Does Foreign Direct Investment Reduce Growth Government Debt?

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ABSTRACT

The problem of fiscal deficits in the Indonesian economy has prompted the government to increase debt as a solution to reduce the deficit. Debt withdrawal in the long term without the support of an increase in state revenues has had a negative impact. Government debt increased sharply. Efforts to increase state revenue through tax collection in post-Covid 19 economic conditions that have not yet recovered will only reduce economic activity. This requires efforts to suppress government debt growth amidst a fiscal deficit. This study aims to analyze the effect of foreign direct investment, inflation and the exchange rate on government debt. Foreign direct investment is believed to be a source of financing that cannot be made through state revenue. Especially public infrastructure financing. The study concluded that it was found: foreign direct investment, inflation, and the exchange rate had a significant effect on government debt. Thus, government efforts are needed to encourage the growth of foreign direct investment, through policies that are oriented towards increasing foreign direct investment.

Keyword: Inflation, Foreign investment, Exchange rates, and Government debt.

INTRODUCTION

The Covid-19 pandemic has had a negative impact on the national economy which is marked by a decline in economic growth. This condition is expected to continue in the coming years. Under these conditions, a fiscal policy is needed that is able to respond quickly to financing needs in the short term. This need is not only an effort to recover the economy, but also related to fiscal stabilization, (Zulkarnain. at all., 2019). The role of fiscal policy is to adjust to changes in the economy, so as to be able to support the national economic development target. The research by Hazmi, et., al (2019), the problem with the current state budget also stems from assumptions about macroeconomic changes that are difficult to predict. APBN plays a role as a fiscal instrument in the economy. A number of studies state that government spending has a positive and significant effect on increasing per capita real GDP. Yadirichukwu (2012) stated that high government spending supports economic stability. Government spending has a positive and significant effect on increasing GDP. Research on fiscal deficits and government debt was also conducted by Belhocine and Dell'Erba (2013). The results of the study stated that the increase in long-term debt was at a limited level. according to Zubaidi et al (2017). Kuncoro (2011) mentions debt as an instrument for dealing with a deficit, for this a maximum debt limit is required. This study is in line with research by Cuddington et al (1989) which stated that if there is an increase in debt accompanied by volatility in interest rates, it will result in difficulties in conducting fiscal financing. However,

according to Icaza (2018), an increase in debt in the process of fiscal consolidation in the long term does not always lead to a reduction in the debt-to-GDP ratio. The deficit will adjust after the debt reaches a certain limit. In conditions of deteriorating fiscal deficits, to maintain the momentum of economic growth in the midst of growing government debt, fiscal policy is needed which is directed at reducing debt. This form is carried out through increasing foreign direct investment, which contributes to increasing state revenues from non-APBN sources. Foreign direct investment in the long term plays a role in increasing tax revenues and reducing debt through economic growth. Foreign direct investment as a financing instrument originating from abroad, plays an active role in meeting the needs of public infrastructure in order to accelerate economic growth. This is in line with Keynesian theory which states that there is a relationship between public investment and fiscal deficits. To reduce the deficit can be done by increasing taxes or attracting public investment, so as to expand the economy. Research states that foreign direct investment has an impact on economic growth. Increased public investment in the long term is believed to have an impact on reducing debt growth, through increasing tax revenues. Korstjens & Morser's study (2017) examines the relationship between public investment and debt.

According to Keynes, the fiscal deficit is the result of government policies related to balance. Government expenditure needs to be balanced with increased state revenues and the level of deficit. This is an effort to maintain a balance of receipts and expenses. Excessive spending without the support of adequate revenue will cause inflation to increase, excessive tax imposition and reduce government savings. Keynesian theory reveals that there is a relationship between public investment and debt. This theory anticipates the effect of potential public spending and investment on fiscal deficits. Although excessive public spending resulted in increased debt. But increased public spending is necessary to expand the economy and increase people's incomes. According to Nicoloski & Nedanovski (2018) by increasing taxes or increasing investment can develop the economy, causing economic deregulation such as inflation. Debt problems are closely related to inflation, exchange rates and interest rates which are macroeconomic variables that influence the level of fiscal deficit. Reinhart and Rogoff (2009) mention, there is tolerance for changes in past debt as the effect of changes in exchange rates, economic growth rates, inflation, interest rates, and the primary fiscal balance. This is a variable that affects changes in the ratio of debt to GDP. The current debt level is the accumulation of past debt, plus interest, the primary balance deficit, economic growth and inflation. Total debt has both domestic and foreign components. Debt in foreign currency, interest rates, and exchange rate depreciation. Government policies are aimed at avoiding conditions that trigger an economic crisis. One of the important policies is implementing fiscal policy in a sustainable manner, regulating interest rates and economic growth. The instability of the rupiah exchange rate against foreign currencies can also cause government debt to increase. The growth of debt through the exchange rate channel shows the comparison of the value of one currency to another which is determined by the purchasing power of that money. If there is an appreciation/depreciation, it will have an impact on the amount of debt. Debt is closely related to exchange rates and inflation. So far, the government has tended to use foreign debt rather than domestic debt to reduce the deficit. The depreciation of the rupiah against foreign currencies (US dollars) caused the government's external debt to increase. An increase in debt has bad consequences in a negative primary balance condition. This reflects the low fiscal ability to pay debts that are due. Alan & Yuriy (2017) the global financial crisis has prompted a number of developed countries to commit violence against interest rates and public debt levels. High debt levels put the fiscal stimulus program under threat. A number of

studies state that inflation and interest rates have a positive effect on increasing the fiscal deficit. Inflation and interest rates are closely related to fiscal policy (Luiza, 2018). Cambell and Simon (2013) stated that the decline in interest rates and government spending in the early period relatively affected the movement of lowering tax rates, pushing up output and inflation. Budina and Wijnbergen, (2009) stated that stabilization of government debt is needed to reduce the primary balance deficit. restore economic growth rates, interest rates, and inflation targets. At first glance (2014) in a deficit condition, definite and sustainable planning is needed by considering macroeconomic variables as variables that affect economic growth.

Literature Review
Government Debt

The Keynesian understanding states that increased expenditure originating from foreign debt has a positive effect on economic growth. The increase in debt has an impact on aggregate demand which comes from capital accumulation. Keynesian understanding states that foreign debt to finance fiscal deficits has a negative effect on economic growth. Reducing spending sourced from debt, will reduce consumption in the future. As a result the government imposes higher taxes. In this condition, it is important to consider the maximum level of the ratio of government debt related to the fiscal deficit (Vasconcelos, 2021). The Maastricht Agreement stipulates conditions for maintaining low levels of debt and deficits, and the importance of fiscal discipline as collateral to ensure fiscal sustainability. The next step is towards compliance with fiscal discipline (Mazzanti et al., 2020). A number of capital explains the relationship between economic growth and foreign debt. Government debt has a negative relationship to GDP growth. Debt withdrawals to finance deficits in the long run will potentially create excessive debt accumulation and fiscal risk. Risk as a result of the inability to pay back debts that are due. This requires setting the maximum debt amount.

Foreign Direct Investment

Investment as an important factor, besides technology, investment is closely related to economic growth (Ilzetzki, et al 2010). From the results of their research, investment has a positive and significant influence on economic growth. Increased investment resulted in economic growth. Investment also has a relationship to economic growth through infrastructure improvements. Infrastructure can increase production, expand employment opportunities, and increase income. Foreign investment has a negative effect on economic growth. The increase in investment does not affect the increase in national income. Public investment is a fundamental component of the fiscal deficit. the government can regulate public investment to minimize the consequences of losses and inflation. Encouraging economic growth can be done through increasing public investment which has the effect of increasing labor in the economy (Keho, 2016). The government increases spending focusing on competitive sectors of the economy, and increasing employment. When the workforce, will be followed by an increase in income and economic ranking (Boeri, 2019). The government controls public spending trends and microeconomic strategies. This is because spending can affect the deficit, which triggers an increase in taxes (Okafor et al., 2017).

Iflation

Studies conducted by Castro, et al (2003) relate to the relationship between fiscal and monetary policies in explaining price levels. This study explains that in the Ricardian Regime,

it was the fiscal authority that covered all government debt, and government debt only had a small effect on the price level. The study of Dornbusch et al (1989) as a fiscal policy policy against inflation is carried out through the link between fiscal and monetary policies. Within the macroeconomic framework, monetary policy and fiscal policy will affect inflation through changes in demand and aggregate supply. If the government can intervene in monetary policy, there is a possibility that it will use this power to support the policies taken. To finance a deficit, for example, the government will ask the central bank to keep interest rates at a lower level so that the interest costs that must be paid by the government are low. Likewise, if there is a conflict, the government will force the central bank to support its policies (Sargent & Wallace, 1981). The problem of debt is closely related to inflation, exchange rates and interest rates which are macroeconomic variables that influence the level of fiscal deficit. Reinhart and Rogoff (2011) there is tolerance for changes in past debt as an effect of changes in exchange rates, growth rates, inflation, interest rates, and primary fiscal balances. The current debt level is the accumulation of past debt, plus interest, the primary balance deficit, economic growth and inflation, (Syahrini et al. 2021). Total debt has both domestic and foreign components. Debt in foreign currency, interest rates, and exchange rate depreciation.

Exchange Rates

The exchange rate is the value between two different currencies, so you will get a value/price comparison between the two currencies. There are several factors that influence a country's exchange rate, including: inflation, income, interest rates, money supply (M2) and balance of payments. Castro and Francisco (2003) Monetary policy can affect the economy, through the following channels: exchange rates, interest rates, set prices and bank credit. Exchange rate movements have the greatest influence on the economy. When international interest rates are set, it will encourage funds from abroad to flow in. So that the exchange rate tends to increase (appreciate), exports will decrease and conversely imports will increase. Krugman and Obstfeld (1994) stated that changes in old values can be divided into two, namely depreciation and appreciation. If other conditions persist (ceteris paribus), then the depreciation of a country's currency makes the price of that country's goods cheaper for foreigners while the price of foreign goods becomes more expensive for foreigners. And conversely, the appreciation of a country's currency causes the price of that country's goods to become expensive for foreigners while the price of foreign goods becomes cheaper for domestic parties.

RESEARCH METHODS
Data Analysis Techniques

This study uses multiple linear analysis with Ordinary Least Square (OLS) equations. Furthermore, hypothesis testing and classical assumption tests were carried out. While the classical assumption test aims to test whether the data used is open and unbiased linear data (BLUE Estimation) or unbiased and unbiased linear data. The multiple regression estimation model in this study is:

$$GD = \alpha + bFDI + bInf + bER + e$$

Where :
GD = Government debt
α = Constant

b   = Regression Coefficient
FDI   = Foreign Direct Investment
Inf   = Inflation
ER   = exchange rate
e   = Error Term

Method of Analysis

Classic Assumption Test

The classical assumption test that was carried out consisted of: normality test, multicollinearity test, and heteroscedasticity test. In linear regression analysis the data used must be normally distributed. Usually it can be detected through the normal Profitability Plot chart. If the data follows the histogram, then the regression model meets the normality assumption. The multicollinearity test aims to test whether there is a relationship between the independent variables. This tester is seen from the tolerance value and the variance inflation factor (VIF) value. The requirement for multicollinearity testing is that if the tolerance value is ≥ 0.10 and the VIF value is ≤ 10, multicollinearity will not be obtained between the independent variables. The heteroscedasticity test can be detected by looking at the scatter plot graph. If there is no clear pattern, and the points spread above and below the number 0 on the Y axis, then there is no heteroscedasticity.

Determination Coefficient Test (R^2)

The R^2 test is to determine the proportion of the variation in the dependent variable determined by the regression model, or to measure the contribution of the independent variables to the diversity of the dependent variable. The value of the termination coefficient is between zero and one. The small value of R^2 means that the ability of the independent variables to explain the variation in the dependent variable is very limited. A value close to 1 (one) means that the independent variables provide almost all the information needed to predict the variation of the dependent variable.

Simultaneous Test with F-test

This test is intended to determine whether the independent variables have a joint effect on the dependent variable with the degree of confidence used is 0.005. If the calculated F value is greater than the table F value, then the alternative hypothesis states that all independent variables simultaneously have a significant effect on the dependent variable. The hypothesis as follows:

If $F_{count} \leqslant F_{table}$: means that H_0 is accepted and H_a is rejected

If $F_{count} \geqslant F_{table}$: means H_0 is rejected and H_a is accepted.

Partial Test with F-test

The test is intended to determine the significant effect of the independent variables individually on the dependent variable. If the probability value is t or significant <0.005, it means that there is influence between the independent variables on the dependent variable. However, if the probability value is t or significant > 0.05, it means that there is no significant effect of the individual independent variables on the dependent variable. The criteria for this test are:

If the significant level t is 0.05 or tcount > ttable then H_0 is rejected
If the significant level t is 0.05 or tcount <ttable then H_0 is accepted

RESEARCH RESULTS AND DISCUSSION
Partial Test Results (T Test)

The t test was conducted to determine whether all the exogenous variables in the model individually affect the endogenous variables. For this, a t-test was carried out. In other words, the test is intended to determine whether all independent variables partially affect the dependent variable. The results of the t test are as in Table 1.

Table 1. Partial Test Results (T Test)

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,458	1,441		1,012	0,314
	FDI	1,18	0,034	0,951	34,345	0
	Inf	0,098	0,046	0,059	2,111	0,037
	ER	0,219	0,081	0,074	2,689	0,008

a. Dependent Variable: Utang Pemerintah

Source: Data processed in 2023

Based on the results of the t test as shown in table 1, to test the first hypothesis (H_1) the effect of foreign direct investment on government debt is 0.000 <0.05 and the calculated t value is 34.345 > t table 1.98472, and accept H_1. Testing the second hypothesis (H_2), the effect of inflation on government debt is 0.037 <0.05 and the t count is 2.111 > t table 1.98472, also accepts H_2. Then testing the third hypothesis (H_3), the effect of the exchange rate on government debt is 0.008 <0.05 and the tcount is 2.689 > ttable 1.98472, and accepts H_3.

Simultaneous Test Results (Test F)
Simultaneous Test Results (F Test) as shown in table 2 below:

Table 2. F-test Results

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	673,851	3	224,617	417,98	,000[b]
	Residual	51,589	96	0,537		
	Total	725,44	99			

a. Dependent Variable: GD
b. Predictors: (Constant), ER, FDI, Inf

Source: Data processed in 2023.

Based on the output data as contained in table 2, the significance value of the effect of the independent variable on the dependent variable is 0.000 <0.05 and the Fcount value is 417.980 > Ftable 2.70. This means accepting H4, which means that the independent variables simultaneously have a significant effect on the dependent variable.

Classic assumption test

The classical assumption test was performed before carrying out multiple linear regression analysis. The prerequisites used in this study include the normality test, linearity test, multicollinearity test and heteroscedasticity test. The results of this test are as follows: Normality testing uses the Kolmogorov-Smirnov analysis technique. The data is said to be normally distributed if the significance value is greater than the significance level ($\alpha = 0.05$). The normality test results for each research variable are presented in table 3.

Table 3. Normality Test *Kolmogorov-Smirnov*

One-Sample Kolmogorov-Smirnov Test		Unstandardized Residual
N		100
Normal Parameters[a,b]	Mean	0
	Std. Deviation	0,72187432
Most Extreme Differences	Absolute	0,232
	Positive	0,211
	Negative	-0,232
Test Statistic		0,232
Asymp. Sig. (2-tailed)		,000[c]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.

Source: Data processed in 2023.

Based on the results of the normality test above, it is known that the significance value is 0.232 > 0.05. It can add normally distributed residual values. Besides that, it is also done using the Normal P-Plot Regeresion Standardized Residual, and Histogram graphs. As in figure 1.
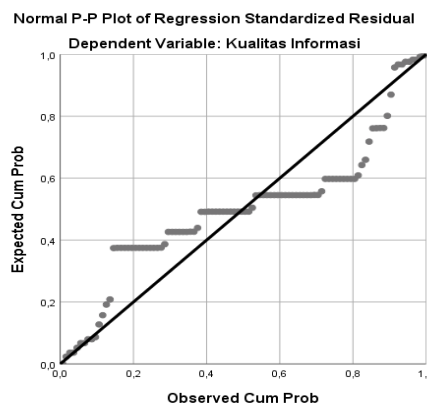
Source: data processed in 2023

Figure 1. P-Plot Curve Normality Test

Based on Figure 1, the residual data shows a normal curve. This can be seen from the dots that spread around the normal line and follow the direction of the diagonal line. Thus the normality requirement for the residual value for the regression analysis in the model is fulfilled.
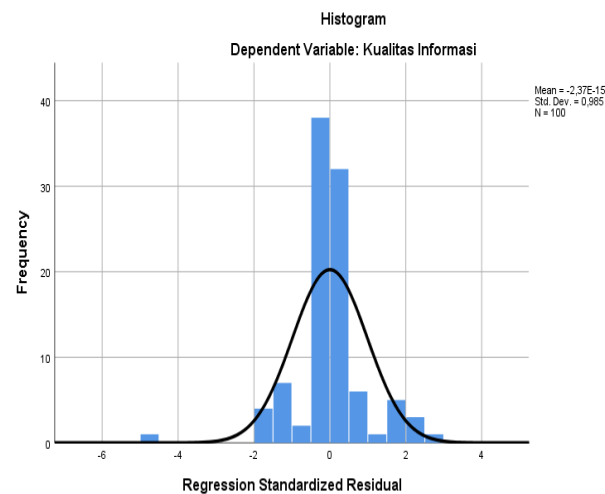

Figure 2. Histogram Graph

Based on the results of the normality test shown by the histogram graph as shown in Figure 2. The histogram is in the form of a bell from zero, the curve does not deviate to the left or deviate to the right (left and right sides are the same width), so the histogram graph in the research model is normal.

Multicollinearity Test

The results of the multicollinearity test can be seen from the output coefficient table in the colliniarity Statistics section in Table 4.

Table 4. Uji Multikolinearitas

| Coefficients^a							
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1,458	1,441		1,012	0,314		
	FDI	1,18	0,034	0,951	34,345	0	0,966	1,035
	Inf	0,098	0,046	0,059	2,111	0,037	0,956	1,046
	ER	0,219	0,081	0,074	2,689	0,008	0,985	1,015
a. Dependent Variable: GD								

Source: Data processed in 2023.

From the output coefficient, the Tolerance value for each exogenous variable is > 0.10, while the VIF value for each exogenous variable is < 10.00. From the multicollinearity test it can be concluded that there is no multicollinearity in the regression model.

Heteroscedasticity test

To predict heteroscedasticity, it can be seen from the scatter plot image pattern. The results of the heteroscedasticity test in this study can be seen in Figure 3.
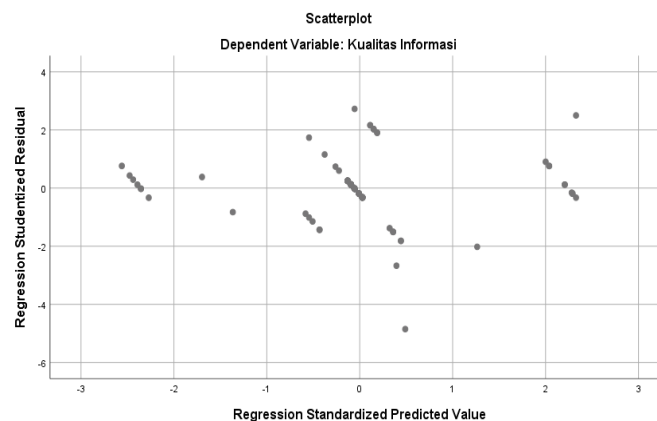
Source: Data processed in 2023

Figure 3. Heteroscedasticity Test

CONCLUSION

In a number of previous studies, foreign direct investment has an impact on the economy, especially through the path of job creation and output growth. However, the role of foreign investment tends to reduce the role of domestic investment. Even though the entry of foreign investment can encourage the economy in a country to grow faster. Foreign direct investment as a form of investment that plays an important role in increasing welfare in the receiving country, as a visible function of actual changes, modern technology, technology management, skills improvement, financing to handle jobs, and increased income of the receiving country. industrial sector. In terms of state financing, foreign investment is believed to have a direct impact on reducing government debt growth, both in the short and long term. In the short term foreign investment contributes to financing public infrastructure which cannot be financed through the State Revenue and Expenditure Budget (APBN). Meanwhile, in the long term, direct foreign investment can encourage economic growth through job creation and increased income. For this reason, policies aimed at increasing foreign direct investment are needed, especially in suppressing the growth rate of government debt amid a worsening fiscal deficit. The test results show that foreign direct investment, inflation and the exchange rate have a significant effect on government debt.

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