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ANALYSIS OF THE INFLUENCE OF FISCAL POLICY ON ECONOMIC GROWTH WITH INVESTMENT AS A MODERATING VARIABLE IN INDONESIA

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Abstract

This research aims to know the influence of tax and government expenditure on economic growth with investment as a moderating variable in Indonesia. The population in this research is Indonesia, and 24 of them were selected to be the samples for this research through a purposive sampling technique. This research uses multiple regression analysis techniques. This study's data type is secondary data, consisting of tax and government expenditure for economic growth for 2000-2024. This research showed that tax and government expenditures partially significantly affect economic growth in Indonesia. At the same time, simultaneously (f-test), Tax and Government Expenditure significantly affect the variables of Economic Growth. The investments cannot moderate the relationship between Tax and Government Expenditure on Economic Growth.

Keywords: *tax, government expenditure, investment and economic growth*

1. INTRODUCTION

In Indonesia, fiscal policy has played an important role in various periods, especially in facing global and domestic economic challenges. Manik et al. (2024) state that fiscal policy in Indonesia significantly influences aggregate demand in both the short and long term. This policy can increase consumption and investment, encouraging economic growth. The history of implementing fiscal policy in Indonesia shows that the government used this instrument to overcome various economic crises, such as the monetary crisis in the late 1990s and the impact of the global recession 2008. During the COVID-19 pandemic, fiscal policy has become increasingly crucial in maintaining economic stability and supporting economic recovery. The pandemic caused a significant economic contraction in various sectors, reduced state income, and increased unemployment. The Indonesian government implemented various fiscal policies to overcome this challenge, such as increasing government expenditure and providing fiscal incentives.

Ma'ruf and Andriansyah (2022) revealed that the fiscal policies implemented during the pandemic, including social protection programs, direct cash assistance, and support for the health sector, have helped encourage economic growth and reduce the negative impact of the pandemic on the Indonesian economy. Increasing public spending, especially in health and social welfare, helps maintain people's purchasing power and encourages economic activity amidst social restrictions (Sari et al., 2024). Tax is a fiscal policy instrument that greatly influences economic growth. Soemahamidjaja stated that tax is a mandatory contribution in the form of money or goods given by the people to the state based on legal norms. Its use covers the costs of producing collective goods and services to achieve community welfare. Taxes have a high contribution to state revenue. If state revenue from the tax sector is high, the government can distribute it to some strategic programs. Through this policy, the government can achieve the goals set and encourage economic growth (Aji, 2023). Government expenditure is one part of fiscal policy, which the government makes to regulate the level of revenue and expenditure each year, which is regulated in the APBN (State Revenue and Expenditure Budget) (Nahumuri, 2019).

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Government expenditure generally influences and has an impact on an economy. Public expenditure by the government aims for stability in the context of development to form a capital unit at the level of economic growth. In government expenditure, various sectors in the economic sector influence the value of the expenditure made by the government, including the production sector, the distribution sector, the public consumption sector, and the economic balance sector (Rahmawati, 2022). Good economic growth can indicate a country's success in carrying out the wheels of development. Economic development requires investment support, one of the main sources of economic growth. Capital investment activities produce investments that will continue to increase the capital stock. Furthermore, increasing capital stock will increase productivity, production capacity, and quality, encouraging economic growth and labor absorption (Khakim, 2022).

2. LITERATURE REVIEW

2.1 Economic Growth

Economic growth is an increase in the ability of an economy to produce goods and services. Economic growth refers to quantitative changes and is usually measured using gross domestic product (GDP) data or income or output per capita (Nanga, 2005). Activities in the economy that cause goods and services produced in society to increase and society's prosperity to increase is the concept of economic growth. A country's ability to produce goods and services can increase over time. High economic growth is a dream for all countries (Pujoalwanto, 2014). Thus, from the definition above, it can be concluded that economic growth is a country's ability to increase GDP (Gross Domestic Product) in the long term to produce more goods and services that will be enjoyed and consumed by the population in that country (Sanitra, 2020)

2.2 Investment

According to Sukirno (2002), investment activities enable society to continuously increase economic activities and employment opportunities, increase national income, and increase the level of prosperity of society. This performance originates from three important functions of investment activities, namely (1) investment is a component of aggregate expenditure, national income, and employment opportunities; (2) the increase in capital goods as a result of investment will increase production capacity, (3) investment is always followed by technological development.

2.3 Tax

Tax is a mandatory contribution or levy that people pay to the state and their use for the benefit of the government and the general public. People who provide taxes feel the benefits of taxes directly because taxes are for public interests, not personal ones. Taxes are one source of government funds for development, both central and regional governments. Enforcement of tax collection is carried out based on Indonesian law (Mangkoesoebroto, 1995).

2.4 Government Expenditures

There are several budget policies in fiscal policy: balanced, surplus, and deficit. Generally, a balanced budget is a condition where demand equals expenditure. A surplus budget means expenditures are less than revenues. Meanwhile, a deficit budget means the expenditure budget exceeds the revenue. If the government wants to overcome the inflation problem, it can use a surplus budget.

Meanwhile, if the government wants to overcome the problem of unemployment and increase economic growth, it can use the deficit budget. If the government plans to increase economic growth to reduce unemployment, it can increase its spending. Government expenditure consists of routine expenditure or regional apparatus expenditure and development expenditure or public service expenditure (Anitasari and Soleh, 2014).

2.5 Framework

Following the description of the background of the problem, literature review, and previous research, a conceptual research framework is as follows:

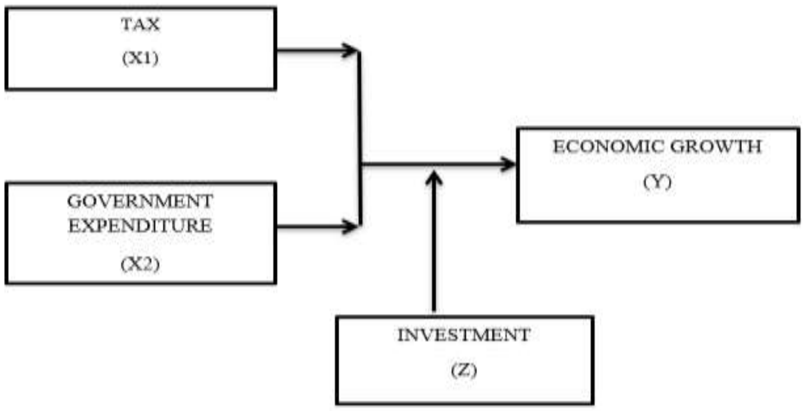

Figure 1.
Conceptual Framework

2.6 Theoretical Framework and Relationships Between Variables

2.6.1 The Relationship between Taxes and Economic Growth

In increasing economic growth in Indonesia through development spending or capital, the source comes from tax revenues. Tax is crucial for states and non-tax revenue, such as oil and gas and non-oil and gas (Sumaryani, 2019). If tax revenues are high, it can trigger a country to increase government spending, create a good investment climate, fund development in the regions that can influence job creation, and maintain the inflation rate by controlling the money circulating in society not too much by collecting taxes. Moreover, it spurs the economy, ultimately creating economic growth (Perwira, 2019).

H1: Tax revenue has a positive influence on economic growth in Indonesia

2.6.2 The Relationship between Government Expenditures and Economic Growth

Government expenditure is part of fiscal policy, namely a government action to regulate the running of the economy by determining the amount of government revenues and expenditures each year, which is reflected in the National State Budget (APBN) and Regional Revenue and Expenditure Budget (APBD) documents for the regions or regional. This fiscal policy aims to stabilize prices, output levels, and employment opportunities and spur or encourage economic growth. Thus, government expenditure, such as the use of capital expenditure, can exactly increase economic growth. So, government expenditure, such as capital expenditure, has a positive relationship with economic growth (Wijaya, 2019).

H2: Government expenditure has a positive influence on economic growth in Indonesia

2.6.3 The Effect of Investment in Moderating Tax Revenues and Government Expenditures on Economic Growth

Tax is one of the factors considered when considering direct investment from international businesses. This is per research conducted by Ball et al. (2014), who stated that taxes focus on increasing state income and reducing foreign investment. It means that the more complex the tax regulations in a country are, the less interest foreign investors will have in carrying out foreign direct investments. According to Ball et al. (2014), there is a relationship between taxes and Foreign Direct Investment because taxation is a financial force that significantly impacts Foreign Direct Investment. If it can reduce government tax intervention, it will tend to attract foreign investors to undertake Foreign Direct Investment because low taxes can result in small costs.

Domestic investment is one of the main drivers in increasing production and industrial competitiveness in Indonesia. With domestic investment, local companies can increase production capacity, adopt new technology, and expand market reach. It will help increase the production of goods and services, positively contributing to overall economic growth. Apart from that, domestic investment also significantly impacts job creation. With increasing domestic investment, local companies may expand their operations and need an additional workforce. This increase in employment will help reduce the unemployment rate and increase people's income, encouraging inclusive economic growth.

H3: Investment Can Moderate Taxes and Government Expenditures on Economic Growth in Indonesia

3. IMPLEMENTATION METHOD

The data analysis method in this research is multiple regression analysis and residual testing for moderating variables. This research data was processed using the SPSS (Statistical Package for Social Science) program. Multiple regression analysis intends to predict the condition of the dependent variable when it is related to two or more independent variables. To test the moderating variable, we chose to use the residual test. With multiple regression equations in model I and residual tests in model II. According to Arikunto (2010), the population is the object of study. The population in this research is Taxes, Government Expenditures, Economic Growth, and Investment. The sample is a part or representative of the population that is the object of research. The research samples are taxes, government expenditures, economic growth, and investments in Indonesia from 2000 to 2023.

4. RESULTS AND DISCUSSION

4.1 Classic Assumption Test Results

The condition for using a multiple regression model with the Ordinary Least Square (OLS) method is that all classical assumptions are met so that the test results are not biased and efficient (Best Linear Unbiased Estimator/BLUE). The classical assumption tests carried out in this research include the normality test and the multicollinearity test.

1. **Normality Test**

The normality test used is the Kolmogorov-Smirnov test. Data is declared normally distributed if the significance is greater than 0.05. The following is a table of normality test results:

Table 1.
One-Sample Kolmogorov-Smirnov Test Result

N		24
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	.87142123
Most Extreme Differences	Absolute	.102
	Positive	.102
	Negative	-.096
Test Statistic		.102
Asymp. Sig. (2-tailed)		.200[c,d]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.
d. This is a lower bound of the true significance.

Source: Data Processing Results, 2024

Table 1 shows that the significance value is 0.200. This value is greater than 0.05, meaning the data is normally distributed.

2. Multicollinearity Test

The multicollinearity test aims to test whether a correlation is found between the independent variables in the regression model. In a good regression model, there should be no correlation between independent variables. Multicollinearity testing is carried out by looking at the VIF between independent variables.

Table 2.
Multicollinearity Test Result

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Tax	.063	15.802
	Gov Expenditure	.063	15.802

Source: Data Processing Results, 2024

The results of the multicollinearity test show that the two independent variables, Tax and Government Expenditure, do not have multicollinearity because the tolerance value of the two independent variables is above 0.10, and the VIF value of the three independent variables is below 10.

4.2 Hypothesis Testing

1. Linear regression of taxes and government expenditure on economic growth in Indonesia

To obtain regression results between the independent variables (Taxes and Government Expenditures) and the dependent variable (Economic Growth), secondary data originating from BPS was used, which was recorded from 2000-2023 and processed using the help of a computer program. The following are the results of data processing using the OLS (Ordinary Least Square) method.

Table 3.
Regression Results
Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	4.418	.414		10.674	.000
	Tax	3.702	.000	2.268	3.201	.004
	Gov Expenditure	2.643	.000	2.283	3.222	.006

Source: Data Processing Results, 2024

From the regression results above, the following estimation model form is :

Y = 4.418 + 3.700 X1 + 2.643 X2

2. Interpretasi Model

Based on the estimation model above shows that the influence of the independent variables, namely Tax (X1) and Government Expenditures (X2) on Economic Growth in Indonesia as follows:

a) Tax

Taxes positively affect economic growth in Indonesia. It is shown by the regression coefficient X1, which is 3.702. It means that for every 1% increase in taxes, economic growth will increase by 3,702% (ceteris paribus).

b) Government Expenditure

Government expenditure positively affects economic growth in Indonesia. It is indicated by the value of the regression coefficient X2, which is 2.643. It means that for every 1% increase in government spending, economic growth will increase by 2,643% (ceteris paribus).

3. Individual Regression Coefficient Testing (Statistical t Test)

a) Tax

The Tax variable's t-calculated value was 3.201 with a probability (significance) value of 0.025. Thus, Ha is accepted because the probability value is smaller than the value 0.05 (0.004 < 0.05) and t-count > t-table (3.201 > 2.08). It means that the tax has a real (significant) effect on the economic growth in Indonesia, as tested at a confidence level of 95% (= 5%).

b) Government Expenditures

For the Government Expenditure variable, the t-calculated value was 3.222 with a probability (significance) value of 0.006. Thus, Ha is accepted because the probability value is smaller than the value 0.05 (0.006 < 0.05) and- t-count < t-table (3.222 < 2.08). It means that the Government Expenditure variable has a real (significant) effect on the Economic Growth variable in Indonesia, as tested at a confidence level of 95% (= 5%).

4. Testing Regression Coefficients Simultaneously (F Statistical Test)

F test is used to prove the R-square value above.
The hypothesis is as follows:

$H_0 : \beta 1 = \beta 2 = 0$

$Ha: \beta 1 \neq \beta 2 \neq 0$

That is, based on available data, testing will be carried out with β1 and β2 together. It does not significantly affect the dependent variable if it equals zero. It significantly affects the dependent variable if it is not the same as zero.

Table 4.
Anova test

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.725	2	4.363	5.246	.014[b]
	Residual	17.466	21	.832		
	Total	26.191	23			

a. Dependent Variable: Y
b. Predictors: (Constant), Gov Expenditure, Tax

Source: Data Processing Results, 2024

The table above shows that the F-count value is 5.246, and the probability value (significance) is 0.014. Thus, Ha is accepted because the probability value (significance) is greater than the value 0.05 (0.014 < 0.05). It means that X1 (Tax) and X2 (Government Expenditure) have a significant effect on economic growth (Y) at a 95 % confidence level (= 5 %).

5. Coefficient of Determination (R2)

Table 5.
DETERMINATION COEFFICIENT

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.958[a]	.918	.911	56331.71192

Source: Data Processing Results, 2024

Based on the results of the SPSS program output, it can be seen that the R-Square value is 0.918, which means that the X1 (Tax) and X2 (Government Expenditure) together can explain economic growth in Indonesia by 91,8%. In comparison, the remaining 8,2% are explained by new variables not included in the model estimation.

6. Moderating Test Results (Residual Test)

The residual test is carried out to see whether the moderating variable can strengthen or weaken the influence of the independent variable on the dependent variable. The Investment residual test (Z) results are shown in Tables 6 and 7 below.

Table 6.
Residual Test
Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	-30834.463	25567.358		-1.206	.241
	Tax	-.305	.071	-1.060	-4.277	.000
	Gov Expenditure	.398	.051	1.946	7.855	.000

a. Dependent Variable: Investment
Source: Data Processing Results, 2024

Table 7.
Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	64946.240	27670.829		2.347	.028
	GDP	-3958.906	5444.143	-.153	-.727	.475

a. Dependent Variable: ABRES
Source: Data Processing Results, 2024

Based on the residual test results in Tables 6 and 7, the moderated regression equation forms are as follows:
Z = -30834.463 – .305 X1 + .398 X2 .... 1)
| e | = 64946.240 – 3958.906 Y ....2)

A variable is said to be moderating if the P-value (Sig) <0.05 and the parameter coefficient value is negative. Based on Table 7, the residual test results show that the significant value of 0.475 is greater than α = 0.05 (0.475 > α = 0.05). The coefficient value is negative (-3958.906), so investment cannot moderate the relationship between the Tax and Government Expenditures on Economic Growth. In other words, the investment variable is not a moderating variable in this research (H4 cannot be accepted).

5. DISCUSSION OF RESEARCH RESULTS

5.1 The Effect of Taxes on Economic Growth

The research results show that the Tax variable positively affects Economic Growth. This research results align with the research hypothesis, which states that the Tax variable influences Economic Growth. In order to increase tax revenues, the government must also have a big role or contribution aimed at exploring and achieving existing tax potentials, especially in the business sector, because there are still many entrepreneurs or business people who are not yet taxpayers. Therefore, more effort is needed. The government should improve the taxation system in Indonesia and be more firm in implementing or giving sanctions and fines to taxpayers who are lazy in paying their obligations so that the goal of increasing national tax revenues can be achieved to increase economic growth (Sumaryani, 2019).

5.2 The Effect of Government Expenditures on Economic Growth

The research results showed that the Government Expenditure variable partially had a positive and significant effect on Economic Growth. This research results align with the research hypothesis, which states that government expenditure affects economic growth. Government expenditure is part of fiscal policy, namely a government action to regulate the running of the economy by determining the amount of government revenue and expenditure each year, which is reflected in the State Revenue and Expenditure Budget (APBN) documents for National and Regional Revenue and Expenditure Budget (APBD) for regions or regional. This fiscal policy aims to stabilize prices, output levels, and employment opportunities and spur or encourage economic growth (Anitasari, 2014).

5.3 The Effect of Taxes and Government Expenditures on Economic Growth with Investment as a Moderating Variable

The research results show that investment cannot moderate the influence of tax and government expenditure variables on economic growth. The results of this research are not in line with the research hypothesis, which states that investment can moderate the influence of tax and government expenditure variables on economic growth. This is because PMDN is not the only factor that plays a big role in increasing economic growth in Indonesia. The use of PMDN for development is often not well-targeted, so it cannot increase economic growth. It indicates that there is still a lack of confidence among domestic investors to invest their capital, according to Astuti (2018).

6. CONCLUSION

Based on the results of research regarding the influence of Taxes and Government Expenditures on Economic Growth in Indonesia, the following conclusions can be drawn: From the results of the F test, it is concluded that Taxes and Government Expenditures during the period 2000 to 2023 have a significant simultaneous effect on Economic Growth in Indonesia at the level of significance 5%. Thus, the research hypothesis is accepted. Based on the partial test (t-test), the Tax and Government Expenditure variables have a significant partial effect on the Economic Growth variable in Indonesia with testing at a confidence level of 95% (= 5%). The Investment variable cannot moderate the relationship between Taxes and Government Expenditures on Economic Growth in Indonesia. The coefficient of determination (R) value is 0.898, meaning that the variables X1 (Tax) are not included in the model estimation.

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