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The Effect of Inflation, Foreign Direct Investment and Economic Freedom on Indonesia Economic Growth

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Abstract

This study aims to determine the effect of inflation, foreign direct investment and economic freedom in the short and long term on Indonesia economic growth in 1994-2023. This type of research is quantitative using the Autoregressive Distributed Lag (ARDL) method in the form of time series data with a research time span from 1994 to 2023. The research data is obtained from the official website of the World Bank and Heritage Foundation. The results showed that in the short term, the inflation variable has a significant positive effect on Indonesia economic growth. While in the long run, the inflation variable has a significant negative effect on Indonesia economic growth. Foreign direct investment variable in the short term has a significant negative effect on Indonesia economic growth. Meanwhile, in the long run, foreign direct investment has a significant positive effect on Indonesia economic growth at the 10% significance level. Economic freedom variable in the short term has a significant positive effect on Indonesia economic growth. While in the long run, the economic freedom variable has a significant negative effect on Indonesia economic growth.

Keywords: Inflation; Foreign Direct Investment; Economic Freedom; Economic Growth; Autoregressive Distributed Lag (ARDL)

1. Introduction

Economic growth is the entry point for detecting development progress in a country. The indicator reflects the ability of a country to increase production capacity and national income. One of the indicators that is closely related to the economy is inflation. As an indicator of economic stability, high inflation can reduce people's purchasing power and suppress investment due to increased economic uncertainty [1]. On the other hand, mild inflation on the other hand, mild inflation is often considered a sign of healthy economic growth, as it indicates an increase in demand for goods and services.indicating an increase in demand for goods and services.

The economy will grow rapidly with good capital flows Good investment performance will accelerate these capital flows. Strong investment can also encourage innovation, technology transfer, and the creation of new jobs. This will increase the competitiveness and productivity of the productivity of the economy as a whole, thereby supporting sustainable economic growth. sustainable economic growth. Investment is an important element in supporting economic growth economic growth because it can increase a country's productive capacity and help create new jobs [2].

Increasing added value in the economy requires a conducive business climate and a competitive incentive environment, which allows businesses to innovate and grow. In this context, economic freedom plays an important role in creating such conditions. Economic freedom includes openness to trade, protection of property rights, freedom to invest, and efficient regulation, all of which promote productivity and competitiveness. According to research by [3] concluded that high economic freedom contributes to increased investment, innovation, and market competitiveness, which in turn accelerates economic growth. Observing the relationship between inflation, foreign direct investment, and economic freedom is important to support the vision of Indonesia Gold 2045, which targets high per capita income that can be realized through quality economic growth. In recent years Indonesia's economic growth has fluctuated from 1994-2023 which can be described in the following figure:

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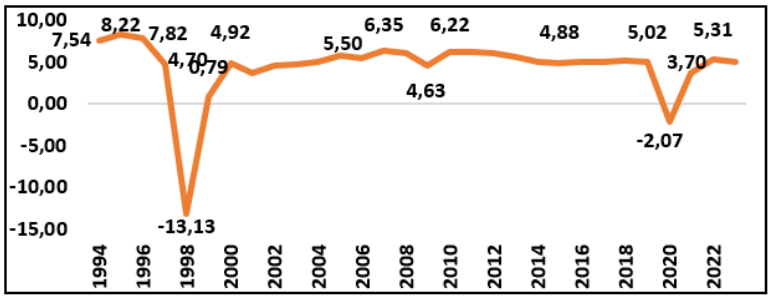

Figure 1. Indonesia Economic Growth 1994-2023

Source: Word Bank

Figure 1. illustrates Indonesia economic growth from 1994 to 2023. In 1994-1996, the Indonesian economy experienced an increase with the growth rate reaching a peak of 8.22%. However, in 1998, Indonesia's economic growth experienced a drastic decline to -13.1% due to the Asian financial crisis at the time. After the crisis, the Indonesian economy began to recover with growth reaching 3-6% per year until 2019. In 2020, the COVID-19 pandemic triggered a global economic recession that affected Indonesia. This led to a contraction in economic growth of -2.1%, which was the first decline since the Asian crisis. In 2021-2023, the Indonesian economy began to show signs of recovery, with average GDP growth reaching 3-5%.

Although Indonesia's economic growth has shown a positive trend after the Asian financial crisis and global recession, the recovery has not yet reached a significant level compared to the pre-crisis condition. In 1996, Indonesia's economic growth reached 8.22%, much higher compared to the period after the crisis, where economic growth was only around 3-6%. This difference reflects the challenges faced by Indonesia in restoring strong economic growth momentum, and shows that despite the improvements, the economy is still in a relatively slow recovery phase compared to the pre-crisis period.

2. Literature Review

2.1. Economic Growth

Economic growth is the increase in the volume of a country production of goods or services over a period of time [4]. It is usually measured through increases in national output, such as Gross Domestic Product (GDP), and is considered a leading indicator of a country or region's economic progress. GDP (Gross Domestic Product) is the economic indicator most often used to compare economic conditions between countries [5] As one of the main measures of economic performance, GDP not only reflects the total value of goods and services produced within a country, but also serves as an important tool for evaluating economic growth and level of development. GDP thus represents the economic conditions and economic growth of a country.

2.2. Classical Economic Growth Theory

Adam Smith, through his work The Wealth of Nations, emphasized the importance of investment as one of the main drivers of economic growth. Smith explained that capital accumulation and reinvestment of profits in productive activities, such as technological improvements and business expansion, contribute to increasing production efficiency and promoting overall economic growth [6]. In addition, Smith also highlighted the importance of price stability in supporting an effective market mechanism. According to him, uncontrolled inflation or interference with market mechanisms, such as excessive money printing, can cause price distortions, reduce investment incentives, and ultimately hinder economic growth. Smith also introduced the concept of the invisible hand which illustrates how individual self-interest, when allowed to operate within the free market, can provide benefits to society as a whole.

2.3. Neoclassical Economic Growth Theory (Solow-Swan)

Neoclassical economic growth theory, known as the Solow-Swan model, is a fundamental theoretical framework in the analysis of economic growth dynamics. Introduced by economists Robert Solow and Trevor Swan in 1956, the model outlines how capital accumulation, labor, and technological progress contribute to an increase in economic output. In this context, long-run economic growth is significantly influenced by technological innovation, which is considered an exogenous factor, meaning that progress comes from outside the economic system itself [7]. The Solow-Swan growth model is an exogenous approach that states that economic growth in the long run is determined by technological progress and population growth rates. Meanwhile, in the short run, capital and labor accumulation play a significant role. This model illustrates how an economy can reach a steady state, where output per capita and capital per capita remain constant due to the diminishing returns effect on capital accumulation.

2.4. Endogenous Economic Growth Theory

Endogenous economic growth theory, which began to emerge in the 1980s, seeks to explain economic growth as the result of internal factors within the economy. This is in contrast to the exogenous growth theory which argues that growth is largely influenced by external factors, such as technological advances that are not explained in the model. One of the main drivers in endogenous economic growth theory is innovation, human capital, and government policies that support investment in research and development (R&D) and human capital development through education [8].

2.5. Keynesian Theory

Keynesian theory, developed by John Maynard Keynes, is one of the most influential economic theories in explaining macroeconomic dynamics, particularly during periods of economic recession or depression. This theory was first presented in detail in his book entitled The General Theory of Employment, Interest, and Money. Keynes introduced the concept that the free market is not always able to achieve full equilibrium at the optimal level of employment. In his view, active government intervention is necessary to stabilize the economy. One of the main premises of Keynesian theory is that the level of aggregate demand, which is the combination of consumption, investment, government spending, and net exports, is the main factor that determines the level of output and employment in the short run. According to Keynes, economic fluctuations are often caused by changes in aggregate demand. When aggregate demand falls, for example due to a decrease in investment or consumption, this can lead to a recession as unemployment increases and production decreases. Furthermore, Keynes also emphasized the importance of the government's role in managing the economic cycle. In a recessionary situation, the government can take an active role by undertaking large public spending to increase aggregate demand. This is known as expansionary fiscal policy.

2.6. Inflation

Inflation is an economic phenomenon characterized by a general increase in the prices of goods and services in a certain period, which ultimately results in a decrease in people's purchasing power [9]. This condition reflects a decline in the value of money, where the same amount of money is no longer able to buy the same amount of goods and services as before. To understand and measure the inflation rate, economists usually use the Consumer Price Index (CPI), which reflects price changes of various goods and services frequently consumed by households. This indicator is an important tool for observing economic stability and setting monetary policy.

2.7. Foreign Direct Investment

Foreign Direct Investment (FDI) is one of the important factors in promoting economic growth. Foreign direct investment refers to investments made by individuals or companies from one country to another, where the investor gains control or significant influence over a business entity in the destination country. Through technology transfer, foreign direct investment enables the recipient country to adopt the latest innovations that improve production efficiency and global competitiveness. In addition, the capital flows that accompany foreign direct investment help strengthen the economic structure through the development of infrastructure, such as transportation, energy, and communications, which are essential for wider economic activity.

2.8. Economic Freedom

Economic freedom is a concept that refers to the right of individuals to participate in economic activities without excessive interference from the government [10]. This principle supports the ability of individuals to work, use their resources, and conduct transactions freely as they wish, as long as they do not violate the law. In other words, individuals have the right to work, produce, consume, and invest as they wish, and this right is guaranteed by the state and not limited by their own government/nation [11]. The concept of economic freedom is rooted in Adam Smith's theory outlined in his book The Wealth of Nations, where Smith argued that when the state protects individual freedom to pursue personal economic interests, this will bring wider prosperity to society. With increased economic freedom, the state can provide more opportunities for people to work, produce, trade and invest. The hope is that increased economic freedom will contribute to an increase in people's overall standard of living.

2.9. The relationship between foreign direct investment and economic growth

Inflation can affect people's purchasing power, thereby reducing consumption and investment, which are the main components of economic growth. However, controlled inflation can boost economic activity by increasing aggregate demand. Inflation at this level is referred to as mild inflation and is considered healthy because it can boost economic activity by creating incentives for consumers and producers to conduct more active transactions. Conversely, inflation that is too high creates economic uncertainty, lowers investor confidence, and slows economic growth [12]. Inflation can also affect economic growth through channels such as exchange rates and production input prices.

2.10. Relationship between Economic Freedom and Economic Growth

Economic freedom contributes to a country's economic prosperity. Aspects of economic freedom, which include the protection of private property rights, freedom of business, free trade, as well as minimal government policies in market intervention, provide a strong foundation for long-term economic growth. Research by Hussain and Haque (2016) shows that economic freedom has a positive impact on the growth of Gross Domestic Product (GDP) per capita, indicating that economic policies that support freedom contribute directly to increased economic output. Economic freedom allows markets to operate more efficiently, encourages innovation, increases productivity, and expands employment opportunities. A free market provides the impetus for firms to invest in new technologies and increase production, which in turn drives economic growth. Economic freedom increases market efficiency and allows individuals to optimally allocate their resources, which in turn increases economic growth.

3. Research Method

This research uses secondary data in the form of time series, which is data collected periodically or sequentially based on time [13]. In this study, the time series data period used is annual data from 1994-2023. The type of data in this study is secondary data, namely data obtained from pre-existing sources, such as reports, publications, or documents, which are then used by researchers for specific research purposes [14]. This research uses data obtained from several sources, namely the World Bank and the Heritage Foundation.

The data analysis method used in this research is quantitative method with Autoregressive Distributed Lag (ARDL) analysis technique using Eviews software. According to [15], the Autoregressive Distributed Lag (ARDL) method is an econometric method that assumes that a variable is influenced by the variable itself but in the previous time. Autoregressive Distributed Lag (ARDL) is a combination of autoregressive (AR) and distributed lag (DL) methods, where "lag" refers to the use of past values to project future values. The AR method utilizes one or more historical values of the dependent variable, while DL includes regressions that involve values of the independent variable in both the present and the past.

In this study, the time series data used is the period 1994-2023 (30 periods). To determine the regression equation, each variable will be estimated by including long-term and short-term lags until the most optimal model is obtained. To examine the effect of inflation, foreign direct investment and economic freedom on Indonesia's economic growth, the long-term relationship can be analyzed using the Autoregressive Distributed Lag (ARDL) model shown by the following equation:

$$gwrtht = \lambda 0 + \sum \lambda 1i\ gwrtht{-}i + \sum \lambda 2i\ inft + \sum \lambda 3i\ inft{-}i + \sum \lambda 4i\ fdit + \sum \lambda 5i\ fdit{-}i + \sum \lambda 6i\ frdmt + \sum \lambda 7i\ frdmt{-}i + et$$

Description :

Gwrth$t$	= Economic Growht
$\lambda 0$	= Constant
$\sum \lambda 1i$ gwrth$t$-i	= Lag Economic Growht
$\sum \lambda 2i$ inf$t$	= Inflation
$\sum \lambda 3i$ inf$t-$i	= Inflation Lag (prior period value)
$\sum \lambda 4i$ fdi$t$	= Foreign Direct Investment
$\sum \lambda 5i$ fdi$t-i$	= Foreign Direct Investment Lag (prior period value)
$\sum \lambda 6i$ frdm$t$	= Economic Freedom
$\sum \lambda 7i$ frdm$t-i$	= Lag of Economic Freedom (prior period value)
Et	= Error term

In using the ARDL method, the stages used are as follows:

3.1. Stasionerity Test

The first step before conducting further analysis, namely short-term and long-term analysis, is to test the stationarity of the data, namely by conducting a unit root test. This unit root test is carried out to see whether the data under study is stationary at the level and first difference because in the ARDL test the data cannot be stationary at the second difference. The very popular Unit Root Test was introduced by David Dickey and Wayne Fuller which we often know as the Augmented Dickey Fuller (ADF). Therefore, this study uses the unit root test with the Augmented Dickey Fuller (ADF) procedure. To determine whether the data has unit roots, a comparison is made between the ADF t-statistic value and the MacKinnon critical value at the 1%, 5%, and 10% significance levels. If the absolute value of the ADF t-statistic is smaller than the MacKinnon critical value, then the data is considered to have no unit root, which means that the data is stationary.

3.2. Optimum Lag Test

After conducting a data stationarity test, the next step in the Autoregressive Distributed Lag (ARDL) analysis is to conduct an optimum lag test. The optimum lag test aims to select the most appropriate number of lags, so as to prevent inappropriate estimation and biased analysis results. According [16] Proper lag selection is very important to ensure the accuracy and reliability of the ARDL model. In order to select an appropriate model in the long-run equation, it is necessary to determine the optimum lag length by using appropriate model order selection criteria such as Akaike Information Criterion (AIC), Schwarz Bayesian Criterion (SBC) or Hannan-Quinn Criterion (HQC)". This research will use the Akaike Information Criterion (AIC), which is a good model that has the smallest criterion information value.

3.3. Classical Regression Assumption Test

The classical assumption test is an important requirement in regression analysis that must be met so that the regression model can be a good and unbiased estimator, otherwise known as BLUE (Best Linear Unbiased Estimator). To achieve this, several classical assumptions must be tested and ensured to be met.

3.3.1. Normality Test

The normality test aims to check whether the dependent variable, independent variable, or both in the regression model are normally distributed. The ideal regression model has data with a normal distribution. This test serves to ensure that testing the significance of the effect of the independent variable on the dependent variable through the t test will be valid if the resulting residuals have a normal distribution. In this study, the normality test was carried out using the Jarque-Bera statistical method which is displayed in the form of a residual histogram. If the Jarque-Bera probability value is greater than 0.05, then the data is considered normally distributed.

3.3.2. Autocorrelation Test

The autocorrelation test on the regression model aims to detect whether there is a correlation between residuals in a certain period and residuals from the previous period (t-1). Autocorrelation occurs when errors (residuals) in one period have a relationship with errors in another period, which often appears in time series data due to the chronological ordering of observations. To detect autocorrelation problems, a commonly used method is the Breusch-Godfrey test or LM test. This test involves comparing the chi-square probability with the critical value at a certain significance level. If the probability value is smaller than the critical value, then there is autocorrelation in the model.

3.3.3. Heteroscedasticity Test

Heteroscedasticity is a condition that makes the regression model inefficient and less accurate. This is caused by the variance of errors or residuals that are not constant between one observation and another. If heteroscedasticity occurs, regression results can be biased or invalid. To detect the presence of heteroscedasticity, the Obs R-squared value is used which is compared with the significance level (alpha). If the Obs R-squared value is smaller than the critical significance value, it can be concluded that heteroscedasticity occurs in the model.

3.4. Bound Test Cointegration Test

Adam Smith, through his work The Wealth of Nations, emphasized the importance of investment as one of the main drivers of economic growth. Smith explained that capital accumulation and reinvestment of profits in productive activities, such as technological improvements and business expansion, contribute to increasing production efficiency and promoting overall economic growth [6]. In addition, Smith also highlighted the importance of price stability in supporting an effective market mechanism. According to him, uncontrolled inflation or interference with market mechanisms, such as excessive money printing, can cause price distortions, reduce investment incentives, and ultimately hinder economic growth. Smith also introduced the concept of the invisible hand which illustrates how individual self-interest, when allowed to operate within the free market, can provide benefits to society as a whole.

3.5. Conditional Error Correction Model

The Conditional Error Correction Model (ECM) test, which is extended with the Error Correction Term (ECT), aims to identify the effect of short-term estimates on the adjustment process towards long-term equilibrium. In the estimation of the ECM model, the ECT value must be negative and statistically significant for the resulting model to be considered valid in describing the long-run and short-run relationships effectively.

3.6. Model Stability Test

The stability test aims to see the suitability of the ARDL model. According to Ekananda (2014), stability is tested using Cumulative Sum of Recursive Residuals (CUSUM) and Cumulative Sum of Squares of Recursive Residuals (CUSUMQ). These tests help identify parameter stability, both in the short and long term. If the test graphs are within the significant limits at the α=5% level, then the parameters of the study variables are considered stable.

4. Results and Discussion

4.1. Stasionerity Test

Table 1. Stasionerity Results

Variable	*Level/First Diff*	Prob.	Stasionerity
Economic Growht	Level	0.0034	*Level*
	First Diff	-	
Inflation	Level	0.2139	*First Diff*
	First Diff	0.0004	
Foreign Direct Investment	Level	0.2469	*First Diff*
	First Diff	0.0003	
Economic Freedom	Level	0.6966	*First Diff*
	First Diff	0.0063	

Source: Researcher Processed Data E-Views 10

Based on table 1 regarding the unit root test processing results, the economic growth variable is stationary at the level level indicated by the probability value (0.0034 <0.05). While the other three variables are stationary at the first difference level. Where, the Inflation variable is stationary as indicated by the probability value (0.0004 <0.05). Then, the foreign direct investment variable is shown with a probability value (0.0003<0.05) and the economic freedom variable is shown with a probability value (0.0063<0.05).

4.2. Optimum Lag Determination

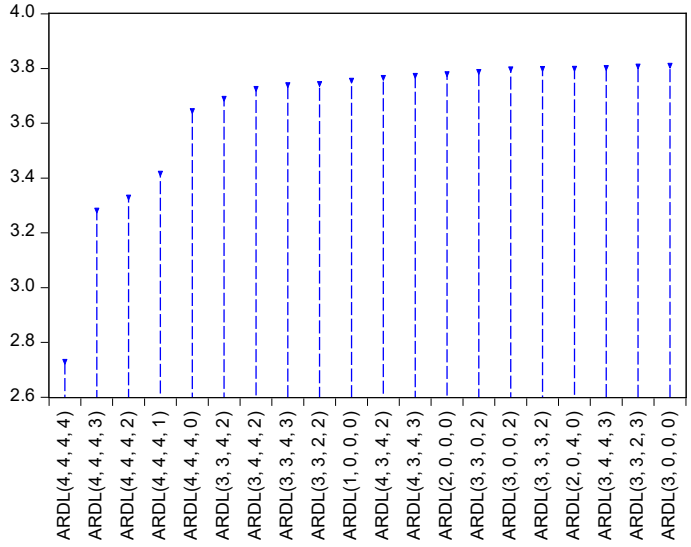

Figure 2. Optimum Lag Determination Results

Source: Researcher Processed Data E-Views 10

Based on Figure of the results of testing the optimum lag length by looking at the smallest Akaike Information Criterion (AIC) of the 20 best models. The best criterion is the ARDL (4,4,4,4) model, which means that Economic Growth is 4 lags, Inflation is 4 lags, Foreign Direct Investment is 4 lags and Economic Freedom is 4 lags.

4.3. Classical Regression Assumption Test

Table 2. Result Classical Regression Assumption Test

Classical Regression Assumption Test	P-Value	Description
Normality Test	0.885724	Normal
Autocorrelation Test	0.6955	No Autocorrelation
Heteroscedasticity Test	0.4109	No Heteroscedasticity

Source: Researcher Processed Data Eviews 10

Based on the test results with the Lomnicki-Jarque-Bera (LJB) method, the p-value is 0.885724> 5%, it can be concluded that the data in the study is normally distributed. Based on the decision-making criteria using the Breusch- Godfrey LM Test by looking at the chi-square probability> 5% there is no autocorrelation. In table 2. the p-value of 0.6955> 5% can be concluded that there is no autocorrelation in this study. The heteroscedasticity test on the ARDL model in the table above uses the Breusch Pagan Godfrey equation. Based on table 2, it can be seen that the p-value is 0.4109> 5%, it can be concluded that the research data does not occur heteroscedasticity problems.

4.4. Bound Test Cointegration Test

Table 3. Result Bound Test Cointegration Test

F - Statistic	**Critical Value α = 5 %**		**Decision**
	I(0) Lower bound	**I(1) Upper bound**	
10.66165	2.79	3.67	Available Cointegration

Source: Researcher Processed Data Eviews 10

Based on Table 3, the results of the Bound Test cointegration test show that the F- Statistic Value> lower bound and upper bound values at 5% significance, namely (10.66165> 2.79 and 3.67). It can be concluded that between the dependent variable Economic Growth with the independent variables Inflation, Foreign Direct Investment and Economic Freedom affect in the long run

Table 4. Multiple Linear Regression Result Test

Model	**Unstandardized Coefficients**			
	B	**Std.Error**	**t**	**Sig.**
(Constant)	81.917	8,644	9.477	<0.001
LnX1	0.005	0,002	2.098	0.045
LnX2	-0.110	0,007	-14.738	<0.001
LnX3	-1.122	0,127	-8.806	<0.001

Source: Data Processing Results, 2025

4.5. Short Term and long Term ARDL Outcomes

The following are the results of the estimation of the effect of the independent variables on the dependent variable which can be seen from the short term results:

Table 5. Short term effect

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GWRHT(-1)	3.939876	0.502008	7.848228	0.0002
GWRHT(-2)	2.639843	0.379366	6.958573	0.0004
GWRHT(-3)	1.546005	0.259753	5.951820	0.0010
INF	-0.042930	0.029648	-1.448006	0.1978
INF(-1)	1.096078	0.136929	8.004729	0.0002
INF(-2)	0.864713	0.117865	7.336455	0.0003
INF(-3)	0.504815	0.080297	6.286823	0.0008
FDI	0.505236	0.220882	2.287362	0.0622
FDI(-1)	-0.992487	0.239899	-4.137100	0.0061
FDI(-2)	-0.932260	0.231033	-4.035175	0.0068

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FDI(-3)	-1.527649	0.257599	-5.930340	0.0010
FRDM	0.230540	0.126708	1.819467	0.1187
FRDM(-1)	1.355742	0.198750	6.821344	0.0005
FRDM(-2)	0.888832	0.193711	4.588439	0.0037
FRDM(-3)	0.553817	0.119738	4.625257	0.0036
CointEq(-1)	-5.857157	0.621391	-9.425875	0.0001

Source: Researcher Processed Data Eviews 10

Based on the ARDL estimation in the short run above, it can be described as follows:

1. The short-term estimation test results explain that the CointEq (ECT) value is -5.857157 and a probability of 0.0001. The Error Corecction Term value is valid if the coefficient is negative with a significant probability at 5%, then the model has met the validity requirements. Likewise with the ECT coefficient that when there is a shock to the Inflation, Foreign Direct Investment and Economic Freedom variables, it takes an adjustment time of 5.85 years for the Economic Growth variable to return to the equilibrium position before the shock.
2. Based on the table, the INF variable in lag 1,2,3 has a significant positive effect on economic growth seen from the probability value of each lag <5% alpha, namely (0.0002) in lag 1, (0.0003) in lag 2 and (0.0008) in lag 3 with the coefficient of each lag, namely INF (-1) 1.096078 which indicates that a 1% increase in inflation in one previous period will increase economic growth by 1.096078%. The INF (-2) coefficient is 0.864713 which indicates that a 1% increase in Inflation in the previous two periods will increase economic growth by 0.864713%. INF coefficient (-3) 0.504815 which indicates that a 1% increase in inflation in the previous three periods will increase economic growth by 0.504815%.
3. Based on the table, the FDI variable in lag 1, 2, 3 has a significant negative effect on economic growth seen from the probability value of each lag < 5% alpha, namely (0.0061) in lag 1, (0.0068) in lag 2 and (0.0010) in lag 3 with the coefficient of each lag, namely FDI (-1) -0.992487 which indicates that a 1% increase in Foreign Direct Investment in one previous period will reduce economic growth by 0.992487%. The coefficient of FDI (-2) -0.932260 which indicates that a 1% increase in Foreign Direct Investment in the previous two periods will reduce economic growth by 0.932260%. INF coefficient (-3) -1.527649 which indicates that a 1% increase in Foreign Direct Investment in the previous three periods will reduce economic growth by 1.527649%.
4. Based on the table, the Economic Freedom Variable in lags 1, 2 and 3 has a significant positive effect on economic growth seen from the probability value of each lag <5% alpha, namely (0.0005) in lag 1, (0.0037) in lag 2 and (0.0036) in lag 3 with the coefficient of each lag, namely FRDM (-1) 1.355742 which indicates that a 1% increase in Economic Freedom in one previous period will increase economic growth by 1.355742%. The FRDM (-2) coefficient is 0.888832 which indicates that a 1% increase in Economic Freedom in the previous two periods will increase economic growth by 0.888832%. FRDM coefficient (-3) 0.553817 which indicates that a 1% increase in Economic Freedom in the previous three periods will increase economic growth by 0.553817%.

The following are the results of the estimation of the effect of the independent variables on the dependent variable which can be seen from the results of the ARDL Long-Term Form Test:

Table 6. Long term effect

Variable	Coefficient	Std. Error	t-Statistic	Prob.
INF	-0.212865	0.029841	-7.133236	0.0004
FDI	0.212134	0.108786	1.950016	0.0991
FRDM	-0.279955	0.016777	-16.68672	0.0000
C	22.08557	1.271239	17.37327	0.0000

Source: Researcher Processed Data Eviews 10

Based on the ARDL estimation in the long run above, it can be described as follows:

1. The INF variable shows a coefficient value of -0.212865 with a probability of 0.0004 which is smaller than the alpha significance level of 5% (0.0004 < 0.05%). This shows that the INF variable has a significant negative effect on economic growth in Indonesia in the long term. So it can be concluded that if there is a 1% increase in Inflation, economic growth in Indonesia will decrease by 0.212865%.
2. The FDI variable shows a coefficient value of 0.212134 with a probability of 0.0991 which is smaller than the 10% alpha significance level (0.0991 < 0.10%). This shows that the FDI variable has a significant positive effect on economic growth

in Indonesia in the long term. So it can be concluded that if there is a 1% increase in Foreign Direct Investment, economic growth in Indonesia will increase by 0.212134%.

3. The FRDM variable shows a coefficient value of -0.279955 with a probability of 0.0000 which is smaller than the alpha significance level of 5% (0.0000 <0.05%). This shows that the FRDM variable has a significant negative effect on economic growth in Indonesia in the long term. So it can be concluded that if there is a 1% increase in economic freedom, economic growth in Indonesia will decrease by 0.279955%.

4.6. Model Stability Test

The model stability test using the Cumulative of Sum (CUSUM) and Cumulative of Sum squares (CUSUMsq) test aims to see stability in short-term and long-term coefficients. The following are the results of the stability test:

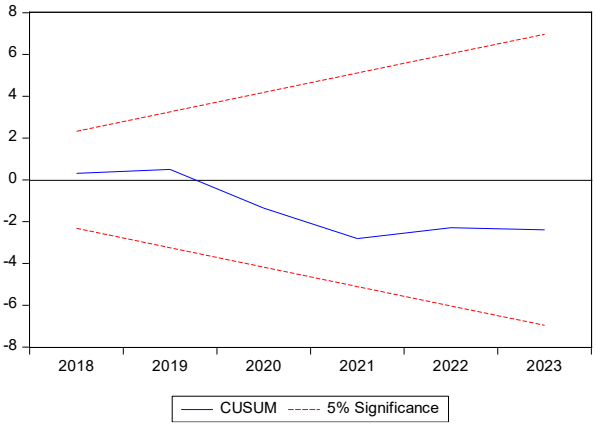

Figure. 3 CUSUM Test

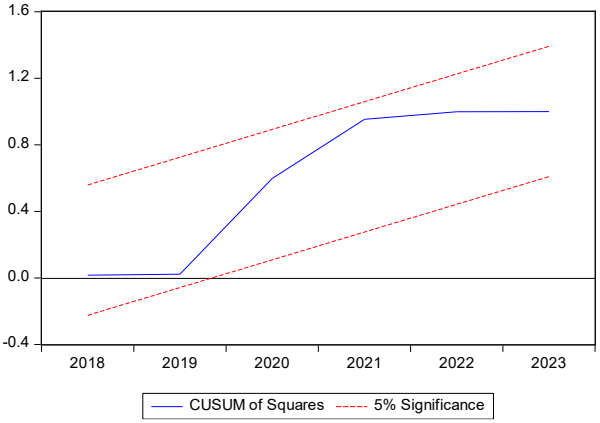

Figure. 4 CUSUMQ Test

Table 7. Simultaneous Test

Model	R Square
1	0,902

Source: Data Processing Results, 2025

During the observation period, it can be seen that the ARDL model tested has been stable and the coefficients statistically can explain the interaction between the dependent variable and the regressor. This is evidenced by the CUSUM graph above, as well asthe CUSUMQ figure where the CUSUMQ plot still enters the critical interval below 5%.

4.7. Analysis of the Relationship Results of Independent Variables to Dependent Variables

1. Based on the short-term regression results, it is found that the inflation variable has a significant positive effect on economic growth. In this case mild inflation will cause consumers to accelerate spending on goods and services before prices rise further, resulting in an increase in aggregate demand. This can be a direct driver of economic growth. In addition, mild inflation can encourage firms to increase production as prices of goods and services increase, providing incentives for economic agents to invest and expand production capacity. In the short term, this increase can boost output and economic growth. The results of the study are in line with [17] which states that Inflation has a positive effect in India in the short term. Research by [18] states that inflation has a significant positive effect on economic growth in the short term. Meanwhile, in the long run, it is found that inflation has a significant negative effect on economic growth. This is in line with the endogenous theory which states that rising inflation creates economic uncertainty, which will discourage investment in physical, human and technological capital. This uncertainty reduces the incentives for innovation and long-term investment which are the main pillars of sustainable growth. In addition, high inflation tends to shift the focus from productive activities towards speculation and real asset hoarding, leading to inefficient resource allocation and a decline in overall economic productivity. Furthermore, high inflation can weaken people's purchasing power, especially for fixed-income groups, which in turn reduces aggregate consumption. Keynes argued that consumption is the main component of aggregate demand, which directly affects the level of economic activity. When inflation weakens purchasing power, consumption declines, which then depresses economic growth in the long run. The results of the study are in line with [19] which states that inflation has a significant negative effect on economic growth in the long run. In the research of [20] it was found that inflation has a significant negative effect on economic growth in the long run, this happens because inflation uncertainty encourages investors to postpone investment decisions, thus hampering economic growth and financial stability.
2. Based on the short-term regression results, it is found that the foreign direct investment (FDI) variable has a significant negative effect on economic growth. Thus, if the value of foreign direct investment (FDI) increases, economic growth will also decrease because it has a negative effect. This negative effect often occurs in competition between foreign companies that have better access to capital and technology with local companies and is often detrimental to local industries, which lose market share and production capacity in a short time [21]. The positive impact of foreign direct investment (FDI) is not instantaneous, but takes time to materialize as the process of technology adaptation, workforce skill upgrading, and integration of local firms into the global business ecosystem is gradual. In the short term, domestic firms may experience pressure due to increased competition, but over time, benefits such as technology transfer, increased productivity, and the creation of new jobs will become more visible, thus contributing to more sustainable economic growth. These results are also in line with research by [21] and [22] which state that foreign direct investment (FDI) has a significant negative effect on economic growth in the short term. Meanwhile, in the long run, it is found that foreign direct investment has a significant positive effect on economic growth. This is in line with Solow growth theory and endogenous growth theory, which emphasize that foreign direct investment (FDI) plays an important role in promoting economic growth, especially in capital-constrained countries. FDI not only increases the accumulation of physical capital, but also improves investment efficiency through technology transfer, improved labor skills, and the adoption of more productive managerial practices. These results are also in line with research by [23] [24] and [25] which state that foreign direct investment has a significant positive effect on economic growth.
3. Based on the short-term regression results, it is found that the economic freedom variable has a significant positive effect on economic growth. In this case economic freedom creates a conducive environment for business activity and investment, by reducing administrative barriers, rigid regulations, and transaction costs. This promotes market efficiency, increases competitiveness, and facilitates more optimal resource allocation, which in turn accelerates economic growth. In addition, economic freedom is often associated with better protection of property rights, legal certainty, and incentives for innovation and entrepreneurship. In the short term, policies that increase economic freedom such as trade liberalization, deregulation, or tax cuts can immediately stimulate economic activity by increasing consumption, domestic investment, and capital inflows. The results of this study are in line with the research of [26] and [27] which state that economic freedom has a significant positive effect on economic growth in the short term. Meanwhile, in the long run economic freedom has a significant negative effect on economic growth. So that if economic freedom increases, it will result in a decrease in economic growth. This happens because excessive liberalization leads to economic inequality where the benefits of economic freedom tend to be concentrated in certain groups or sectors, while other groups are left behind. In addition, too extreme deregulation can reduce government oversight of business practices, potentially encouraging monopolistic behavior or over-exploitation of natural resources. The results of this study are in line with research by [28] which states that economic freedom has a significant negative effect on economic growth in the long run. Meanwhile [29] found that economic freedom has a negative effect on foreign direct investment. This means that when economic freedom increases, it will have an impact on decreasing foreign direct investment. A decrease in foreign direct investment itself will lead to economic instability which in turn slows down economic growth.

5. Conclusions

The results showed that inflation has a significant positive effect in the short term while in the long term the inflation variable has a significant negative effect on economic growth in Indonesia. The foreign direct investment variable has a significant negative effect in the short term while in the long term the foreign direct investment variable has a significant positive effect at the 10% significance level on economic growth in Indonesia. The economic freedom variable has a significant positive effect in the short term while in the long term the economic freedom variable has a significant negative effect on economic growth in Indonesia.

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