Determinants of Private Investment In Indonesia: An Error Correction Model Approach

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Abstract. The objective of this study is to examine the impact of independent variables on dependent variables over both the short and long term. The study examines interest rates, government spending, and risk as independent variables, with investment as the dependent variable. The analysis utilized time series data from 1996 to 2020 in Indonesia and using multiple regression models and an Error Correction Model (ECM). The findings indicated a strong favorable impact of both interest rates and government spending on investment. Conversely, risk factors have a considerable negative effect on investment in Indonesia both in the short and long run. The study examines the impact of interest rates on investment using Bank Indonesia's interest rate data, which differs from the interest rates offered by commercial or private banks in Indonesia. The variable of government expenditure has a positive impact on investment, suggesting that government intervention is causing a crowding effect on investment. This means that investments in infrastructure improvements, health services, and education are increasing activities in the capital market. Ultimately, the risk factor has a detrimental impact on investment due to its perceived negative nature. an uncertainty variable that can suppress the amount of investment in Indonesia.

Keywords: Investment, Interest Rate, Government Spending, Risk

1 Introduction

Investment is considered very crucial in increasing national economic growth. Investment is an investment activity by investors who are then referred to as investors to achieve profits in the future. Based on its form, investment is divided into two, namely investment in the real sector and the financial or financial sector. Real sector investment is an investment of a certain amount of capital carried out in building property, buildings, land, gold, or that can be seen physically, while investment in the financial sector is an investment used in buying financial instruments such as stocks and bonds.

Due to prevailing circumstances, investors get acquainted with a market referred to as the capital market. The capital market is a marketplace designed for the trading of many types of long-term financial products, including debt, equity (shares), derivative

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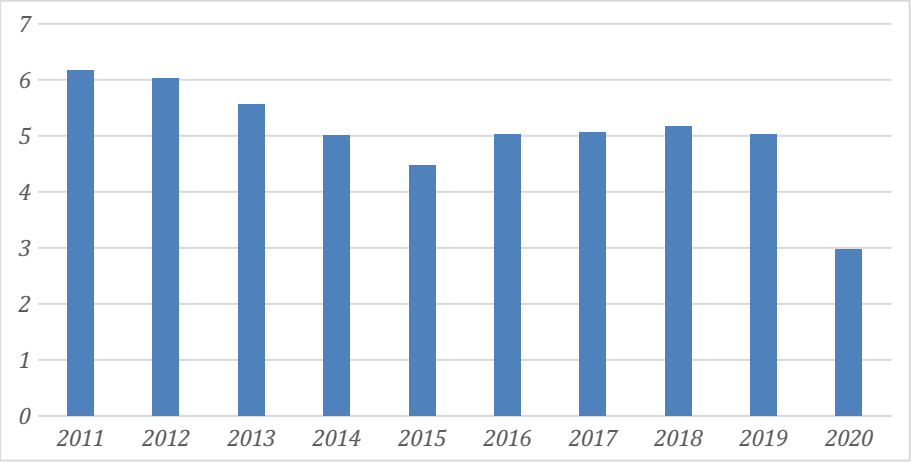
instruments, and other securities. According to the explanation, the capital market provides funds for corporations, government, and other entities to carry out investment operations [1]. Investment activities offer companies the chance to secure substantial capital for the purpose of expanding their operations, thereby leading to an increase in employment opportunities for the community. Consequently, investment contributes to the overall prosperity of the community and the development of the national economy.

Economic development is an essential element of a country's overall economic progress. Economic growth is a key sign of successful implementation of development and can serve as a macro benchmark. Economic growth refers to the state of higher income resulting from an expansion in the production of products and services. The rationale behind this surge in revenue can be evaluated based on the increase in production, advancements in technology, and innovations in the social sector. Presented here is Figure 1.1, illustrating the annual rate of economic growth in Indonesian cities spanning the years 2011 to 2020.

Figure 1. Economic Growth Rate in Indonesia in 2011-2020



Source. Central Bureau of Statistics, various years of publication, after processing.

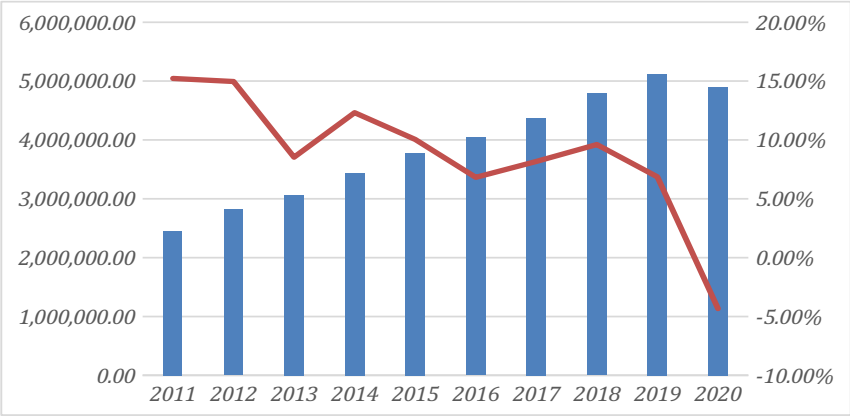
In Figure 1 there is the rate of economic growth in Indonesia which is depicted in percent. Economic growth in Indonesia in the last 10 years has been very volatile.

The economic growth rate in Indonesia experienced a downward trend in 2011-2015, but the rate rose again in 2016-2019, and in 2020 fell back and reached the lowest point at 2.97%. Apart from the Covid-19 virus pandemic that occurred in 2020 yesterday which hampered the activities and wheels of the Indonesian economy, the declining rate of economic growth in Indonesia was also influenced by several other factors, including investment.

Investment activities facilitate the continual growth of economic activities, employment, and job opportunities in a society. They also contribute to the increase in national income and the overall prosperity of the community. The study's investment is measured by Gross Fixed Capital Formation (PMTB). Gross Fixed Capital Formation (PMTB), as defined by the Central Statistics Agency (BPS), refers to the spending on durable capital items that have a lifespan of more than one year,

excluding consumer products. PMTB encompasses both structures designed for human habitation, such as houses and residences, as well as non-residential structures like highways, airports, and machines. The graph presented in Figure 1.2 illustrates the actual income and growth of Gross Fixed Capital Formation (PMTB) in Indonesia from 2011 to 2020.

Figure 2. Number and Growth of Gross Fixed Capital Formation (PMTB) in Indonesia in 2011-2020



Source: Central Bureau of Statistics, various years of publication after processing

It can be seen in Figure 2 that the amount of realized revenue from Indonesian investment through Gross Fixed Capital Formation (PMTB) from year to year has an increasing trend, but in 2020 there was a decrease in the total amount of Gross Fixed Capital Formation (PMTB) in Indonesia. In 2011 the total amount of PMTB was only Rp. 2,451,913.9 billion then almost doubled in 2019, where the total amount of PMTB reached Rp.5,119,490.6 billion, but in 2020 it decreased only to Rp. 4,897 785.7. The decrease in the amount of Gross Fixed Capital Formation (PMTB) in 2020 amounted to Rp. 221,704.9 billion from the previous year.

The growth of Gross Fixed Capital Formation (PMTB) is also shown in Figure 1.2. Although the amount of investment nominally increases, the growth does not necessarily increase; it can even decrease. It is seen in Figure 2 that investment growth in Indonesia, as measured through Gross Fixed Capital Formation (PMTB) growth data, is very volatile and tends to experience a decrease in growth; even in 2020, there was a decrease in total PMTB growth of -4.33%. PMTB grouping is divided into 6 (six) groups, namely: Buildings, Machinery and Equipment, Vehicles, Other Equipment, Cultivated Biological Resources (CBR), and Intellectual Property Products.

Investment plays a crucial role in fostering economic growth in Indonesia. The objective of the investment is outlined in Law Number 25 of 2007 Article 3 paragraph (2), which specifies that the investment aims to enhance national economic growth, generate employment opportunities, promote sustainable economic development,

enhance national business competitiveness globally, boost national technological capacity and capability, and stimulate community economic development.

There are several factors that affect the high and low investment in Indonesia. First is the interest rate. According to Samuel Richard Messakh et al in their research said that interest rates negatively affect investment, where when interest rates are high it is very unlikely for investors to invest, and when interest rates are low investors are competing to invest their investments [2].

Government spending is the second element that influences investment. John Maynard Keynes claimed that implementing fiscal expansion via heightened government expenditure would result in enhanced infrastructure, health, and education due to a subsequent increase in private investment. The reason is due to financial costs.

The government can reduce production costs and consequently increase private investment. [3].

Finally, is the risk factor. When talking about investment, risk is uncertainty that causes non-achievement of financial goals, in this case investment objectives. For investors in the capital market, risk is considered as the spread of actual returns from expected returns or the probability of an outcome being different from the expected outcome. Here, there is an element of uncertainty in the realization of future results. There is an event that is the cause.

Based on the description above, the author is interested to see how the development of investment and what factors influence it in Indonesia are viewed macroeconomically so that the title of this study is "Analysis of Factors Affecting Investment in Indonesia".

2 Research methodology

The scope of this study covers investment in Indonesia and the factors that influence it, in this case, interest rates, government expenditure and financial stability risks.

This study employed pre-existing data. Husein Umar defines secondary data as primary data that has undergone additional processing and presentation by the original data collector or other entities, such as data collection bodies or organisations. This processed data is typically provided in the form of tables or diagrams [4]. In addition, Sugiyono defines secondary data as information that is obtained indirectly by data collectors, such as through other individuals or documents [5]. The study utilises quantitative secondary data of time series nature spanning the period from 1996 to 2020, encompassing a span of 25 years. Research data sources can be categorised into two distinct types: primary data sources and secondary data sources [5]. The study utilises secondary data as its data source. The data in this study was acquired from the Central Bureau of Statistics (BPS), the Indonesian Economic Report provided by Bank Indonesia, and the Asia Regional Integration Centre.

In order to gather the necessary data for this study, the author used a data gathering method known as a literature review. A literature study is a method of gathering data by examining and analysing relevant sources such as notes, literature, and documents. Documentation procedures involve tracing and recording material that is pertinent to the subject of study.

3. Data Analysis Methods

To analyze and prove the influence between, inflation, interest rates, government expenditure, and risks to investment in Indonesia, the data analysis models used in this study are Error Correction Model (ECM) and Multiple Linear Regression with the Ordinary Least Square method.

In this study, the dependent variable is investment realization in Indonesia while the independent variable is interest rate, government expenditure, and risk. The ECM model used in this study is known as the two-step model introduced by Engle Granger. According to him, if there are stationary X and Y variables at the level of first difference but are cointegrated, then the relationship between the two can be explained by the ECM model. So that the equation can be written into:

$$\Delta Y_t = \alpha_0 + \alpha_1 \Delta X_{1t} + \alpha_2 \Delta X_{2t} + \alpha_3 \Delta X_{3t} + ECT \quad (3.1)$$

Where:

$$ECT = (Y_{t-1} - \beta_0 - \beta_1 X_{1t-1} - \beta_2 X_{2t-1} - \beta_3 X_{3t-1}) \quad (3.2)$$

Where:

ΔY= Change in Investment in Indonesia
ΔX1 = Change in Interest Rate (BI Rate) in Indonesia
ΔX2 = Change in Government Expenditure in Indonesia
ΔX3 = Risk Change in Indonesia
X1t-1 = Interest Rate (BI Rate) of the previous period

X2t-1= Government Expenditure for the previous period
X3t-1 = Risk in Indonesia previous period
α0,α1,α2,α3 = Short-term regression coefficient
β1, β2, β3 = Long-Term Regression Coefficient
ECT = Error Correction Term

But before regressing using the ECM method, the author conducted a stationary test first, as a stage in carrying out the ECM method. Stationary tests consist of unit root tests and cointegration tests.

In the unit root test, in each model, if the time series data contains a root unit which means the data is not stationary the null hypothesis is φ = 0. While the alternative hypothesis is φ < 0 which means stationary data. If all variables pass the unit root test, then the next step in ECM estimation is a cointegration test to test whether the resulting regression residual is stationary or not. The purpose of the cointegration test is to detect a long-term relationship between the independent variable and the dependent variable [6].

An alternative cointegration test that is now widely used is the cointegration test developed by Johansen. The Johansen cointegration test can be calculated from trace statistics. If Trace Statistics > Critical Value means there is cointegration and vice versa when Trace statistics < Critical Value means there is no cointegration.

As for the multiple linear regression equation this study is:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e_t \ldots\ldots\ldots\ldots\ldots\ldots \quad (3.13)$$

Then the above equation model can be transformed into a natural semi-logarithmic form as follows:

$$LnY = \beta_0 + \beta_1 X_1 + \beta_2 \ln X_2 + \beta_3 X_3 + e_t \quad (3.14)$$

Where:
Y = Investment
X1 = Interest Rate (BI Rate)
X2 = Government Expenditure
X3 = Risk
β 0 = Constant
β1, β2, β3 = Regression Coefficient
et = Error Term
Ln = Natural Logarithm

Before testing the regression analysis, it is necessary to test the classical assumptions of the data to be processed. The classical assumption test in this study was carried out to achieve the assumption of BLUE (Best Linear Unbiased Estimation), which is a

Equation models that are free from violations of classical assumptions are carried out through normality tests, multicollinearity tests, heteroscedasticity tests, and autocorrelation tests.

3 Result

In this study, before estimating and regressing through the Error Correction Model method, researchers first conducted a unit root test using the Dickey-Fuller method

through the EViews software tool to test whether the data was stationary (did not have unit root problems) or not. Below are the unit root test results of the independent and dependent variables at the level level.

Tabel. ADF Unit Root Test Results of All Variables at Leve

Variable	ADF *Statistical Test*	Probability
Interest Rate (*BI Rate*) (X1)	-7.235639	0.0000
Government Expenditure (X2)	-0.344819	0.9027
Risk (X3)	-4.393042	0.0027
Investment (Y)	0.635800	0.9877
**Null Hypothesis: Variable has a unit root.*		

Source: Data Processed on EViews 12

Table 1 shows the unit root test results on all independent and dependent variables in the analysis model at the level level. The procedure to determine whether a data is stationary or not is to look at its probability value. If the probability is below 0.05 or 5% then the data is stationary (null hypothesis is rejected and has no unit root) and vice versa.

Using the Augmented Dickey Fuller (ADF) method, the results of the unit root test on the inflation variable (X1) at the level level can be seen in the table above. The interest rate (X1) at the level level is stationary. Government expenditure (X2) was tested using development expenditure data and found that the data was not stationary at either the level with a probability value of 0.9027 (above 0.05 or 5%). This indicates that the null hypothesis will be accepted, and that overall government spending has unit roots at the level level. Meanwhile, Risk variable data (X3) to test the root of the unit uses Financial Stress Index (ISK) or Financial Stress Index (FSI) data. In table 1 above, the unit root test at the level level using the ADF method found that the ADF statistical value was -4.393042 and the probability value was below 5% or 0.05, namely.

amounted to 0.0027. This indicates that the risk has data that is stationary at the level level. The last is the root test of investment variable units (Y) conducted using Gross Fixed Capital Formation (PMTB) data. It was found that the data was not stationary at the level level with a probability value of 0.9877 (above 0.05 or 5%) and a statistical ADF value of 0.635800. This indicates that the null hypothesis will be accepted, and the investment as a whole has a unit root (not stationary) at the level level.

Because the data on the independent and dependent variables in the study vary greatly, namely the presence of stationary and non-stationary data at the level level, then test the data through testing the degree of ADF integration at the first difference level. The results of the integration degree test can be seen in the table below.

Table.2 Test Results of the Degree of Integration of All Variables in First Difference Level

Variable	ADF *Statistical Test*	Probability
Interest Rate (BI Rate) (X1)	-11.79246	0.0000

Government Expenditure (X2)	-6.738812	0.0000
Risk (X3)	-3.480764	0.0213
Investment (Y)	-3.001902	0.0496

**Null Hypothesis: Variable has a unit root.*

Source: Data Processed on EViews 12

Table 2 shows the results of the integration degree test for all variables in the model at the first difference level using the ADF or Augmented Dickey Fuller method performed using EViews software. From the results of the degree of integration test above, all independent variables and dependent variables, namely interest rates, government spending, risk, and investment, have been stationary at the first difference level with probability values below 0.05 or 5%, namely 0.0000 each; 0.0000; 0.0213; and 0.0496 with a statistical ADF value of -11.79246 respectively; -6.738812; -3.480764; and -3.001902. This indicates that the null hypothesis is rejected, and the variable has no unit root. Thus, the overall variable at the first difference level is already stationary.

After that, a cointegration test was carried out using the method introduced by Johansen. The results of the Johansen cointegration test can be seen in table 3 below and the running results of EViews 12 software.

Table 3. Johansen Cointegration Test Results

Hyphotesized No. of CE(s)	Eigenvalue	Trace Statistics	Critical Value (5%)	Probability
None*	0.975836	136.5809	47.8561	0.000
At most 1*	0.807730	62.12284	29.7970	0.000
At Most 2*	0.634877	29.14574	15.4947	0.000
At Most 3	0.362223	8.995344	3.84146	0.003

Source: Data Processed on EViews 12

The procedure for determining a data is cointegrated or not by looking at the comparison value of trace statistical value with critical value. If the trace statistic value is greater than the critical value, there is a cointegration at the significance level of 0.05 or vice versa. It can be seen in the table above that in the model there are 4 cointegrations with the value of each Trace Statistic 136.5809; 62.12284; 29,14574; and 8.995344 is greater than the critical values of 47.85613; 29.79707; 15.49471 and 3.841466, respectively.

Meanwhile, before multiple linear regression is carried out, researchers first test classical assumptions to find out whether the data and models avoid the problem of classical assumptions and the existence of a regression model that reaches BLUE or Best Linear Unbiased Estimation. The classical assumption test in this study consists of normality, multicollinearity, autocorrelation, and heteroscedasticity tests.

The results of the Jarque-Bera normality test can be seen in the table below.

Table 4. Jarque-Fallow Normality Test

Jarque-Bera	Probability	Information
1.689885	0.429582	Usual

Source: Data Processed on EViews 12

In table 4. indicates a Jarque-fallow value which means the data is normally distributed.

Multicollinearity test in this study bylooking at the value of variance inflation factor (VIF). Guidelines for a free regression model

multicollinearity is having a VIF value below (<) 10. The results of the multicollinearity test in this study can be seen in table 4.6 below.

Table 5. Multicollinearity Test Results

Variable	Uncentered VIF	VIF
Interest Rate (*BI Rate*) (X1)	7.405718	7.377631
Government Expenditure (X2)	1.966033	1.573402
Risk (X3)	8.824735	8.821021

Source: Data processed on EViews 12

It is known that the data on all independent variables in the model do not show multicollinearity due to the VIF values for the three variables below (<) 10. This shows that between independent variables in the model does not show a strong correlation, so the predictive power in the model can be said to be reliable.

Table 6. Heterokedasticity Test Results

F Statistics	Obs*R-Square	Chi-Square Probability	Information
11.98164	22.77789	0.0640	Problem Free Heterokedasticity

Source: Data Processed on EViews 12

Table 6 shows heterokedasticity test results This indicates that the data are heterokedasticity problem-free.

The last classical assumption test is the autocorrelation test using the White method.

Table 7. Autocorrelation Test Results

F Statistics	Chi-Square Probability	Information
5.436562	0.0660	Trouble-Free Autocorrelation

Source: Data Processed on EViews 12

Table 7. Shows the results of autocorrelation tests in regression models performed, meaning that residuals (confounding errors) have been free from one observation to another.

The regression analysis tool with the Error Correction Model (ECM) method in this study was chosen because the ECM model is a dynamic analysis method that can be used to estimate the short-term relationship of two or more variables. The estimated results can be seen in table 8. below.

Table 8. Engle-Granger Error Correction Model (ECM) Estimation Results

Variable	Coefficient	Std. Error	T-Statistics	Prob.
C	0.016001	0.020059	0.797707	0.4349
Interest Rate (X1)	0.019997	0.007161	2.792549	0.0116
Government Expenditure (X2)	0.306120	0.141937	2.156721	0.0440
Risk (X3)	-0.050132	0.014609	-3.431559	0.0028
ECT	-0.284536	0.111876	-2.543321	0.0198
R-Squared	0.516190	F Statistics		5.067904
Adjusted R-Squared	0.414355	Prob. (F Statistics)		0.005964

Source: Data Processed on EViews 12

The regression equation in the short term in the Engle-Granger ECM model in the study is as follows:

$$\ln \Delta Y_t = 0.016001 + 0.019997 \Delta X_{1t} + 0.306120 \ln \Delta X_{2t} - 0.505132 \Delta X_{3t} - 0.2864536$$

The model suitability test indicates that the Engle-Granger ECM model's estimation results have a substantial ECT value (with a probability value less than the critical value for α=0.05), namely 0.0198. This suggests that the ECM model utilised is valid and acceptable. If interest rates, government spending, and risk are all at 0 percent, then the investment in Indonesia amounts to 0.016001 in the short run.

In the ECM model, the variable interest rate (X1) has a regression coefficient of 0.019997. This indicates that a one percent increase in the interest rate will result in a 0.019997 percent increase in investment in the short run. The variable government expenditure (X2) has a regression coefficient of 0.306120, indicating that a one percent rise in government spending leads to a 0.306120 percent increase in investment in the short term. The risk variable (X3) has a regression coefficient of -0.050132, indicating that a one-unit increase in risk will result in a 0.050132 percent decline in investment in the short run.

All independent variables in the estimation results of the error correction model have a significant influence on Indonesia's investment partially in 1996-2020 in the short term with t statistical variables X1, X2, and X3 each being 2.792549; 2,156721; and -3.431559 with each probability value below 0.05 which is 0.0116; 0.0440 and 0.0028. Similarly, the F statistic of 5.067904 with a probability below 0.05 of 0.005964 indicates that all independent variables together affect the dependent variable significantly in the short term.

It can be seen in table 9. above that the effect of interest rates (X1), Government Expenditure (X2), and Risk (X3) on investment (Y) in Indonesia for the period 1996-2020 obtained an Adjusted R 2 value on the results using the error correction method of 0.414335. This value indicates that variations in interest rates, government spending, and risk can explain simultaneously investment variables in the short term by 41.43% and the remaining 58.57% determined by other variables or factors outside the model.

The estimation results using multiple linear regression analysis using the help of EViews 12 software can be seen in the following table:

Table 9. Multiple Linear Regression Estimation Results

Variable	Coefficient	Std. Error	t Statistics	Probability
C	3.994002	1.391785	2.869698	0.0092
Interest Rate (X1)	0.067349	0.019699	3.418820	0.0026

Government Expenditure (X2)	0.895220	0.110419	8.107500	0.0000
Risk (X3)	-0.135627	0.041037	-3.304495	0.0034
R-Squared	0.832049		F Statistics	34.67890
Adjusted R-Squared	0.808056		Prob. (F Statistics)	0.000000

Source: Data Processed on EViews 12

The regression equation formed in this study is as follows:

$$LnY = 3.994004 + 0.067349\,X_1 + 0.895220 \ln X_2 - 0.135627\,X_3$$

Based on the regression equation above, it is known that the value of the regression coefficient is 3.994002 which means that if all independent variables in the model, namely interest rates (X1), Government Expenditure (X2), and Risk (X3) are 0 (zero), then the dependent variable in the model is investment (Y) of 3.994002 percent. Then, the regression coefficient of the interest rate variable (X1) is marked positive, which means that the interest rate has a positive (unidirectional) influence on investment in Indonesia. The X1 variable regression coefficient of 0.067349 means that if the interest rate increases by 1 percent, investment also increases by 0.067349 percent. Similarly, government expenditure (X2) that the regression coefficient is marked positive which means it has a positive influence (unidirectional) with investment (Y) with a value of 0.895220 which means that if government spending increases by 1 percent, investment will increase by 0.895220 percent. Furthermore, the last independent variable is risk (X3) with the regression coefficient value marked negative, which means risk and investment have a non-directional relationship. The risk variable regression coefficient value is 0.135627 which means that if there is an increase in risk (X3) by 1 unit, it will reduce the investment value by 0.135627 percent.

It can be seen in table 9. above that the effect of interest rates (X1), Government Expenditure (X2), and Risk (X3) on investment (Y) in Indonesia for the period 1996-2020 obtained an Adjusted R2 value of 0.808056. The R2 coefficient of determination test is carried out to determine how far the variation of the independent variable in this case consisting of interest rates, government spending, and risk can explain the dependent variable.

investment. This value indicates that variations in interest rates, government spending, and risk can explain simultaneously the investment variable of 80.80% and the remaining 19.2% is determined by other variables or factors outside the model.

4 Discussion

The findings of this study indicate that changing interest rates exert a substantial impact on investment, both in the long run and in the short run. However, the impact of interest rates on investment is unidirectional, meaning there is a positive relationship between the two variables, and it does not align with the initial expectation. hypothesis that interest rates should have a negative effect on investment in Indonesia.

The findings of this study align with the research conducted by Amida Tri Septifany, R. Rustam Hidayat, and Sri Sulasmiyati in their study titled "Analysis of the Effects of Inflation, Interest Rates, Rupiah Exchange Rate, and Foreign Exchange Reserves on Foreign Investment in Indonesia (Study at Bank Indonesia for the 2006-2014 Period)". The findings of this study diverge from the theoretical proposition that posits a negative correlation between interest rates and investment levels [7]. This discrepancy arises due to the lack of correlation between the interest rate fluctuations investigated in this study and the corresponding changes in lending rates implemented by commercial banks in Indonesia. Furthermore, there is a suspicion that the rate of return on capital obtained by investors is still higher or at least equivalent to the interest rate that investors are obligated to pay to banks. An increase in interest rates is expected to positively impact foreign direct investment (FDI) in Indonesia.

Moreover, the findings of this study indicate that government spending determinants exert a substantial impact on investment, both over an extended period and in the immediate term. The impact of government expenditure on investment in Indonesia is unidirectional, with a positive relationship. This aligns with the basic hypothesis that government spending has a positive effect on investment.

The findings of this study align with Keynesian theory and the Neoclassical perspective, which posit that an increase in government spending leads to a crowding-out effect on private investment. This implies that extensive government intervention stimulates new investment activities, prompting domestic entrepreneurs and investors to enter the market and engage in investment endeavours in response to the heightened government expenditure. This aligns with Kustepeli's research titled "Effectiveness of Fiscal Spending: Crowding out and/or crowding in?"[8]. The study was carried out in Turkey using the Johannen cointegration method, yielding contrasting perspectives on the effects of fiscal policies implemented by the Turkish government: Keynesian and Neoclassical ideas.

This study employed the Ordinary Least Square (OLS) approach to examine the long-term impact of risk, and the ECM Engle-Granger method to analyse the short-term effects. The findings from both methods consistently demonstrated that risk variables exerted a significant and negative influence on investment. The findings of this investigation demonstrate that the basic hypothesis is valid.

The findings of this study are consistent with the research conducted by Seruni Jiwo Wiranti titled "Political Risk Influence on Foreign Investment Decisions in East Java". The study investigates the correlation between political risk and foreign investment in East Java [9]. This research aims to examine the impact of its intervention on the influx of international investors in the region of East Java. The study's findings indicate that East Java necessitates careful consideration of political risk. Financial stability risk refers to the changeable and uncertain nature of potential outcomes that can impact investors' decision-making process. Financial stability risk assesses the efficiency and stability of exchange rates, shares, bonds, and banks in conducting their activities. More risk indicates greater instability and effectiveness of these four components.

5. Conclusion

Based on the results of data analysis and discussion, it can be concluded as follows:

1. 1. The interest rate (X1) has an impact on investment in Indonesia during the period from 1996 to 2020, both in the short term and the long term. Interest rates serve as a monetary instrument to regulate the circulation of money in an economy by influencing the supply and demand. If corporations or investors show a preference for borrowing funds in a given industry, the government will reduce the interest rate for that sector. Furthermore, the impact of the interest rate is minimal due to the limited fluctuations in the benchmark interest rate over the past year, which do not align with the corresponding changes in lending rates at commercial banks in Indonesia. As a result, this discrepancy creates uncertainty in the research findings and theories.
2. Government expenditure (X2) affects investment in Indonesia in the short and long term 1996-2020 period. It's means that government spending has a crowding in effect on investment, meaning that government intervention is large and generates new investment activities, where domestic entrepreneurs and investors enter the market and carry out investment activities due to increased government spending.
3. Risk (X3) negatively affects Investment in Indonesia in the short and long term 1996-2020. This happens because this risk is an uncertainty variable or uncertainty that can affect investors in making investment decisions. Financial stability risk looks at how much effectiveness and stability of exchange rates, equities, bonds, and banks in carrying out their operations, the higher the risk level means the less stable and effective the four components are.

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