8, it can be explained that:
- It is known that the coefficient value of the Inflation Rate on the Return of cryptocurrency is negative, namely -0.128 and the p-value is $0.287 > 0.05$, so the Inflation Rate has a negative and insignificant effect on the Return of cryptocurrency, meaning that every 0.01 percent increase in the Inflation Rate will reduce the Return of cryptocurrency by 0.12 percent, and vice versa.
- It is known that the coefficient value of the currency exchange rate against the cryptocurrency return is negative, namely -0.0003 and the p-value is $0.0003 < 0.05$, so the currency exchange rate has a negative and significant effect on the cryptocurrency return,

*Rico Nur Ilham, Arliansyah, Reza Juanda, Irada Sinta, Muhammad Multazam,
Frengki Putra Ramansyah*

- meaning that every 1 rupiah increase in the currency exchange rate will significantly reduce the cryptocurrency return by 0.0003 percent, and vice versa.
- d. It is known that the coefficient value of world oil prices on cryptocurrency returns is negative, namely -0.008 and the p-value is $0.066 > 0.05$, so world oil prices have a negative and significant effect on alpha 10 percent on cryptocurrency returns, meaning that every increase in world oil prices of 1 US dollar will significantly reduce cryptocurrency returns by 0.008 percent, and vice versa.
 - e. It is known that the coefficient value of the reference coal price on cryptocurrency returns is negative, namely -0.008 and the p-value is $0.023 < 0.05$, so the reference coal price has a negative and significant effect on cryptocurrency returns, meaning that every 1 US dollar increase in the reference coal price will significantly reduce cryptocurrency returns by 0.008 percent, and vice versa.
 - f. It is known that the coefficient value of the world gold price on cryptocurrency returns is positive, namely 1.86 and the p-value is $0.077 > 0.05$, so the world gold price has a positive and significant effect on alpha 10 percent on cryptocurrency returns, meaning that every increase in the world gold price of 1 US dollar will increase the cryptocurrency return by 1.86 percent significantly, and vice versa.

Moderation Effect Test

- a. It is known that the MRA coefficient value of the interaction of velocity of cryptocurrency_beta cryptocurrency on cryptocurrency returns is positive, namely 0.841 with a T count of $3.030 > 1.970$ and a p-value of $0.002 < 0.05$. This shows that the velocity of cryptocurrency variable is not a moderator variable that affects the relationship between cryptocurrency beta and cryptocurrency returns.
- b. It is known that the MRA coefficient value of the interaction of velocity of cryptocurrency_inflation rate on cryptocurrency returns is positive, namely 0.169 with a T count of $0.906 < 1.970$ and a p-value of $0.365 > 0.05$, this shows that the velocity of cryptocurrency variable is not a moderating variable or cannot moderate the relationship between the inflation rate and cryptocurrency returns.
- c. It is known that the MRA coefficient value of the interaction of velocity of cryptocurrency_currency exchange rate on cryptocurrency returns is positive, namely 0.0002 with a T count of $1.641 < 1.970$ and a p-value of $0.102 > 0.05$. This shows that the velocity of cryptocurrency variable is not a moderating variable or cannot moderate the relationship between currency exchange rates and cryptocurrency returns.
- d. It is known that the MRA coefficient value of the interaction of velocity of cryptocurrency_world oil prices on cryptocurrency returns is positive, namely 0.006 with a T count of $0.890 < 1.970$ and a p-value of $0.374 > 0.05$. This shows that the velocity of cryptocurrency variable is not a moderating variable or cannot moderate the relationship between world oil prices and cryptocurrency returns.
- e. It is known that the MRA coefficient value of the interaction of velocity of cryptocurrency_reference coal price on cryptocurrency returns is negative, namely -0.007 with a T count of $-0.624 > -1.970$ and a p-value of $0.533 > 0.05$. This indicates that the velocity of cryptocurrency variable is not a moderating variable or cannot moderate the relationship between the reference coal price and cryptocurrency returns.
- f. It is known that the MRA coefficient value of the interaction of velocity of cryptocurrency_world gold price on cryptocurrency returns is negative, namely -3.97 with a T count of $-1.710 > -1.970$ and a p-value of $0.08 > 0.05$ but significant at alpha 10 percent. This shows that the velocity of cryptocurrency variable is a moderator variable that moderates the relationship between world gold prices and cryptocurrency returns. This means that the higher the level of velocity of cryptocurrency will strengthen the negative influence of the decline in cryptocurrency returns due to the increase in world gold prices.

*Rico Nur Ilham, Arliansyah, Reza Juanda, Irada Sinta, Muhammad Multazam,
Frengki Putra Ramansyah*

DISCUSSION

The Influence of Cryptocurrency Beta on Cryptocurrency Returns

The results of this study indicate that, if Beta Cryptocurrency (X1) increases, then Return Cryptocurrency (Y) will decrease. The risks inherent in portfolio investments in the form of cryptocurrency can be systematic risk and company-specific risk (unsystematic risk). The investment model in digital crypto assets has the same level of risk as investments in the money market and capital market, in this study it was revealed that the principle of high risk high return does not apply during bearish times in the investment process in the cryptocurrency market. A beta = 1 indicates that the price of cryptocurrency moves according to market movements beta > 1 indicates that the price of cryptocurrency will be more stable in the market.

For example, if a cryptocurrency's beta = 1.2 is theoretically 20% more stable than the market, and vice versa. Cryptocurrencies with beta cryptocurrency > 1.0 pose a higher risk, but provide a higher potential profit, conversely, a cryptocurrency beta < 1.0 poses a smaller risk but also a lower potential profit with Systematic risk caused by external factors of the company, namely macro factors to the economy as a whole, namely risks that cannot be diversified and follow market movements which are also called market risk and are uncontrollable by the company. Systematic risk will affect the market as a whole.

While company-specific risk is a unique and specific risk factor related to company events that can be diversified because they do not follow market movements (Faisal, 2004). Beta is a measure of volatility, or systematic risk and security of a portfolio in the market. Beta is used in the capital asset pricing model (CAPM).

CAPM is a model used to calculate the expected rate of return of an asset based on beta and market, and cost of equity. Remember that the cost of capital is the discount rate used present value and future cash flows. The higher the beta of the company the higher the cost of capital discount rate. Therefore the higher the cost of capital discount rate will affect the decrease in Return on the Cryptocurrency.

The results of this study are in accordance with the results of research by Ismayanti & Yusniar (2014) which shows that the beta risk variable has a negative and significant effect on returns on LQ45 Stocks. Then in line with research conducted by Koskei (2017), Megawati (2018), Rachmatika (2006) and Musyarofah (2015).

The Influence of Inflation Rate on Cryptocurrency Returns

The results of this study indicate that, if the Inflation Rate (X2) increases, then the Cryptocurrency Return (Y) will decrease slightly. Inflation is an event that describes a situation and condition where the price of goods increases and the value of the currency weakens (Muhammad Fahmi et al., 2018).

This study reveals that inflation has a negative but indirect effect on investment in the cryptocurrency market, because the effect of inflation first affects macroeconomic factors and economic growth rates so that the impact of the weakening economic growth of Indonesia can lead to a decrease in investment interest and will be directly proportional to also have a negative impact on decreasing investment returns both in the money market and capital market as well as investment in the cryptocurrency market. Inflation is defined as the tendency for an increase in the price of products as a whole so that there is a decrease in the purchasing power of money (Tandelilin, 2010). Based on the opinions of experts, it can be concluded that inflation is a process of continuous price increases that causes a decrease in the value of currency and people's purchasing power.

In line with Muhammad's (2016) research on the effect of the rupiah exchange rate (exchange rate), inflation and economic growth on stock returns in banking companies listed on the Indonesia Stock Exchange (IDX) for the period 2008-2014, where the results of this study indicate that the rupiah exchange rate (exchange rate) has a significant negative effect on stock returns in banking companies. This study shows that if the rupiah depreciates, it will reduce the level of stock returns.

Rico Nur Ilham, Arliansyah, Reza Juanda, Irada Sinta, Muhammad Multazam, Frengki Putra Ramansyah

The results of this study are in accordance with the results of Suriyani & Sudiarta's (2018) study which showed that the inflation variable has a negative and insignificant effect on property and real estate stock returns. Then the results of this study are in line with several studies conducted by Sathyanarayana & Gargesa (2018), Suriyani & Sudiarta (2018) and Kurniasari et al (2018).

The Influence of Currency Exchange Rates on Cryptocurrency Returns

The results of this study indicate that, if the Currency Exchange Rate (X3) increases, then the Cryptocurrency Return (Y) will decrease. The exchange rate is the price of a currency from a country measured or expressed in another currency. The exchange rate plays an important role in spending decisions, because the exchange rate allows translating prices from different countries into the same language.

This study reveals the fact that if the foreign exchange rate strengthens, what happens is a decrease in investment returns because the flow of Indonesian investment capital in asset transactions in the money market and capital market as well as in the digital crypto asset market must exchange the rupiah exchange rate against foreign currencies, so that the nominal investment to buy an investment instrument will increase in terms of the equity issued and of course will reduce the level of investment returns.

All other things being equal, a depreciation of a country's currency against all other currencies (a rise in the country's foreign exchange rate) makes its exports cheaper and its imports more expensive. An appreciation (a fall in the country's foreign exchange rate) makes its exports more expensive and its imports cheaper. Exchange rates are very important in the foreign exchange market.

The effect of this exchange rate on returns can theoretically be explained as follows; first, for a domestic company or industry whose business activities are more exports and use relatively low import content, then the depreciation of the domestic currency against the US Dollar can increase the company's profit. The increase in profit due to this exchange rate difference can increase the company's stock price. Likewise, conversely, for companies or industries whose business activities are more selling their products domestically and use relatively high import content, then if there is a depreciation of the domestic currency against the US Dollar, it can reduce the company's profit. Ultimately, the decrease in the company's profit can reduce prices.

Likewise, in theory, it can be said that the Rupiah exchange rate against the US Dollar has a positive impact on the return of companies. In evaluating assets, investors always look at the aspect of the estimated rate of return produced by the asset, or the rate of increase in the value of the investment embedded in the asset in the future. The return on savings traded in the foreign exchange market is determined by the interest rate and the estimated change in the exchange rate.

The results of this study are in accordance with the results of research conducted by Pujawati et al. (2015) which showed that the exchange rate variable has a negative and significant effect on stock returns in the hotel industry. The final conclusion of this study is in line with research conducted by Koskei (2017), (Khan, 2019), Pujawati et al. (2015) and (Muhammad, 2016).

The Impact of Oil Prices on Cryptocurrency Returns

The results of this study indicate that, if the World Oil Price (X4) increases, then the Cryptocurrency Return (Y) will decrease. According to (R. Murhadi, 2013) changes in world oil prices that tend to increase, the economy and stock market also tend to decline. However, if you look at the effects, it will be different for oil exporting and oil importing countries, because for oil exporting countries, the increase in world oil prices indicates a transfer of welfare from oil importing countries to oil exporting countries. Conversely, what happens for oil importing countries. Of course, this indicates that oil prices can affect a country's economy, so oil prices are one reflection of changes in economic conditions and changes in the stock market. Although many countries are currently exploring the potential of renewable energy, the importance and dependence on oil in the world cannot be denied, or ignored. Fossil fuels will remain the most important energy source, with oil contributing 33% of the world's total energy sources (IMF, 2011). Renewable

*Rico Nur Ilham, Arliansyah, Reza Juanda, Irada Sinta, Muhammad Multazam,
Frengki Putra Ramansyah*

energy sources only contribute a little to the world's total primary energy supply. This fact certainly makes world oil a macroeconomic factor that influences international trade transactions, including having an impact on trading in financial instruments and financial markets in the world, including transactions in the cryptocurrency market which will be influenced by world oil price trends.

This study reveals the fact that world oil prices will trigger a weakening of the country's economic growth because Indonesia is one of the countries importing oil and this situation will trigger a decline in money market and capital market investments as well as in cryptocurrency market investments so that with the decline in the flow of investment capital that comes in, it will automatically reduce investment returns. The world oil price used is the price of West Texas Intermediate (WTI) crude oil commodities or better known as light sweet oil.

World oil price (WTI) is the spot price of oil which is one of the references for world crude oil prices. The world oil price data used is the closing price at the end of the month. Based on research (Raraga, 2012) Analysis of the influence of oil prices and gold prices on the reciprocal relationship between exchange rates and the composite stock price index (IHSG) on the Indonesia Stock Exchange (IDX) 2000-2013 states that world oil prices (OP), world gold prices (GP), Exchange rates and IHSG in the long term are cointegrated. This means that in the long term there is a balance relationship between OP, GP, Exchange rates, and IHSG.

The results of this study are in accordance with the results of Hutapeadkk's study (2014) which shows that the world oil price variable has a significant effect on the Composite Stock Price Index return. Then this study is in line with the research conducted by R. Murhadi (2013), Marshdeh & Afandi (2017), Kang et al (2015) and Agustin et al (2020).

The Impact of Coal Prices on Cryptocurrency Returns

The results of this study indicate that, if the Coal Price (X5) increases, then the Cryptocurrency Return (Y) will decrease. This study revealed that coal prices will trigger the country's economic growth and investment interest in coal stocks and coal commodities will increase, one of the triggers is also because Indonesia is one of the coal exporting countries and this situation will trigger an increase in money market and capital market investment, but in cryptocurrency market investment the opposite occurs because the increase in investment capital flows entering Indonesia will not automatically increase cryptocurrency investment returns.

Indonesia is one of the world's largest coal producers and exporters. Since 2005, when it surpassed Australia's production, Indonesia has become the world's leading exporter of thermal coal. A significant portion of exported thermal coal consists of medium-grade (between 5100 and 6100 cal/gram) and low-grade (below 5100 cal/gram) types, most of which are demanded by China and India. Based on information provided by the Indonesian Ministry of Energy and Mineral Resources, Indonesia's coal reserves are estimated to run out in approximately 83 years if current production rates continue.

In terms of global coal reserves, Indonesia currently ranks 9th with around 2.2% of the total proven global coal reserves according to the Central Statistical Review of World Energy Agency. Around 60 percent of Indonesia's total coal reserves consist of cheaper low-quality coal (sub-bituminous) which has a content of less than 6100 cal/gram. This fact certainly makes the condition of world coal trade have an impact on Indonesia's economic growth, and the influence of fluctuations in reference coal prices will automatically affect investor transactions in the money market and capital market also providing a surprising effect (Contegent Effect) that spreads to cryptocurrency market trading transactions in Indonesia.

The high index growth in the mining sector shows great investor interest in mining sector stocks which are seen as profitable investment options. Based on data on March 30, 2012, it is known that the total market capitalization value in the mining industry reached Rp. 458.7 trillion or 12% of the total market capitalization value of Rp. 3,877.5 trillion, ranking third in terms of industry capitalization value after the financial sector and the infrastructure, utilities and transportation sectors. The opposite event also occurs when compared to the research of Sumani et al (2012) coal prices and composite stock price index on mining company stock returns, the results of which coal commodity prices and composite stock price index have a significant influence on

*Rico Nur Ilham, Arliansyah, Reza Juanda, Irada Sinta, Muhammad Multazam,
Frengki Putra Ramansyah*

the dependent variable (coal mining company stock returns). The results of this study are in accordance with the leading indicator theory, Traditional stock valuation theory, and wealth effect theory. The results of this study are also inconsistent with the results of Sundari's (2015) study which shows that the coal price variable has a positive and significant effect on the return of mining sector stocks on the Indonesia Stock Exchange. Furthermore, the conclusions in this study are in line with several studies including Ratti & Hasan (2012), Sundari (2015) and Rinowigunanto (2017).

The Influence of World Gold Prices on Cryptocurrency Returns

The results of this study indicate that, if the World Gold Price (X₆) increases, then the Cryptocurrency Return (Y) will increase. This study reveals that Investor sentiment is stronger to direct gold investment if the stock market is sluggish, and one of the other preferred instruments besides gold is the cryptocurrency market because when the economy declines, the price of gold can survive. Cryptocurrency and gold investment instruments are alternative investments and avoid crises or inflation.

Currently, Indonesia produces about 4% of global gold production, half of which comes from the giant Grasberg mine, the world's largest gold mine, in the western region of Papua Island. This mine, which is believed to have the world's largest gold reserves (67.4 million ounces), is majority owned by the US-based Freeport-McMoRan Copper & Gold Inc., making it the largest taxpayer to the Indonesian government. Gold remains an investment whose value is recognized over time and in the long term has increased in price. Not only for investment, gold is often an alternative dowry for marriage so it has many benefits.

In 2019, gold investment became a favorite amidst global economic uncertainty so that its price continued to increase throughout the beginning of this year. In addition to the increasingly high price increase, gold is also a relatively easy and safe investment from inflation increases every year. Gold remains an investment whose price is recognized from time to time and in the long term experiences price increases. Fluctuation here is the change in the rise and fall of gold prices every day. Changes in gold prices in Indonesia always follow world gold prices. Because it follows the world gold price, the price of gold often goes up and down according to global economic conditions.

The rise and fall of gold prices always provide advantages and disadvantages for buyers and sellers. Therefore, gold investment is suitable for the long term because in the long term the gold price trend has experienced a significant increase. This fluctuation in global gold prices certainly has an impact on investor interest when transacting in international trade and financial markets, sometimes the spike in global gold prices will reduce investor interest in financial instrument transactions and stock markets including reducing interest in transactions in the cryptocurrency market in Indonesia.

The world gold price does have an impact on stock market investment when trading is sluggish, as studied by Mukhuti (2018) Impact of Gold Price on Stock Market Return—An Econometric Analysis of BSE and NSE. It is seen that the gold price is a good indicator of how healthy the Indian economy is. Gold investment is more profitable than other investments, the gold market is a strong investment market. Gold is a type of investment that is in demand by investors because it has a relatively low level of risk, functions as a protector of wealth and is not affected by inflation (zero inflation).

The increase in world gold prices will make investors more interested in investing in gold than stocks. This situation will cause the IHSG to fall because investors will flock to sell their stocks to switch to gold. Likewise, if the world gold price falls, many investors will sell their gold and switch to stocks, so that the IHSG will increase. Based on the investment context, initially gold was used as an investment to be on the safe side when economic conditions were uncertain. However, along with the development of the investment world, gold can now be used as one of the main investments to support an investment portfolio. The results of this study are in accordance with the results of Yunita's study (2018) which shows that the world gold price variable has a positive and significant effect on the stock returns of mining sector companies on the Indonesia

Rico Nur Ilham, Arliansyah, Reza Juanda, Irada Sinta, Muhammad Multazam, Frengki Putra Ramansyah

Stock Exchange. Several studies that reveal the same results as this study include PK Mishra et al (2010), Contuk et al (2013) and AR Putra & Robiyanto (2019).

The Effect of X1*Z Moderation on Cryptocurrency Returns

The results of this study indicate that, if X1*Z Moderation increases, then the Cryptocurrency Return (Y) will remain or Constant. This study reveals the fact that the Velocity of cryptocurrency does not affect the relationship between cryptocurrency beta and investment returns so that the higher the rate of turnover of digital crypto assets will not necessarily reduce returns, when digital assets that have been purchased at a certain price are then sold in a short period of time, of course, you have to look at market conditions and economic growth conditions if when selling digital crypto assets during a sluggish economy or stagnant economic growth, the returns obtained will decrease.

The results of this study are in accordance with the results of research by Ismayanti & Yusniar (2014) which showed that the beta risk variable has a negative and significant effect on returns on LQ45 Stocks. Then there is justification in the research conducted by the author showing that the Velocity of Cryptocurrency variable moderates the effect of Beta Cryptocurrency on returns on Bitcoin. Beta Cryptocurrency is a measure of volatility, or systematic risk and security of a Cryptocurrency portfolio in the market. Beta is used in the capital asset pricing model (CAPM).

CAPM is a model used to calculate the expected rate of return of an asset based on beta and market, and cost of equity. Remember that the cost of capital is the discount rate used for the present value and future cash flows. The higher the beta of the company, the higher the cost of capital. The need for investment continues to grow because uncertainty in the future will always exist. Along with the development of the era, investment instruments are also increasingly diverse. Mutual funds as one of the investment instruments with various advantages such as only requiring relatively little capital, having a variety of types according to the risk & return profile and being managed by professionals seem to be a solution for investment instruments for the community, especially the lower middle class.

According to M. Hanafi (2014) risk is the possibility of deviation of actual return from expected return. Risk is one of the important factors that must be considered in investment analysis, because every investment choice always contains risk and this risk affects the profit that investors will get from their investment. Risk is the variability of realized return against expected return. Risk is related to uncertainty. Investors in investing will get a return in the future with an unknown value. Investors in investing tend to avoid the possibility of bearing risk, but investors cannot be free from risk.

The Effect of X2*Z Moderation on Cryptocurrency Returns

The results of this study indicate that, if X2*Z Moderation increases, then the Cryptocurrency Return (Y) will remain or be constant. This study reveals the fact that the velocity of cryptocurrency does not strengthen the negative effect of inflation on cryptocurrency investment returns, meaning that the faster the rate of turnover and transfer of digital crypto assets will not necessarily reduce investment returns, plus the inflation rate will further inhibit the rate of economic growth. Therefore, unstable economic growth and high inflation rates will greatly reduce investment interest in both the money market and capital market as well as investment in the cryptocurrency market so that the returns obtained by investors will decrease.

The results of this study are in accordance with the results of Suriyani & Sudiarta's (2018) study which showed that the inflation variable has a negative but insignificant effect on property and real estate stock returns. There is justification in the author's research which shows that the Velocity of Cryptocurrency variable moderates the effect of the Inflation Rate on Bitcoin returns. Inflation is an event that describes a situation and condition where the price of goods increases and the value of the currency weakens (Lubis, 2012). Inflation is defined as the tendency of an increase in the price of products as a whole, resulting in a decrease in the purchasing power of money (Tandelilin, 2010). According to Suhartati (2013), the effect of financial performance on stock

Rico Nur Ilham, Arliansyah, Reza Juanda, Irada Sinta, Muhammad Multazam, Frengki Putra Ramansyah

returns with inflation as a moderating variable in manufacturing companies listed on the Indonesian Stock Exchange, the results of this study concluded that inflation sensitivity can only moderate the effect of the beta variable on stock returns.

Zaky's (2011) research on the effect of profitability on stock returns with inflation as a moderating variable in manufacturing companies on the Indonesia Stock Exchange in 2005-2009 Inflation in the mild category can moderate (strengthen) the effect of profitability on stock returns. Inflation will increase or decrease the production costs and selling prices of the company's products. In conditions of mild inflation, production costs are lower than the selling price enjoyed by the company (producer), so the company's profitability will increase.

The Effect of X3*Z Moderation on Cryptocurrency Returns

The results of this study indicate that, if X3*Z Moderation increases, then the Cryptocurrency Return (Y) will remain or be constant. This study revealed that the velocity of cryptocurrency does not significantly strengthen the influence of the exchange rate on cryptocurrency returns, this is because considering the determination of the rupiah exchange rate which adopts a free floating system is greatly influenced by the global economy and the size of Indonesia's balance of payments whether it is a surplus or deficit, so that even though the rate of turnover and transfer of digital crypto assets is getting faster, it is not immediately able to increase investment in the digital crypto asset market.

The results of this study are in accordance with the research of Pujawati et al. (2015) which shows that the exchange rate variable has a negative and significant effect on the stock returns of the hotel industry. There is justification in the research conducted by the author and shows that the Velocity of Cryptocurrency variable does not moderate the effect of the Exchange Rate on returns on Bitcoin. The exchange rate is the price of a currency from a country that is measured or expressed in another currency. Meanwhile, research that explains the relationship between the exchange rate variable placed as a moderating variable on stock returns is research conducted by Mantari & Sn (2017) Moderation Effect of Exchange Rate to Signaling Theory Validity in Indonesia Stock Exchange.

The Effect of X4*Z Moderation on Cryptocurrency Returns

The results of this study indicate that, if X4*Z Moderation increases, then Cryptocurrency Return (Y) will be constant or fixed. This study reveals the fact that the Velocity of cryptocurrency does not have an impact on the influence of world oil prices on cryptocurrency market investment returns, this happens because when world oil prices increase it will provide positive sentiment on capital flows entering the money market and capital market but not on the crypto digital asset market so that the price of digital asset commodities will not necessarily continue to increase, when this happens investors must be observant in taking momentum and trading digital assets with a short period of time so that the returns obtained will increase because the faster the movement and turnover of crypto digital assets when the price rises, the higher the returns that will be obtained by investors in the crypto digital asset market.

The results of this study are in accordance with the research of Hutapea et al. (2014) which shows that the world oil price variable has a significant effect on the return of the Composite Stock Price Index. There is justification in the research conducted by the author and shows that the Velocity of Cryptocurrency variable moderates the effect of World Oil Prices on returns on Bitcoin. The world oil price used is the price of West Texas Intermediate (WTI) crude oil or better known as light sweet oil.

World oil price (WTI) is the spot price of oil which is one of the references for world crude oil prices. Based on Raraga's research (2012) Analysis of the influence of oil prices and gold prices on the reciprocal relationship between exchange rates and the composite stock price index (IHSG) on the Indonesia Stock Exchange (IDX) 2000-2013 states that world oil prices (OP), world gold prices (GP), Exchange rates and IHSG in the long term are cointegrated. This means that in the long term there is a balance relationship between OP, GP, Exchange rates and IHSG.

Rico Nur Ilham, Arliansyah, Reza Juanda, Irada Sinta, Muhammad Multazam, Frengki Putra Ramansyah

The Effect of X5*Z Moderation on Cryptocurrency Returns

The results of this study indicate that, if X5*Z Moderation increases, then Cryptocurrency Return (Y) will remain constant. This study reveals the fact that the velocity of cryptocurrency does not have an impact on the influence of coal prices on cryptocurrency market investment returns, this happens because when coal prices increase it will provide positive sentiment on the flow of capital entering the money market and capital market but there is no crypto digital asset market so that the price of digital asset commodities will not necessarily continue to increase, when this happens investors must be observant in taking momentum and trading digital assets with a short period of time so that the returns obtained will increase because the faster the movement and turnover of digital crypto assets when the price rises, the higher the returns that will be obtained by investors in the crypto digital asset market.

The results of this study are in accordance with Sundari's research (2015) which shows that the coal price variable has a positive and significant effect on the return of mining sector stocks on the Indonesia Stock Exchange. Then there is justification in the research conducted by the author and shows that the Velocity of Cryptocurrency variable moderates the effect of Coal Price on Bitcoin returns. Coal is one of the fossil fuels. The general definition is a combustible sedimentary rock, formed from organic deposits, mainly plant remains formed through the coalification process. The main elements are carbon, hydrogen and oxygen. The world's benchmark coal price is obtained from the Intercontinental Exchange Market (ICE) trading which originates from the United States and operates online throughout the world.

In line with the research of Sumani et al (2012) that coal prices and composite stock price indexes on mining company stock returns, the results of which coal commodity prices and composite stock price indexes have a significant influence on the dependent variable (coal mining company stock returns). the results of this study are in accordance with the theory of leading indicators, traditional stock valuation theory, and wealth effect theory, so this study tries to consider systematic risk and unsystematic risk by building other variables to moderate the influence of cryptocurrency risk factors on cryptocurrency returns.

The Effect of X6*Z Moderation on Cryptocurrency Returns

The results of this study indicate that, if the X6*Z Moderation increases, the Cryptocurrency Return (Y) will decrease. This study reveals the fact that the velocity of cryptocurrency has an impact on the influence of gold prices on cryptocurrency market investment returns, this happens because when the price of gold increases it will provide positive sentiment on the flow of capital entering the money market and capital market but this does not happen in the digital crypto asset market so that the price of digital asset commodities will on the contrary experience a significant decline when the price of gold commodities creeps up, when this happens investors must be observant in taking momentum and trading digital assets with a short period of time so that the returns obtained will increase because the faster the transfer and turnover of digital crypto assets when the price rises, the higher the returns that will be obtained by investors in the digital crypto asset market.

The results of this study are in accordance with the research of Pudji Astuti & Yunita Laras Sari (2018) which shows that the world gold price variable has a positive and significant effect on the stock returns of mining sector companies on the Indonesia Stock Exchange. There is justification in the research conducted by the author and shows that the Velocity of Cryptocurrency variable moderates the effect of the World Gold Price on returns on Bitcoin. Gold is the most accepted valuable item worldwide after foreign currencies from the G-7 countries (America, Japan, Germany, England, Italy, Canada and France). Gold is a form of investment that tends to be risk-free (Yuswandy Yoedy, 2013)

Meanwhile, research that explains the relationship between world gold price variables placed as moderating variables on stock returns is the research by Aksinia et al (2014) on the influence of return on equity (ROE) and company size on banking stocks moderated by the gold price variable. Risk factors are usually the dominant factor in investment. This is reflected through stock transactions. The company's stock price changes at any time according to the

Rico Nur Ilham, Arliansyah, Reza Juanda, Irada Sinta, Muhammad Multazam, Frengki Putra Ramansyah

company's performance and the public's assumptions on the condition of the company, but at other times it can be a dominant factor such as in bonds and time deposits. In investments such as bonds and time deposits, the investment period is usually not long (less than 1 year), this type of investment usually prioritizes investment security (low risk) and high liquidity compared to high returns. Investments are limited to real investments that generally involve tangible assets, such as land, machinery, or factories. Financial investments involve written contracts, such as mutual funds, stocks, and bonds (Vidyattama, 2012)

FOCUS GROUP DISCUSSION

To realize the objectives of this study in terms of maximizing the potential for transactions and investments in the Indonesian cryptocurrency market in order to generate income for the country, the researcher held a special public discussion by inviting experts and specialists in the field of the Indonesian financial services industry and capital markets to conduct FGD (Focus Group Discussion) in order to produce a formulation and recommendations in terms of regulating Cryptocurrency Digital Asset transactions.

The term focus group discussion or known as FGD (Focus Group Discussion) is currently very popular and widely used as a method of data collection in social research. FGD is widely known for its advantages in providing convenience and opportunities for researchers to establish openness, trust, and understand the perceptions, attitudes, and experiences of informants. FGD allows researchers and informants to discuss intensively and freely in discussing very specific issues. FGD also allows researchers to collect information quickly and constructively from participants who have different backgrounds. In addition, the group dynamics that occur during the discussion process often provide important, interesting, and sometimes unexpected information.

To support the results of Novelty in this study which formulates the Cryptocurrency Investment Risk Assessment Model or called the "Cryptocurrency Risk Prediction Model", the author tries to add the opinions of competent experts in the Capital Market and Financial Services Industry by conducting a special group discussion (Focus Group Discussion) with the theme Cryptocurrency Versus Stock Exchange. This Group Discussion event was attended by several speakers including:

1. Head of Bappebti Aceh
2. Head of the Indonesian Stock Exchange, Aceh Province
3. Head of the Financial Services Authority of Aceh Province
4. Head of Phintraco Securities Aceh Branch

The results of the Public Discussion (Focus Group Discussion) in this study produced several recommendations that could possibly be input for the government in reviewing the digital crypto asset investment model called "Legal Cryptocurrency and Tax Revenue" or LCTR, which is a recommendation for Cryptocurrency transaction policies and tax levies from digital crypto asset transactions.



Figure 6.8 Focus Group Discussion with Representatives of BEI, Bappebti, OJK and P Phintraco Securities Aceh Branch

Rico Nur Ilham, Arliansyah, Reza Juanda, Irada Sinta, Muhammad Multazam, Frengki Putra Ramansyah

The following is a formulation of recommendations for digital crypto asset transaction and tax collection policies based on the results of the Focus Group Discussion in this study, including:

- a. Bappebti Aceh Region as a regulator and monetary policy formulator has approved Cryptocurrency to be used as an investment commodity in accordance with the Regulation of the Minister of Trade of Indonesia Number 99 of 2019, crypto assets are one of the commodities that can be used as the subject of futures contracts traded on futures exchanges.
- b. Cryptocurrency and similar digital assets are not allowed to replace the function of the rupiah as a means of payment in Indonesia according to Law No. 7 of 2011 concerning Currency. This is because the legal tender in Indonesia is the Rupiah.
- c. Establishing a special Futures Exchange institution that provides Cryptocurrency transaction services and similar digital assets under the direct supervision of the government and the Financial Services Authority, and its implementation must be in accordance with the Regulation of the Commodity Futures Trading Supervisory Agency (BAPEPTI) Number 5 of 2019 concerning Technical Provisions for the Implementation of the Physical Market for Crypto Assets (Crypto Assets) on the Futures Exchange, which states (1) Capital for futures companies is IDR 1.5 trillion, (2) Capital for storing crypto assets is IDR 1.2 trillion, and (3) Capital for trading crypto assets is IDR 1 trillion.
- d. The Financial Services Authority and the Government are preparing regulations regarding the mechanism of Cryptocurrency transactions and similar digital assets so that they can be aligned with the same trading and supervision patterns as the financial institution of the Indonesia Stock Exchange, especially in terms of issuing coins or digital assets called Initial Coin Offerings (ICOs).
- e. Every Cryptocurrency and similar digital asset trading transaction is subject to a transaction tax (Tax Revenue) of at least 0.10% and a maximum of 0.15% of the total transaction value. The results of the transaction tax collection are deposited as state revenue and transaction rates for digital crypto asset futures exchanges according to the agreed portion of the amount. (FGD Cryptocurrency Versus Stock Exchange 2019)

The policy recommendation is called LCTR or "Legal Cryptocurrency and Tax Revenue" and is expected to be a consideration for the government in formulating policies on digital crypto assets so that the interests of all parties can be accommodated in order to realize maximum state revenue from trading in digital crypto asset commodities.



Figure 5 Focus Group Discussion of Religious Figures in Lhoseumawe City

The implementation of cryptocurrency itself is widely opposed by agencies that have authority in several countries. Regulations regarding legal tender have been explained in Law Number 7 of 2011 and Bank Indonesia Regulation Number 17 of 2015. In Indonesia, crypto is

Rico Nur Ilham, Arliansyah, Reza Juanda, Irada Sinta, Muhammad Multazam, Frengki Putra Ramansyah

called Crypto Assets which are currently regulated in Article 1 number 7 of Bappebti Regulation No. 5 of 2019 which defines Crypto Assets which are then intangible commodities in the form of digital assets. Therefore, the use of cryptocurrency cannot be used as a means of payment because legal tender is currency issued or authorized by the state, not crypto. Due to the protection of pricing and provisions that are based on the intrinsic value of gold or the country's currency.

Based on Islamic Economic Law, MUI prohibits the use of cryptocurrency as a currency, it is haram, because it contains *garar darar* and *qimar*. *Garar* in cryptocurrency transactions is because cryptocurrency users are anonymous, the system is vulnerable to hacking activities, and the value of cryptocurrency is not tied to tangible assets or government regulations or laws.



Figure 6 Focus Group Discussion of Religious Figures in Lhoseumawe City

One of the rules in the *fiqh* of *muamalah* "*Al Ashlu Fil Mua'malati Al Ibahah Hatta Yadullu Ad Daliilu Ala Tahrimiha*" which basically all *muamalah* are permissible, unless there is evidence that prohibits it. This principle is part of the basic principle which reads: "*alyaqinu la yuzalu bi sy-syak*" (belief cannot be removed by doubt) which applies to all *muamalah* actions. By adhering to the *fiqh* principle above, because cryptocurrency contains verses about *garar* and *maysir* in the *Qur'an* and *Sunnah*, all forms of activities that use crypto are prohibited because they contain *garar* and *maysir*.

CONCLUSION

Cryptocurrency is one of the investment commodities that can generate returns and already has a permit to be traded in exchange trading through the Indonesian Commodity Futures Trading Supervisory Agency (BAPEPTI). Digital crypto assets traded in Indonesia are quite a lot through the Indodax trading company. The purpose of this study is focused on formulating a risk management process in investing in digital cryptocurrency assets. In addition, the results of this study will produce policy recommendations known as LCTR or "Legal Cryptocurrency and Tax Revenue" which are expected to be considered by the government in formulating policies on digital crypto assets so that the interests of all parties can be accommodated in order to realize maximum state revenue from trading digital crypto asset commodities. This type of research is quantitative descriptive with a research population of 10 cryptocurrency coins with the largest market caps in Indonesia, namely Cryptocurrency Bitcoin (BTC), Ethereum (ETH), Ripple (XRP), Bitcoin Cash (BCH), Litecoin (LTC), Stellar, DASH, Dogecoin, Zcash, Monero in Indonesia.

Based on the results of the data analysis that has been carried out, several conclusions can be drawn from this study, namely as follows:

1. The results of the data analysis show that there is a negative and significant influence of the Beta Cryptocurrency variable on the Return Cryptocurrency. This means that if Beta Cryptocurrency increases, then the Return Cryptocurrency will decrease.

*Rico Nur Ilham, Arliansyah, Reza Juanda, Irada Sinta, Muhammad Multazam,
Frengki Putra Ramansyah*

2. The results of the data analysis show that there is a negative but insignificant influence of the Inflation Rate variable on Cryptocurrency Returns. This means that if the Inflation Rate increases, the Cryptocurrency Return will decrease slightly.
3. The results of the data analysis show that there is a negative and significant influence of the Currency Exchange Rate variable on Cryptocurrency Returns. This means that if the Currency Exchange Rate increases, the Cryptocurrency Return will decrease.
4. The results of the data analysis show that there is a negative and significant influence of the World Oil Price variable on Cryptocurrency Returns. This means that if the World Oil Price increases, the Cryptocurrency Return will decrease.
5. The results of the data analysis show that there is a negative and significant influence of the Coal Price variable on Cryptocurrency Returns. This means that if the Coal Price increases, the Cryptocurrency Return will decrease.
6. The results of the data analysis show that there is a positive and significant influence of the World Gold Price variable on Cryptocurrency Returns. This means that if the World Gold Price increases, the Cryptocurrency Return will increase significantly. The world gold price does have an influence on stock market investment when trading is sluggish.
7. The results of the multiple regression analysis of the MRA model show that the interaction of beta cryptocurrency with the velocity of cryptocurrency does not have a significant effect on the Return of Cryptocurrency. This means that if the interaction of beta cryptocurrency with the velocity of cryptocurrency increases, the Return of Cryptocurrency will remain or be constant. It was revealed that the Velocity of cryptocurrency does not affect the relationship between beta cryptocurrency and the return of digital asset investment so that the higher the rate of turnover of digital crypto asset transfers will not necessarily reduce the return.
8. The results of the multiple regression analysis of the MRA model show that the interaction of the inflation rate with the velocity of cryptocurrency does not have a significant effect on the Return of Cryptocurrency. This means that if the interaction of the inflation rate with the velocity of cryptocurrency increases, the Return of Cryptocurrency will remain or be constant. It is revealed that the velocity of cryptocurrency does not affect the relationship between inflation and cryptocurrency investment returns, meaning that the faster the rate of turnover and transfer of digital crypto assets will not affect investment returns and in the end the inflation rate will still hamper the rate of economic growth.
9. The results of the multiple regression analysis of the MRA model show that the interaction of the exchange rate with the velocity of cryptocurrency does not have a significant effect on the Return of Cryptocurrency. This means that if the interaction of the exchange rate with the velocity of cryptocurrency increases, the Return of Cryptocurrency will remain or be constant. It was revealed that the velocity of cryptocurrency did not significantly affect the relationship between the exchange rate and the return of cryptocurrency, this happened because considering the determination of the rupiah exchange rate which adopts a free floating system is greatly influenced by the global economy and the size of Indonesia's balance of payments whether it is a surplus or deficit, so that even though the rate of turnover and transfer of digital crypto assets is getting faster, it is not immediately able to increase investment in the digital crypto asset market.
10. The results of the multiple regression analysis of the MRA model show that the interaction of world oil prices with the velocity of cryptocurrency does not have a significant effect on Cryptocurrency Returns. This means that if the interaction of world oil prices with the velocity of cryptocurrency increases, then the Cryptocurrency Return will remain or be constant. It was revealed that the velocity of cryptocurrency does not affect the relationship between world oil prices and cryptocurrency market investment returns, this happens because automatically when world oil prices increase, it will provide positive sentiment towards the flow of capital entering the money market and capital market as well as the crypto digital asset market so that the price of digital asset commodities will continue to increase.

Rico Nur Ilham, Arliansyah, Reza Juanda, Irada Sinta, Muhammad Multazam, Frengki Putra Ramansyah

11. The results of the multiple regression analysis of the MRA model show that the interaction of coal prices with the velocity of cryptocurrency has an insignificant effect on Cryptocurrency Returns. This means that if the interaction of coal prices with the velocity of cryptocurrency increases slightly, then the Cryptocurrency Return will remain or be constant. It was revealed that the velocity of cryptocurrency does not affect the relationship between coal prices and cryptocurrency market investment returns, this happens because when coal prices increase, it will provide a contiguous effect or an affected impact that will produce positive sentiment towards capital flows entering the money market and capital market as well as the crypto digital asset market so that the price of digital asset commodities will continue to increase.
12. The results of the multiple regression analysis of the MRA model show that the interaction of gold prices with the velocity of cryptocurrency has a significant negative effect on Cryptocurrency Returns. This means that if the interaction of gold prices with the velocity of cryptocurrency increases, then the Cryptocurrency Return will decrease drastically and significantly. It was revealed that the velocity of cryptocurrency weakens the relationship between the influence of gold prices on cryptocurrency market investment returns, this happens because when the price of gold increases it will provide positive sentiment towards the flow of capital entering the money market and capital market but this does not happen in the crypto digital asset market so that the price of digital asset commodities will decrease because gold has a different market segmentation than other assets because gold tends to be more in demand and is a zero risk investment instrument or has almost no risk.

The following is a formulation of recommendations for digital crypto asset transaction and tax collection policies based on the results of the Focus Group Discussion in this study, including:

1. Bappebti Aceh Region as a regulator and monetary policy formulator has approved Cryptocurrency to be used as an investment commodity in accordance with the Regulation of the Minister of Trade of Indonesia Number 99 of 2019, crypto assets are one of the commodities that can be used as the subject of futures contracts traded on futures exchanges.
2. Cryptocurrency and similar digital assets are not allowed to replace the function of the rupiah as a means of payment in Indonesia according to Law No. 7 of 2011 concerning Currency. This is because the legal tender in Indonesia is the Rupiah.
3. Establishing a special Futures Exchange institution that provides Cryptocurrency transaction services and similar digital assets under the direct supervision of the government and the Financial Services Authority, and its implementation must be in accordance with the Regulation of the Commodity Futures Trading Supervisory Agency (BAPEPTI) Number 5 of 2019 concerning Technical Provisions for the Implementation of the Physical Market for Crypto Assets (Crypto Assets) on the Futures Exchange, which states (1) Capital for futures companies is IDR 1.5 trillion, (2) Capital for storing crypto assets is IDR 1.2 trillion, and (3) Capital for trading crypto assets is IDR 1 trillion.
4. The Financial Services Authority and the Government are preparing regulations regarding the mechanism of Cryptocurrency transactions and similar digital assets so that they can be aligned with the same trading and supervision patterns as the financial institution of the Indonesia Stock Exchange, especially in terms of issuing coins or digital assets called Initial Coin Offerings (ICOs).
5. Every Cryptocurrency and similar digital asset trading transaction is subject to a transaction tax (Tax Revenue) of at least 0.10% and a maximum of 0.15% of the total transaction value. The results of the transaction tax collection are deposited as state revenue and transaction rates for digital crypto asset futures exchanges according to the agreed portion of the amount. (FGD Cryptocurrency Versus Stock Exchange 2019)

Based on Islamic Economic Law, MUI prohibits the use of cryptocurrency as a currency, it is haram, because it contains *garar darar* and *qimar*. *Garar* in cryptocurrency transactions is because cryptocurrency users are anonymous, the system is vulnerable to hacking activities, and the value of cryptocurrency is not tied to tangible assets or government regulations or laws.

*Rico Nur Ilham, Arliansyah, Reza Juanda, Irada Sinta, Muhammad Multazam,
Frengki Putra Ramansyah*

REFERENCES

- Bianchi, D., Guidolin, M., & Pedio, M. (2023). Dynamics of return predictability in cryptocurrency markets. *European Journal of Finance* , 29 (6), 583-611.
- Eduardus, T. (2010). *Portfolio and Investment Theory and Application*. Yogyakarta: Kanisius.
- Field, J., & Inci, A. C. (2023). Risk translation: how cryptocurrency impacts company risk, beta and returns. *Journal of Capital Markets Studies*.
- Ilham, RN, Fachrudin, KA, & Silalahi, AS (2019, October). Positive Effect in Efficient Application of Corporate Social Responsibility in PT. Indonesia Asahan Aluminum as an Indicator for Enhancement Efforts Public Welfare North Sumatra. In 2019 International Conference on Organizational Innovation (ICOI 2019) (pp. 548-552). Atlantis Press.
- Ilham, RN, Erlina, KAF, Silalahi, AS, Saputra, J., & Albra, W. (2019). Investigation of the bitcoin effects on the country revenues via virtual tax transactions for purchasing management. *Int. J Sup. Chain. Mgt Vol*, 8(6), 737.
- Ilham, RN, Erlina, KAF, Silalahi, AS, & Saputra, J. (2019). Comparative of the Supply Chain and Block Chains to Increase the Country Revenues via Virtual Tax Transactions and Replacing the Future of Money. *Int. J Sup. Chain. Mgt Vol*, 8(5), 1066.
- Kuncoro, H. (2021). *Monetary Economics: Case Study in Indonesia*. Bumi Aksara.
- Koutmos, D., King, T., & Zopounidis, C. (2021). Hedging uncertainty with cryptocurrencies: Is bitcoin your best bet?. *Journal of Financial Research*, 44(4), 815-837.
- Milando, DO, Rahim, R., & Adrianto, F. (2023). Analysis of the Influence of World Commodity Price on Bitcoin Price with the Dollar Index as a Moderating Variable. *Journal of Business Economics Informatics*, 1107-1114.
- Rahim, A. (2020). *Development of Islamic Economic Thought*.
- Sambur, M. (2018). Eradication of Criminal Acts of Counterfeiting Currency and Paper Money According to Law Number 7 of 2011 Concerning Currency. *Lex Crimen*, 7(7).
- Sunardi, S., Noviolla, C., Supramono, S., & Hermanto, YB (2023). Stock market reaction to government policy in determining coal selling prices. *Heliyon* , 9 (2)
- Wang, C. (2021). Different GARCH models analysis of returns and volatility in Bitcoin. *Data Science in Finance and Economics*, 1(1), 37-59.
- www.myreceipt.com