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# The Effect Of Inflation, Gold Prices, And Rupiah Exchange Rate Against Stock Price Indices Jakarta Islamic Index (JII) 2010-2019 Period

Frilla Gunariah STIEBS Al-Amin Tasikmalaya gunariahfrilla@gmail.com Irdan Nurdiansyah STIEBS Al-Amin Tasikmalaya Irdannurdiansyah27@gmail.com

#### Abstract

This study aims to find out whether theoretically the variables of inflation, gold price, and exchange rate (exchange rate) as independent variables will affect the Jakarta Islamic Index (JII) stock price index as a dependent variable. The method used in this study is descriptive verification with a quantitative approach. In this study, the researcher uses a non-probability sampling technique, namely a non-random sampling method or a purposive sampling selection technique. The population taken in this study is companies listed on the Jakarta Islamic Index (JII) for the 2010-2019 period with the total population in this study is 30 companies. The tool used to process the data in this study is Eviews9. The data used is secondary data from the Indonesia Stock Exchange (<u>uvuv.idx.go.id</u>) website.

Keywords: inflation, gold prices, rupiah exchange, jakarta islamic index (JII)

#### 1. Introduction

#### Background of the Problem

The capital market is influenced by internal factors and external factors. Investors will qualitatively and quantitatively parse to see a positive Composite Stock Price Index. Meanwhile, the capital market for a country's economy is influential because the capital market is an intermediary for companies that will receive investment funds with the investor community. One of the investment alternatives that can attract investors is stocks. This is marked by the increase in the stock price index as a result of the rapid development of the capital market.

Shares can be interpreted as a certificate of participation or ownership of a person or entity in the company that issued the shares. The form of a stock, namely a

\*Corresponding author : email

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piece of paper, the paper explains that the owner of the paper is part of the owner of the company that issues securities. The share price of issuers listed on the IDX is a member of an index called the Jakarta Composite Stock Price Index (JCI).

In addition to stock exchange activities in accordance with sharia principles, namely *ta'awun*, the stock exchange applies Islamic principles that are in line with the concept of a sharia-based economy. This activity is supported by the fatwa of the National Sharia Council of the Indonesian Ulema Council No. 40/DSN-MUI/X/2003 this fatwa describes the capital market and general guidelines with sharia principles in capital market activities. With the implementation of fatwa No. 40/DSN-MUI/X/2003, we can observe that the stock exchange launched a stock index known as the Indonesian Sharia Stock Index with *the Jakarta Islamic Index* (JII) in which there are company members who meet the sharia criteria listed in the Sharia Securities List (DES).

*The Jakarta Islamic Index* began operating on July 3, 2000, the establishment of JII is inseparable from the cooperation between the Indonesia Stock Exchange and PT *Danareksa Investment Management* (PT DIM) which has the purpose of guiding investors who want to invest their funds in sharia.

The increase in JII stock performance is categorized as a stock with quite good development, but the increase in the index value on JII is not as large as in the JCI. Thus, based on its development, the JII index is more significant than the JCI (Sudarsono, 2004, p. 199)

The establishment of *the Jakarta Islamic Index* (JII) aims to increase investor confidence, this is related to the existence of several sharia concepts that are incorporated into the capital market industry. The growth of *the Jakarta Islamic Index* is influenced by macroeconomic variables including:

inflation, gold prices and exchange rates (*exchange rates*). The growth of fluctuating inflation variables will have an influence on the capital market, so these factors can potentially increase or decrease risks in investing.

Inflation is an increase in the price level of goods and services in general over a certain period of time (Madura, 2007, p. 128). In this case, it is said that inflation is a picture of unhealthy economic conditions, this is caused by a decrease in people's purchasing power with an increase in prices. The higher the inflation rate, the worse the economy will have a negative impact on the decrease in the purchasing power of money and reduce the level of real income that investors will get on their investments. Inflation in Islam, according to Islamic economist Taqiuddin Ahmad ibn al-Maqrizi (1364M-1441 A.D.), who was one of Ibn Khaldun's students, classifies inflation into two groups, namely *Natural Inflation* and *Human Error Inflation* (Karim, 2001).

#### 1. Natural Inflation

This natural inflation can be interpreted as inflation that occurs directly naturally, where each individual has no control over its prevention. But Ibn-al-Maqrizi said that this inflation is caused by factors caused by the increase in aggregate demand (AD) and the decrease in aggregate supply (AD).

2. Human Error Inflation

Apart from the causes referred to in natural inflation, inflation is caused by other things such as the fault of humans themselves. This can be classified as *Human Error Inflation* or False Inflation.

So in theory inflation will have a negative effect on the movement of the stock price index. This research is in line with (Septian et al., 2012, p. 735) The inflation rate has a negative effect on the JII stock index. Fluctuations in gold prices will have an impact on investment in JII.

Gold is a *global currency* whose value is universally recognized (J. Kurniawan, 2013, p. 25). Gold has an intrinsic value that is very liquid so it can be sold anywhere. The price of gold can affect stock indices because when gold decreases, people prefer to invest in gold that has low risk or allows them to get high profits in the future. This has a significant impact on the JII stock index.

Research put forward by (Septian et al., 2012, p. 75) that gold prices have no effect on the JII stock index, in contrast to research according to (Putri & Rizal, 2019, p. 63) gold prices have a significant influence on the JII stock price index. A weakening of the exchange rate will result in price instability in the JII stock market.

The exchange rate (*exchange rate*) is the price in the exchange between two different types of currencies, in the exchange of the two currencies there is a comparison of value or price. This comparison of values is called the *exchange rate*. The real exchange rate is the nominal exchange rate that has been corrected with relative prices, namely: domestic prices compared to prices abroad (Akbar, 2017, p. 4). Globally, macroeconomic variables such as inflation, gold prices and exchange rates will affect investor activity in investing in JII. The following data is in the form of a table of variable inflation, gold prices, exchange rates and JII for the 2010-2019 period:

Tahun.	Inflasi		Harga <u>Emas</u>		Nilai Jukar (KURS)		<mark>Indeks Harga</mark> Saham (JII)	
2010	5,13		12,81		9,11		6,51	
2011	5,38	Ť	13,03	î	9,08	Ţ	6,45	Ļ
2012	4,28	Ļ	13,16	î	9,15	Ť	6,54	Î
2013	7,09	Ť	13,11	Ţ	9,25	Ť	6,60	Ť
2014	6,56	Ļ	13,11	2-22	9,38	Ť	6.50	Ļ
2015	6.38	Ļ	13.19	î	9.51	Ť	6.47	1
2016	3.53	Ļ	13.23	Ť	9.50	1 L	6.53	Ť
2017	3.81	Ť	13.31	î	9.54	Ť	6.59	Î
2018	3.20	Ļ	13.37	Ť	9.60	1	6.53	1
2019	3.03	Ļ	13.43	Ť	9.59	Ŧ	6.54	Î

The table data above shows the inflation value, gold price, exchange rate *and the* Jakarta Islamic Index (*JII*) *stock price index* for the 2010-2019 period. Theoretically, inflation, gold prices, and exchange rates (*exchange rates*) as independent variables will affect the Jakarta *Islamic Index* (JII) stock price index as dependent variables. Meanwhile, the data above shows fluctuations in the three variables which shows that the data is different from the theory.

Based on table 1, it shows the development of inflation data for the 2010-2019 period where inflation tends to decrease significantly, where according to the theory, when inflation decreases, the stock price index rises. Meanwhile, the growth of gold prices for the 2010-2019 period illustrates an increase where in theory when the price of gold rises, the stock index decreases, this is not in accordance with what is depicted in the table above. Fluctuations in the exchange rate (*exchange rate*) have increased, in theory it is said that the exchange rate (*exchange rate*) rises (weakens) then the stock price index will decrease. This is not in accordance with the theory in table 1.

Based on this background, the researcher is interested in conducting a study entitled "The Influence of Inflation, World Gold Prices and Exchange Rates on the Jakarta Islamic Index (JII) Stock Price Index for the 2010-2019 Period"

## 2. Literature Review Inflation

According to Adiwarman, inflation means an increase in the general price level of commodity goods and services over a certain period of time (Karim, 2010, p, 135). Meanwhile, according to Eduardus Tandelin, inflation is a tendency to increase the price of products as a whole. Inflation itself is a monetary phenomenon that occurs everywhere. An increase in the price of just one or two goods cannot be called negligent inflation if the increase extends (or causes an increase) to other goods (Ayu Tri Utami and Leo Herlambang, 2017, p, 73) A high inflation rate is usually associated with an *overheated* economic condition.

This means that economic conditions experience demand for products that exceed the supply capacity of the product, so prices tend to increase. Inflation that is too high also causes a decrease in *purchasing power of money*. In addition, high inflation can also reduce the level of *real* income that investors get from their investments. On the other hand, if a country's inflation rate decreases, then this is a positive signal for investors along with the risk of decreasing money purchasing power and the risk of declining real income.

#### **Gold Price**

Gold is a common form that represents money due to its rarity, durability, divisibility, resistance to mold and ease of identification, often associated with silver (Management et al., 2021, p. 39). Silver is usually legal tender, with gold as the metal for monetary reserves. It is difficult to manipulate the standard of gold to match the economic need for money, providing a lack of practical flexibility to the measurements that central banks might otherwise use to respond to economic crises.

Since 1968, the London gold market standard has been used as a benchmark for world gold prices. Where the system used is known as *London Gold Fixing*. The pricing process is carried out twice a day, namely at 10.30 (Gold A.M) and 15.00 (Gold P.M). The currencies used in determining the price of gold are the United States Dollar, British Pound Sterling and Euro. The price used as the benchmark price of the world gold contract is the closing price or Gold P.M (Astuty & Permana, 2020, p. 221).

#### Exchange Rate (Exchange Rate)

The exchange rate is a comparison of the value between two currencies. According to (Brealey, Myears, 2007, p. 64) The exchange rate is the amount of currency of a country required to buy one unit of another country's currency. Meanwhile, according to (Gitman, 2009, p. 4) the definition of exchange rate is the value of two currencies that are compared to each other. The definition of exchange rate according to (Bodie, 2008, p. 180) is that the exchange rate is a value where domestic currency can be converted into foreign currency. The exchange rate plays an important role in achieving monetary stability and to support the national economy. A stable exchange rate is necessary to create a conducive climate for business activities.

#### Jakrata Islamic Index (JII) Stock Price Index

The Stock Price Index is a form of historical information that is considered very appropriate to describe stock price movements in the past, is a stock price index that provides a description of stock prices at a certain time or in a certain period. Stock price indices have a variety of presentation forms, among others (Sunariyah, 2011, p. 139):

- 1. Individual Stock Price Index
- 2. Composite Stock Price Index

*The Jakarta Islamic Index* is intended as a benchmark to measure the performance of an investment in stocks with a sharia basis. To determine the stocks that will be

included in the calculation of the index, the selection order is carried out as follows (Abdul Manan, 2009, p. 16)

# 3. Research Methods Dependent Variables

Dependent variables or bound variables, namely variables whose values are influenced by independent variables. The dependent variable in this study is the *Jakarta Islamic Index* (JII) as the Y variable.

## **Independent Variables**

Independent Variable or independent variable, which is a variable that is the cause of or affected by the dependent variable. The independent variables in this study are Inflation X1, Gold Price X2, Exchange Rate (*exchange rate*) X3.

## Population

The population taken in this study is companies listed on the Jakarta Islamic Index (JII) for the period 2010 to 2019. The number of population in this study is 30 companies.

#### Sample

The sample in this study uses *a non-probability sampling* method , namely a nonrandom sampling method or a *puposive sampling selection technique* 

#### **Data Source**

The data sources used in this study are in the form of secondary data, data on related companies and *listings* on the *Jakarta Islamic Index* during the period of 2010-2019. Data was obtained from official websites such as www.bps.go.id, www.idx.co.id dan situs lainnya yang berkaitan dengan data seperti www.finance.yahoo.com, <u>www.bi.go.id</u>, <u>www.logammulia.com</u>

## **Data Collection Techniques**

#### 1. Secondary Data Collection

In this study, the data used is secondary data with a method of collecting observation data obtained through the www.idx.co.id internet site, www.bi.go.id, namely in the form of information on companies listed on the *Jakarta Islamic Index*.

#### 2. Library Research

That is the collection of information data related to this research, by reading, studying and exploring books, problems and scientific literature that support theoretical research in the preparation of this thesis.

#### 3. Studi Internet (Internet Research)

In connection with the limited reference sources from the existing library, the author searches and collects data through related websites to obtain additional literature, journals, and other data. By indirectly visiting the company through the object being researched by accessing published sites such as www.idx.co.id and other documents related to data such as www.finance.yahoo.com, www.bi.go.id, www.bps.go.id, www.logammulia.com.

#### **Hypothesis Testing**

## 1. Descriptive Analysis

Descriptive statistical analysis is an analytical test tool used in a study that aims to present data on research objects. In the quantitative type, descriptive analysis is arranged in the form of tables, curves, or diagrams as basic materials to be explained narratively and descriptively (Deni K. Yusup, 2015, p. 24).

#### 2. Classical Assumption Test

Classical assumption testing is needed to provide certainty that the regression equation or regression model used has accuracy in estimation, cannot and is consistent.

#### a) Normality Test

If the skewness and kurtosis ratios are between -2 and +2, it can be said that the data is normally distributed. The Jarque-Bera test can be satisfied if the probability value of Jarque-Bera is greater than 0.05 which means that the data is normally distributed. On the other hand, if the probability value of Jarque-Bera is less than 0.05, the data is not distributed normally, so the data normality test is not met.

#### b) Multicollinearity Test

If the values in the correlation matrix are below 0.8, then there is no multicollinearity between independent variables, then the model can be used in the analysis. However, on the other hand, if the value of the correlation matrix is above 0.8, multicollinearity occurs among independent variables, so that the multicollinearity test is not met.

#### c) Heteroscedasticity Test

In this study, to detect heteroscedasticity problems was carried out by *the Breusch-Pagan-Godfrey* test. If the P-value obs\*R-squered>0.05 then there is no heteroscedasticity. However, on the other hand, if the P-value obs\*R-Squered<0.05 value occurs, heteroscedasticity occurs, so the heteroscenidity test is not fulfilled

#### 3. Uji Autokorelasi

This autocorrelation generally occurs in *time series data*. The consequence of the autocorrelation in the model is that the estimator is inefficient and the usual t-test and F-test are invalid even though the estimation results are not biased. Regression models are either free of autocorrelation or no autocorrelation problems. A data test that can be used to examine the possibility of autocorrelation is the *Durbin-Watson test* (*D-W Test*).

#### Time Series Data Analysis

In selecting the right *time series* model , there are three approaches used, namely *the Common Effect Model*, *Fixed Effect Model*, *and Random Effect Model* as follows:

## a) Pooled Least Square (PLS) atau Common Effect Model

In panel data processing, the PLS model is the simplest approach. PLS regresses regardless of the *cross-section* and *time series properties* of the data.

## **b)** Fixed Effect Model

The FE Model or Least *Square Dummy Effect* (LSDV) or *Covariance Model* allows for heterogeneity between subjects by assigning a separate intercept value for each entity. The FE model is a way to estimate time series data using dummy variables to capture intercept differences.

#### c) Random Effect Model

In this model, intercepts are assumed to be random from large population values by taking into account errors or *cross sections* and *time series*. *The Random Effect Model* is a model that assumes that the coefficients of slope of the constant and intercept differ between individual objects and intertemporarily. The weakness in the *Fixed Effect Model* that results in reduced parameter efficiency can be overcome by *the Random Effect Model* using *Generalized Least Square* (GLS). To determine the type of *time series* data, there are several stages that can be done as follows:

#### a) Chow Test

If the Cross-Section *probability value* is F>0.05, it means that the *Common Effect* model is more accurate compared to the *Fixed Effect model* 

#### b) Hausman Test

If the probability value (*Prob.*)*Cross-Section Random*> 0.05 *means that the Random Effect model* is more accurate compared to *Fixed Effect*.

## c) Uji Langrange Multiplier (LM)

The *Breusch-Pagan* Probability (BP) value <0.05 means that the *Random Effect* model is more precise. The *Breusch-Pagan* Probability (BP) value >0.05 means that the *Common Effect model* is more precise.

# Determination Coefficient Test (R<sup>2</sup>)

The magnitude of the determination coefficient ( $R^2$ ) is located between 0 to 1 or 0% to 100%. Based on that, if  $R^2 = 0$ , the model does not explain the percentage variation of variable X to variable Y. Model fit is better if  $R^2$  is closer to 1, so that the model formed or the independent variable used is able to explain the percentage variation of the dependent variable perfectly. So the limit of the value of the determination coefficient is  $0 \le R^2 \le 1$ .

## **Hypothesis Testing**

## 1. Model Testing

Basically, the F test shows whether all the independent variables included in the model have a joint influence on the dependent variables or to see the suitability of the F test model is the initial stage of identifying the regression model that is estimated to be feasible or unfeasible. Feasible here means that the model that is estimated to be suitable for use to explain the influence of independent variables on bound variables. This name is called the F test because it follows the F distribution whose test criteria if the Prob.Fcal value is less than 5% (which has been determined) ( $\propto$ calculated < 0.05) and Fcal > Ftable, then it can be said that the independent variables together are able to explain the dependent variable significantly or the estimated regression model is feasible, while the Prob value. Fcal > of 5% ( $\propto$ calculate > 0.05) and Fcal < Ftable, it can be said that the independent variable is not able to explain the dependent variables together or the estimated regression model is not feasible.

## 2. Hypothesis Testing

The t-test generally shows how much influence an individual independent variable has in explaining the dependent variable. The test was carried out using a significance level of 0.05 (  $\propto$ =5%). Acceptance or rejection of a hypothesis is carried out with the following criteria:

If the Prob. (  $\propto_{calculate}$ ) > 0.05 and calculate < ttable, then H0 is accepted and Ha is rejected (the regression coefficient is not significant) which means that partially the independent variable does not have a significant influence on the dependent variable.

If the Prob. (  $\propto_{calculate}$  ) < 0.05 and calculate > ttable, then H0 is rejected and Ha is accepted (significant regression coefficient) which means that partially the independent variable has a significant influence on the dependent variable.

# 4. Results and Discussion Normality Test



From the graph above, the results of the normality test with the probability value JB calculated as 0.176250 > 0.05 so that it can be concluded that the residual (data) is normally distributed, which means that the classical assumption about normality has been fulfilled.

## **Multicollinearity Test**

	ЛІ	INFLASI	HARGA_EMAS	NILAI_TUKAR
лі	1.000000	-0.032421	0.038087	0.051766
INFLASI	-0.032421	1.000000	0.667234	-0.611564
HARGA EMAS NILAI_TUKAR	0.038087 0.051766	0.667234 -0.611564	1.000000 0.103058	0.103058 1.000000

Based on the table above, the results of the multicollinearity test above can be seen that the value of the correlation matrix shows that the value of each variable is not more than 0.90 or < 0.90. Therefore, it can be concluded that there is no symptom of multicollinearity between the three independent variables.

## Heteroscedasticity Test

Heteroskedasticity Test: White					
F-statistic	0.086553	Prob. <u>F(</u> 3,80)	0.9672		
Obs*R-squared	0.271761	Prob. Chi-Square(3)	0.9652		
Scaled explained SS	0.132137	Prob. Chi-Square(3)	0.9877		

Based on the table above, it can be concluded that the regression model is free from the heteroscedasticity problem, the result is shown by the probability value of Obs\*R-square of 0.9652 which is much greater than 0.05 so that the heteroscedasticity assumption for regression testing has been fulfilled.

#### Uji Autokorelasi

1-statistic	39.28581	Prob. E(2,79)	6	0.0000
Obs*R-squared	41.88582	Prob. Chi-Sq	<u>uare(</u> 2)	0.0000
Test Equation:				
Dependent Variable: R	ESID			
Method: Least Squares				
Date: 06/10/21 Time:	11:02			
Sample: 1 900				
Included observations:	900			
Presample missing val	ue lagged resid	luals set to zero	).	
Variable	Coefficient	Std. Error	t-Statistic	Prob.
~				
X1	-0.138168	0.500098	-0.276282	0.7831
X1 X2	-0.138168 -0.202981	0.500098 1.396792	-0.276282 -0.145319	0.7831 0.8848
X1 X2 X3	-0.138168 -0.202981 0.278210	0.500098 1.396792 0.962821	-0.276282 -0.145319 0.288953	0.7831 0.8848 0.7734
X1 X2 X3 <u>RESID(</u> -1)	-0.138168 -0.202981 0.278210 0.719636	0.500098 1.396792 0.962821 0.113375	-0.276282 -0.145319 0.288953 6.347401	0.7831 0.8848 0.7734 0.0000
X1 X2 X3 <u>RESID(</u> -1) <u>RESID(</u> -2)	-0.138168 -0.202981 0.278210 0.719636 -0.015600	0.500098 1.396792 0.962821 0.113375 0.113572	-0.276282 -0.145319 0.288953 6.347401 -0.137361	0.7831 0.8848 0.7734 0.0000 0.8911
X1 X2 X3 <u>RESID(-1)</u> <u>RESID(-2)</u> R-squared	-0.138168 -0.202981 0.278210 0.719636 -0.015600 0.498641	0.500098 1.396792 0.962821 0.113375 0.113572 Mean depend	-0.276282 -0.145319 0.288953 6.347401 -0.137361	0.7831 0.8848 0.7734 0.0000 0.8911 7.46E-05
X1 X2 X3 <u>RESID(-1)</u> <u>RESID(-2)</u> R-squared Adjusted R-squared	-0.138168 -0.202981 0.278210 0.719636 -0.015600 0.498641 0.473255	0.500098 1.396792 0.962821 0.113375 0.113572 Mean depende S.D. depende	-0.276282 -0.145319 0.288953 6.347401 -0.137361 lent var nt var	0.7831 0.8848 0.7734 0.0000 0.8911 7.46E-05 0.528345
X1 X2 X3 <u>RESID(-1)</u> <u>RESID(-2)</u> R-squared Adjusted R-squared S.E. of regression	-0.138168 -0.202981 0.278210 0.719636 -0.015600 0.498641 0.473255 0.383458	0.500098 1.396792 0.962821 0.113375 0.113572 Mean depende S.D. depende Akaike info o	-0.276282 -0.145319 0.288953 6.347401 -0.137361 lent var nt var criterion	0.7831 0.8848 0.7734 0.0000 0.8911 7.46E-05 0.528345 0.978505
X1 X2 X3 <u>RESID(-1)</u> <u>RESID(-2)</u> R-squared Adjusted R-squared S.E. of regression Sum squared resid	-0.138168 -0.202981 0.278210 0.719636 -0.015600 0.498641 0.473255 0.383458 11.61616	0.500098 1.396792 0.962821 0.113375 0.113572 Mean depende S.D. depende Akaike info of Schwarz critt	-0.276282 -0.145319 0.288953 6.347401 -0.137361 lent var nt var criterion erion	0.7831 0.8848 0.7734 0.0000 0.8911 7.46E-05 0.528345 0.978505 1.123196
X1 X2 X3 <u>RESID(-1)</u> <u>RESID(-2)</u> R-squared Adjusted R-squared S.E. of regression Sum squared resid Log likelihood	-0.138168 -0.202981 0.278210 0.719636 -0.015600 0.498641 0.473255 0.383458 11.61616 -36.09720	0.500098 1.396792 0.962821 0.113375 0.113572 Mean depende S.D. depende Akaike info o Schwarz critt Hannan-Quir	-0.276282 -0.145319 0.288953 6.347401 -0.137361 lent var nt var rriterion erion m criter.	0.7831 0.8848 0.7734 0.0000 0.8911 7.46E-05 0.528345 0.978505 1.123196 1.036665

Based on table 12 The results of the autocorrelation test show *Durbin Watson's number* of 1.938978, this value will be compared with DW with the number of observations (n) = 84, the number of independent variables (k) = 3 and the significance level of 0.05 obtained the value of dL = 1.5723 and the value of dU = 1.7199 therefore DW = 1.938978 is above dU = 1.7199 but below 4-dU = 2.280 (1.7199  $\leq$  1.938978  $\leq$  2.280) so that it is obtained:

Positif	Tidak Ada	Tidak Ada	Tidak Ada	Negatif Autokorelasi
Autokorelasi	Keputusan	Autokorelasi	Keputusan	
dL = 1.5723	dU= 1.7199	1.938978	4-dU= 2.280	4-dL= 2.4277

Since  $(1.7199 \le 1.938978 \le 2.280)$ , DW is between the values of dU and 4-dU (dU  $\le d \le 4$ -dU), the hypothesis that there is no positive and negative autocorrelation in the regression model cannot be rejected or accepted, meaning that the model does not contain an autocorrelation problem.

## Test Data Panel

**Chow Test** 

Redundant Fixed Effects Tests Equation: Untitled Test cross-section fixed effects					
Effects Test	Statistic	d.f.	Prob.		
Cross-section F	41.596263	(20,60)	0.0000		
Cross-section Chi-square	226.719173	20	0.0000		

Based on table 13, a F\_hitung value of 41.596263 was obtained with a P-value of 0.0000. Because the P-value is smaller than  $\alpha$  = 5% or 0.05, the H0 hypothesis which states that we must choose the *Common Effect* model technique, so the model used in this study is the *Fixed Effect model*.

#### Uji Hausman

Correlated Random Effects -	Hausman Test		
Test cross-section random ef	fects		
	Chi-Sa.		
Test Summary	Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	1162.333897	3	1.0000

Based on table 14, the *Chi-square* value is calculated as 1162.333897 with a P-value of 1.0000. Because the p-value is greater than  $\alpha = 5\%$  or 0.05, the *Random Effect* approach is more appropriate.

#### Uji Langrange Multiplier (LM)

Lagrange multiplier (LM) test for panel data Date: 06/10/21 Time: 12:06 Sample: 2010 2019 Total panel observations: 900 Probability in ()					
Null (no rand. effect) Alternative	Cross-section One-sided	Period One-sided	Both		
Breusch-Pagan	103.0225	1.691423	104.7140		
	(0.0000)	(0.1934)	(0.0000)		
Honda	10.15000	-1.300547	6.257510		
	(0.0000)	(0.9033)	(0.0000)		
King-Wu	10.15000	-1.300547	2.452983		
	(0.0000)	(0.9033)	(0.0071)		
GHM	1221	1221	103.0225		
			(0.0000)		

Based on table 15, the *Breusch-Pagan* critical value of 0.0000 in the *Cross-section* model is less than  $\alpha$  = 5% or 0.05, then the H0 hypothesis is rejected, it can be concluded that the model chosen is the *Random Effect* technique because it is more appropriate to estimate the type of *Cross-Section data*.

Based on the results of *the Chow Test, Hausman Test,* and *Lagrange Multiplier Test* which stated that the selected model from the three models used was the *Random Effect model*.

#### **Panel Data Analysis**

#### Y = 18.04564 + -1.277504 X1 + 2.990705 X2 + -16.38739 X3

From the data regression model of the panel can be explained:

- 1. The value of the Inflation variable regression coefficient of 18.04564 > 0 means that if Inflation increases, the JII Stock Price Index will increase.
- The value of the variable coefficient of Gold Price is -1.277504 < 0, then, if the price of gold decreases, the JII Stock Price Index decreases.
- 3. The value of the variable regression coefficient of gold prices of -16.38739 < 0 means that if the amount of the exchange rate decreases, the JII Stock Price Index decreases

# Hypothesis Testing Test t

Total	panel (bala	anced) observatio	ns: 900	
Cross	s-sections is	ncluded: 30		
Perio	ds included	1: 10		
Samp	ole: 2010 20	019		
Date:	06/10/21	Time: 11:50		
Meth	od: Panel I	least Squares		
Depe	ndent Vari	able: JII		

Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	18.04564	8.626099	2.091982	0.0407
INFLASI	-1.277504	0.503142	-2.539054	0.0137
HARGA_EMAS	2.990705	1.097650	2.724645	0.0084
NILAI_TUKAR	-16.38739	9.312975	-1.759630	0.0836

In the table above for the variable Rupiah Exchange Rate Per US Dollar shows a p-value of 0.0836 with  $\alpha$  = 5% (0.05) then Ho is accepted, meaning from this test that there is no influence between the Exchange Rate variable (*Exchange Rate*) on the JII Stock Price Index.

#### Test F

12			1
R-squared	0.933464	Mean dependent var	3.630432
Adjusted R-squared	0.907958	S.D. dependent var	0.529953
S.E. of regression	0.160779	Akaike info criterion	-0.582615
Sum squared resid	1.550995	Schwarz criterion	0.111905
Log likelihood	48.46981	Hannan-Quinn criter.	-0.303424
F-statistic	36.59853	Durbin-Watson stat	2.070166
Prob(F-statistic)	0.000000		
<u>1</u>			

The statistical test used to test this simultaneous hypothesis is the F test. In table 17 above, it can be seen that the p-value is 0.000000, with  $\alpha$  = 5% (0.05) then Ho is rejected. Therefore, it can be concluded that the variables of Inflation, Gold Price and Rupiah Exchange Rate have a significant effect on the JII Stock Price Index.

#### **Regression Estimation Results (***R square***)**

Dependent Variable: 1 Method: Panel Least 9 Date: 06/10/21 Time Sample: 2010 2019 Periods included: 10 Cross-sections includ	III Squares : 11:50 ed: 30			
Variable	Coefficient	Std. Error	t-Statistic	Prob.
c	18.04564	8.626099	2.091982	0.0407
INFLASI	-1.277504	0.503142	-2.539054	0.0137
HARGA EMAS	2.990705	1.097650	2.724645	0.0084
NILAI_TUKAR	-16.38739	9.312975	-1.759630	0.0836
	Effects Spe	ecification		
Cross-section fixed (d	ummy variable	es)		
R-squared	0.933464	Mean depend	lent var	3.630432
Adjusted R-squared	0.907958	S.D. depende	ent var	0.529953
S.E. of regression	0.160779	Akaike info	criterion	-0.582615
Sum squared resid	1.550995	Schwarz crit	erion	0.111905
Log likelihood	48.46981	Hannan-Qui	nn criter.	-0.303424
F-statistic	36.59853	Durbin-Wats	on stat	2.070166
Prob(F-statistic)	0.000000			

From Table 18, it can be seen that the magnitude of the correlation coefficient is Inflation (X1), Gold Price (X2), and Exchange Rate (X3). The R-Square value in Table 4.11 is 0.933464 indicating that the proportion of the influence of Inflation (X1), Gold Price (X2), Exchange Rate (X3) on the variables of the JII Stock Price Index is 93.3464%. This shows that Inflation, Gold Price, and Exchange Rate affect the JII Stock Price Index by 93.3464%. While the remaining 6.6536% is influenced by other variables that are not in the regression model.

#### 5. DISCUSSION

#### 1. The Effect of Inflation on the Jakarta Islamic Index (JII) Stock Price Index

From the results of the research that has been explained above, the Inflation variable affects the *Jakarta Islamic Index Stock Price Index* for the 2010-2019 Period. This can be seen from the results of the negative coefficient value obtained is -1.277504 and the significance of the T test is 0.0407 < 0.05. A variable coefficient marked negative means that every increase in the inflation value will result in a decrease in the JII Stock Price Index. It is indicated that this is due to the increase in the price of goods and services which results in negative sentiment for investors, especially in the capital market.

The results of the study are in line with the research of Rusbariani (2012) which states that the inflation rate has a negative and significant effect on the JII stock price index. However, this result is not in line with Ananto's (2011) research that the inflation variable has no effect on the JII stock price index variable.

#### 2. The Effect of Gold Prices on the Jakarta Islamic Index (JII) Stock Price Index

From the results of the research that has been explained above, the Gold Price variable affects the Jakarta *Islamic Index Stock Price Index* for the 2010-2019 Period. This can be seen from the results of the coefficient value obtained is 2.990705 and the significance of the T test is 0.0084 < 0.05. The variable coefficient shows that every increase in the Gold Price will decrease the JII Stock Price Index.

The results of the research are in line with previous research from Marsha Gustiani (2014) where the Gold Price has a significant effect on the JII stock price index. Meanwhile, this study is contrary to the research of Sangkyun Park (2006) that the price of gold has no effect on the stock price.

#### 3. Effect of Exchange Rate on Jakarta Islamic Index (JII) Stock Price Index

From the results of the research that has been explained above, the rupiah exchange rate variable per US Dollar has no effect on the *Jakarta Islamic Index* Stock Price Index for the 2010-2019 Period. This can be seen from the results of the coefficient value obtained is -16.38739 and the significance of the T test is 0.0836 < 0.05. The weakening of the rupiah exchange rate in a period of 5 years has various fluctuations that affect the Indonesian economy, such as higher import activities than low export activities. The volatility of the currency exchange rate will also have an impact on the financing of business activities, especially export-import-oriented companies. Indonesia has a high dependence on goods, especially imported inputs. Even though the rupiah exchange rate weakened, Indonesia still had to import inputs or finished goods.

From the conclusion mentioned above, it can be said that Indonesia is in a fairly high position of vulnerability in its import sector. Interested parties must start opening the domestic market for domestic products. Fiscal and monetary policies should be directed to revive the real sector oriented towards the import substitution industry (ISI) (Eko Atmadji, 2004:46).

Based on the results of the research conducted, the results of this study are in accordance with the research conducted by Ananto (2011) which stated that Inflation, Gold Prices and the Rupiah Exchange Rate per US Dollar have a significant effect on the JII Stock Price Index. However, it is not in line with the research of Rahardjo Sugeng (2010) and Ardelia Rezeki Harsono Saparila Worokinasih (2018) that the rupiah exchange rate has no effect on the Stock Price Index.

#### 6. Conclusion

From the research that has been carried out, and has also been explained in the previous chapters, the following conclusions can be drawn:

- 1. Inflation affects the Jakarta Islamic Index (JII) stock price index.
- 2. Gold prices affect the Jakarta *Islamic Index* (JII) stock price index.
- 3. The exchange rate *has* no effect on the Jakarta *Islamic Index* (JII) stock price index.

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