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ANALYSIS OF THE FACTORS AFFECTING ECONOMIC GROWTH IN INDONESIA FROM 2005-2021

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ABTRACT

The purpose of this study was to determine the effect of exports, tax revenues and the rupiah exchange rate on economic growth in Indonesia in 2005-2021. This study uses time series data in the form of exports, tax revenues, and exchange rates in 2005-2021. This study uses secondary data sourced from the Central Bureau of Statistics, Bank Indonesia. Then the data is processed using the Eviews 10 application, after which the data is processed using the OLS (Ordinary Least Square) regression analysis tool and using the classic assumption test. By showing that the analysis of the Coefficient of Determination is 60.3% that exports, tax revenues and the exchange rate affect Indonesia's economic growth by 60.3% while the remaining 39.7% is influenced by variables or other factors not included in this research model.
***Keywords**: Economic growth, Exports, Tax Revenues, Exchange Rates*

INTRODUCTION

Economic growth is the development of economic activities that causes the increasing of the goods and services that society produces, so the prosperity of prosperity increases (Sukino, 1994) . Economic growth isa long-term economic problem and economic growth is an important phenomenon the world has seen recently, resulting from the problems in the areas of the pendemic covid-19

The process of economic growth has another name, modern economic growth. Economic growth is defined as pipeline bruto/ GDP growth whether it is rising faster or slower from population growth and there is or is not a change in economic structure (Lincolin, 1997). According to (Sukirno, 2004), a country's macroeconomic growth analysis measures the development of real income in the region or the country.

Economic growth is also referred to as the process of increasing the production of goods and services in a society's economic activity. In this case, national revenues are increasing according to the benchbruto product value. National development aims to achieve relatively high economic growth, and to bring about increased living and well-being of all people.

Indonesia's economic growth from 2005-2021 will continue to fluctuate. Indonesia's highest economic growth rate in 2010 was 6.22% and the lowest in 2020 was 2.97%. This low economic growth in 2020 is due to the weakening of the global economy caused by the Covid-19 pandemic which caused the weakening of the world economy. This challenge is quite tough, especially in the middle of 2020. The Indonesian economy in 2020 had an unstable movement, so the Indonesian government has issued several policies to curb the spread of pandemics, but this policy has reduced the number of households (RT) and the consumption of non-profit institutions that serve households, although these two consumption is very low. This is due to contraction in gross domestic product (PDB).

Export and tax revenues play an important role in economic performance within a country or region. Exports will produce currency that will be used to finance imports of raw materials and capital goods giving added value to the production process that will form added

value. The amount of added value produced by all units of production in the economy is the value of Gross Domestic Product. Taxes were used to build Indonesia.

In Government Regulation No. 10 of 2021, export is an activity to remove goods from customs areas. The customs area is an area of the Republic of Indonesia consisting of western areas, waters, and air covering all areas within the exclusive economic zone (ZEE). The export activity of a country is because it is capable of producing large amounts of goods or services according to market needs. Every export activity runs automatically a country gets an income called foreign exchange. So the bigger the export activity goes, the bigger the country gets foreign exchange.

Tax revenue is a state that comprises state tax revenues and international trade tax revenues. According to (Waluyo, 2009) taxes are as citizen tax fees to countries (forced) that are owed by the obligation to pay them according to public regulations by failing to return a direct, designated return performance, which is useful for paying public expenses on state duties governing governments.

Exchange rates become crucial when a country needs to make economic transactions with another. Because the currency used was different, for example between Indonesia and the United States. Simply put, exchange rates can be interpreted as the price of a domestic currency for another country's currency. The price of one currency against another is called a exchange rate. Exchange rate is one of the most important issues in the open economy because it has a huge impact on current transaction scales and other economic variables. The exchange describes the price of one currency for another state's currency, also the price of one organism (Krugman, 2005).

The aim of the study is to see how exports, tax revenues, and exchange rates can affect both partial and simulated economic growth in Indonesia.

METHODS

The methods used in this study examine factors that affect economic growth in an area or country such as Indonesia. The study uses a quantitative analysis approach to measure effect between variables.

Types and Data Sources

This study used qualitative and quantitative data with the following explanations (Kuncoro, 2009):

1. Qualitative data are data that are not numbered, such as B. An overview of Indonesia's export trends, tax revenues, exchange rates and economic growth.
2. Quantitative data is data in the form of Indonesia's economic growth rate over the past 17 years (2005-2021).

In the material excavated from this study, secondary data, namely H. Data collected and published by data collection institutions, are used. This research data was obtained from the results of the BPS and Bank Indonesia publication on exports, tax revenue, exchange rates, and economic growth in Indonesia for the period of 17 years (2005-2021).

Data Analysis Method

To test hypotheses in research using multiple regression models is used to test the influence of multiple independent variables on one dependent variable and is generally expressed in the following equation:

$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$

Where :

Y = Economic Growth, %

α = Constants

b1,b2,b3 = Regression coefficient

X1 = Exsports, million US$

X2 = Tax revenue, billion Rp

X3 = Kurs, Rp

E = Error Term

Further the data will be analyzed in quantity with regression using eviews 10.

RESULTS AND DISCUSSION

Data Analysis

The effects of exports, tax revenues, and exchange rates on Indonesia's economic growth can be seen in the following analysis.

Classic Assumption Test

The data used in this study are time series data, so as shown in Table 1. classical acceptance tests include multicollinearity tests, residual normality tests, autocorrelation tests, heteroscedasticity tests, and model-specific or linearity tests.

Table 1 . Econometric Model Estimation Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.610365	10.30230	0.447508	0.6619
X1	3.23E-06	7.23E-06	0.446068	0.6629
LOG(X2)	0.298037	0.910780	0.327233	0.7487
X3	-2.82E-05	1.09E-05	-2.583670	0.0227
R-squared	0.603998	Mean dependent var		5.313529
Adjusted R-squared	0.512613	S.D. dependent var		0.807666
S.E. of regression	0.563857	Akaike info criterion		1.894291
Sum squared resid	4.133146	Schwarz criterion		2.090341
Log likelihood	-12.10147	Hannan-Quinn criter.		1.913779
F-statistic	6.609377	Durbin-Watson stat		2.374804
Prob(F-statistic)	0.005974			

Test Diagnosis

1. Multicollity (VIF)
   X1 = 3.781; X2= 9.017; X3= 4.343
2. Residual Normality
   JB(2) = 7.382; Prob.JB(2)= 0.024
3. Autocorrelation
   $x^2(3) = 2.782; Prob.x^2 = 0.2488$
4. Heterosticiity
   $x^2(8) = 14.765$; Prob. $x^2(8) = 0.0976$
5. Linearity
   F(1,12)= 0.965; Prob. F(1,12) = 0.345

Source: back up eviews 10

Multicoliniery Test

The VIF test is used as a multicollinearity test. The VIF test occurs when the VIF value for the independent variable is 10 10. According to Imam Ghozal (2001), methods for detecting multicollinearity in regression models can be seen as follows:

1) The variable inflation factor (VIF) without multicollinearity in the regression model is a value (VIF) of 10.
2) The degree of derivation tolerance in regression without multicollinearity is tolerance. 10.
3) If the tolerance is 00 1010, then there is a multicollinearity problem in the study.

The results of the VIF multicollinearity test are presented in Table 2

Table 2. VIF Test Results

Variable	VIF	Criteria	Conclusions
X1	3.781	<10	Not Causing Multicoliniery
X2	9.017	<10	Not Causing Multicoliniery
X3	4.343	<10	Not Causing Multicoliniery

Source: back up eviews 10

Residual Normality Test

Test the normality of the two-residences using the Jarque Bera (JB) test. The JB test H_0 is a normal residual distribution, while the JB test H_A is an abnormal residual distribution. $H_0$is accepted if the p-value, probability, or empirical significance of JB ≥α traits ; while the $H_0$is rejected if the p-value, probability or empirical statistical significance of JB ≤ α .

On the Table 1. can be viewed as the p, probability, or significance of ric for data of economic growth, exports, tax receipt, and exchange rate by 024 which means that > 0.05, can be drawn to the conclusion that residual distribution can be said to be normal.

Autocorrelation Test

According to (Ghazali, 2013), this autocorrelation test uses a linear regression model to test whether there is a correlation between noise error and error during the previous t-1 period. Autocorrelation tests were tested with the Breusch-Godfrey (BG) test. The H_0 of the BG test is that there is no autocorrelation in the estimated model. H_0 is accepted if the p-value, probability or statistical empirical significance of the test x^2 BG > α. H_0 is rejected if the p-value, probability, or empirical significance of the x^2 test BG ≤ α.

On the Table 1. see the p, probability, or significance of Labour for economic growth, exports, tax revenues, and exchange rates by 0248 > 10; Can be drawn to the conclusion that it cannot be autocorrelation in a projected model.

Heterosticidicity Test

The white test will be used to test heterosticality. H_0 test white is there is no heterosity problem in the projected model. While the H_A white test was that there was a heterosity problem in the projected model. Heterosseticity test results are presented in Table 3.

Table 3. Heterosticidicity Test

Heteroskedasticity Test: White

F-statisti	5.140822	Prob. F(9,7)	0.0211
Obs*R-squared	14.76599	Prob. Chi-Square(9)	0.0976
Scaled explained SS	15.64668	Prob. Chi-Square(9)	0.0746

Source: back up eviews 10

At Table 3. can be seen that the p, probability, or significance of the stastistic examination of x^2 white tests is at 0.0976 > 0.10. Might be drawn to the conclusion that $H_0$the white test is there is no heterosity problem in the projected model.

Model Specification Test

This study used the Ramsey Reset test. The specification of the estimation model H_0 is either exact or linear. Whereas H_A model-specific estimations are not exact or linear. $H_0$is accepted if the p-value, probability or empirical significance of the Ramsey Reset test > α ; $H_0$is rejected if the p-value, probability, or empirical significance of the restored F-test Ramsey Reset is ≤ α. Ramsey Reset test results are shown in Table 4.

Table 4. Test Ramsey Reset

	Value	Df	Probability
t-statistic	0.982831	12	0.3451
F-statistic	0.965956	(1, 12)	0.3451
Likelihood ratio	1.316149	1	0.2513

Source: back up eviews 10

From Table 4. can be seen the p, probability, or significance of the statistics f test employee reset by 0345 > 10; Then it can be concluded that the acceptable H_0 means correct estimates or linear model specifications.

Determined Coefficient Test (R^2)

The coefficient of Determination (R-Squared or R^2) indicates that the model is approximated. From Table 1. it is seen that R^2 has a value of 0.603 or 60.3% that exports, tax revenues, and exchange rates affect Indonesia's economic growth of 60.3% while the rest is 39.7% influenced by other variables or factors not included in this study model.

The Validity Test Of Influence (T Test)

The validity test of influence testing the significance of the influence of independent variables on its own. The validity test of influence is also called a t test.

Table 5. Test T

Variable	Sig.t	Criteria	Influence conclusion
X1	0.663	> 0.10	Not of significance
X2	0.758	> 0.10	Not of significance
X3	0.023	≤ 0.05	Significance exists α = 0.05

Source: back up eviews 10

Testing was done using a one - way test with a hypothesis as follows:

a. Ho = inequality β_1 = 0, which is indenpenden variables (exports, tax revenues, and exchange rates) there is no effect of significance on a dependent variable (economic growth)
b. Ha = β_1 > 0 which means independent variables (export, tax revenues, and exchange rates) affect a dependent variable (economic growth).
c. Significance: 0.05 (5%)

Criteria of the test :
If $t_{count} < t_{table}$ the Ho and Ha was rejected.
If $t_{count} > t_{table}$ the Ho was rejected and Ha.

Table 6. Full Model Regression

Variable	Coefficient	Std. Error	t-Statistic	Prob.

C	4.610365	10.30230	0.447508	0.6619
X1	3.23E-06	7.23E-06	0.446068	0.6629
LOG(X2)	0.298037	0.910780	0.327233	0.7487
X3	-2.82E-05	1.09E-05	-2.583670	0.0227

Based on the results of Eviews 10 calculation in Table 6. we obtain the following complete model regression equation:

Y = 4.610 + 3.23E-06 X1 + 0.210 X2 – 2.82E-05X3

The interpretation of the above regression equation is:

1. The above equation gives a constant value of 4,610. The value of this constant indicates that the economic growth rate is 4.610% when exports, tax revenues and exchange rates are zero.
2. The regression coefficient of the export variable of 3.23E-06 is that if exports increase by 1 percent then economic growth will increase by 3.23 percent assuming that the tax revenue variable and exchange rate do not change.
3. The regression coefficient of the size of tax revenue is 0.210 which is H. If tax revenue increases by 1 percent then economic growth accelerates by 0.210% assuming that export volume and exchange rate do not change.
4. The regression coefficient of exchange rate variable or exchange rate is -2.82E-05 if the rupiah is depreciated by 1 percent then economic growth will slow by -2.82E-05% assuming that there is no change in exports and tax revenue.

CONCLUSION

Based on the above export research results, tax revenue and exchange rates will affect Indonesia's economic growth in 2005-2021. From this it can be concluded that exports, tax revenues and exchange rates have a positive and partially significant effect on economic growth in Indonesia. The regression results show that if the export variable increases by one percent, Indonesia's economic growth will increase by 3.23% assuming that the tax revenue variable and exchange rate do not change. The regression coefficient of the size of tax revenue of 0.210 means that if tax revenue increases by one percent, economic growth will increase by 0.210% assuming export variables and exchange rates do not change. The regression coefficient of the exchange rate variable or exchange rate of -2.82E-05 means that if the rupiah weakens by one percent, economic growth decreases by -2.82E-05% assuming that the export and tax revenue variables do not change. From the analysis of the coefficient of Determination 60.3% that exports, tax revenues, and exchange rates affect Indonesia's economic growth of 60.3% while the rest 39.7% is influenced by other variables or factors not included in this study model.

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