

# The Effect of Foreign Debt (ULN) And Foreign Investment (PMA) On Indonesia's Gross Domestic Product (GDP) in the Period (2012-2024)

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## ABSTRACT

Indonesia's economic growth remains a major challenge for the development of the country as the largest archipelagic country in the world. External factors such as Foreign Debt (ULN) and Foreign Direct Investment (PMA) are considered to influence Gross Domestic Product (GDP). This study aims to examine the influence of ULN and PMA on Indonesia's GDP in the period 2012-2024. Multiple regression analysis with the classical assumption test is used as a method in this study by conducting normality tests and hypothesis tests using t statistics and significance values. The results show that ULN has a positive effect with a significance of  $0.000 > \alpha = 0.05$  and a T-count value of 70.096 greater than the T-table of 2.034, which means that an increase in ULN can strengthen national economic development. Conversely, PMA does not show a significant effect on GDP in that period, indicated by a significance of  $0.234 > \alpha = 0.05$  and a T-count value of 1.212 less than the T-table of 2.034. Careful management of external debt can benefit the Indonesian economy, while the success of foreign investment requires greater attention to support optimal economic growth. This research underscores the importance of prudent economic policies in leveraging external factors to improve the welfare of the Indonesian people.

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## 1. INTRODUCTION

Economic growth is a crucial indicator for supporting a country's economic development. Economic growth can be seen from the increased utilization of production factors to generate output. Output, in this case, is measured in Gross Domestic Product (GDP). GDP reflects the productivity of goods and services in a country over a period of one year. GDP growth is a key parameter for assessing the progress and success of a country's economic development.

As a developing country, Indonesia continues to strive to improve the national economy to achieve public welfare. However, limited funding sources remain a major obstacle to promoting sustainable development. Therefore, domestic and foreign investment is crucial for increasing funding capacity. Supported by investment, Indonesia's GDP is expected to experience continuous growth.

Foreign Debt (ULN) and Foreign Direct Investment (PMA) play a crucial role as sources of funding for national development. ULN is often used to cover the state budget deficit, fund development projects, and balance the balance of payments. Meanwhile, PMA plays a role in driving economic progress through job creation, technology transfer, and optimizing production capacity.

However, both instruments carry risks, such as debt repayment and interest or dependence on foreign capital.

Indonesia's GDP growth from 2012 to 2024 exhibited a fluctuating trend. There was a fairly consistent increase each year, but a decline occurred in 2020 and 2022, influenced by the global crisis and the COVID-19 pandemic. Similar fluctuations were also seen in the value of foreign direct investment (FDI), which declined in 2018 and 2020, and in the continued increase in external debt. These dynamics demonstrate a causal relationship between GDP, external debt, and FDI in the Indonesian economy.

Although foreign debt and foreign direct investment (FDI) are recognized as factors capable of accelerating development, there is a contradiction between theory and practice in Indonesia. Foreign debt, originally intended to support development, has the potential to become a fiscal burden, while FDI does not always show a positive contribution to Gross Domestic Product. This situation raises the urgency to further examine the influence of foreign debt and FDI on Indonesia's GDP for the 2012-2024 period, thereby providing an empirical understanding of their roles in national economic development.

This study aims to analyze the influence of external debt and foreign direct investment (FDI) on Indonesia's GDP. By analyzing quantitative data and using statistical methods, it is hoped that a clear picture of the role of these two variables in driving national economic growth will be obtained.

## 2. RESEARCH METHOD

This research employed a descriptive quantitative study design. The independent variables studied were Foreign Debt (ULN) and Foreign Direct Investment (PMA), while the dependent variable was Gross Domestic Product (GDP). Secondary data was obtained from the Central Statistics Agency (BPS), Bank Indonesia (BI), and the Investment Coordinating Board (BKPM). Data collection techniques included observation, literature review, and online research.

The study population included all quarterly data from 2012 to 2024, using a saturated sampling method with a sample size of 36. Multiple linear regression was used for data analysis, including descriptive statistical analysis, classical assumption testing, and hypothesis testing.

## 3. RESULTS AND DISCUSSION

### Research result

Descriptive statistics provide information regarding the general characteristics of the variables being analyzed. The statistical results for the variables in the study are as follows:

**Table 1.** Descriptive Statistics

	N	Min.	Max.	Mean	Std. Dev.
PDB	36	185558020.00	281888740.00	235765528.0556	28258953.63703
ULN	36	90171.00	1246513.00	946227.6944	220941.91897
PMA	36	1514318.00	161726479.00	116546247.8889	46331876.64045
Valid N (listwise)	36				

### Classical Assumption Test Results

#### Normality Test

**Table 2.** Residual Normality Test  
*One-Sample Kolmogorov-Smirnov Test*

		Unstandardized Residual
N		36
Normal Parameters <sup>a,b</sup>	Mean	.0000000
	Std. Deviation	16464654.93777533
Most Extreme Differences	Absolute	.143
	Positive	.143
	Negative	-.092
Test Statistic		.143
Asymp. Sig. (2-tailed)		.062 <sup>c</sup>

a. Test distribution is Normal

b. Calculated from data

c. Lilliefors Significance Correction

Source: Data processing (IBM SPSS 23.0), 2021

The results of the normality test show that the Kolmogorov-Smirnov Test figure in table 3 is 0.062, which is higher than 0.05 and means that the data obtained is normally distributed.

### Multicollinearity Test

**Table 3.** Multicollinearity Test Results

		Coefficient <sup>a</sup>						
Model		Unstandardized Residual		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	134410940.566	13047560.234		10.302	.000		
	ULN	97.346	13.718	.761	7.096	.000	.894	1.118
	PMA	.079	.065	.130	1.212	.234	.894	1.118

a. Dependent Variable: PDB

Source: Data processing (IBM SPSS 23.0), 2021

The multicollinearity test results obtained showed a tolerance value for the ULN variable of 0.894 and a VIF of 0.894 for the PMA variable. Meanwhile, the VIF value for both variables was 1.118. Based on the tolerance and VIF values, it was concluded that there was no multicollinearity problem, as the tolerance value was greater than 0.10 and the VIF value was below 10.

### Autocorrelation Test

**Table 4.** Autocorrelation Test

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.349 <sup>a</sup>	.122	.068	2.32869	1.729

Source: Data processing (IBM SPSS 23.0), 2021

The results of the autocorrelation test show that  $DU < DW < 4 - DU$  has a value of  $1.587 < 1.729 < 2.413$ . This means that in the autocorrelation test, there is no autocorrelation.

## Heteroscedasticity Test

**Table 5.** Heteroscedasticity Test Results

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error			
	1 (Constant)	34.433	1.826		
ULN	3.324E-6	.000		1.732	.093
PMA	1.324E-9	.000	.025	.145	.886

a. Dependent Variable: LN\_RES

Source: Data processing (IBM SPSS 23.0), 2021

## Multiple Linear Regression

**Table 6.** Multiple Linear Regression

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error			
	1 (Constant)	134410940.566	13047560.234		
ULN	97.346	13.718	.761	7.096	.000
PMA	.079	.065	.130	1.212	.234

a. Dependent Variable: PDB

Source: Processed data (IBM SPSS 23.0), 2021

The results obtained from multiple linear regression analysis are shown through the following equation:

$$Y = 134.410.940,566 + 97.346 (ULN) + 0,079 (PMA)$$

With the following test results:

The constant value of 134,410,940.566 indicates that when the ULN and PMA variables have a value of 0, GDP is at 134,410,940.566 (billion). The ULN coefficient ( $\beta$ ) is recorded at 97.346 with a positive direction, as is the PMA coefficient ( $\beta_2$ ) with a value of 97.346 with a positive value.

Based on the values of the variables studied, the variable with the largest regression coefficient is ULN, at 97,346. Therefore, the conclusion is that ULN is the most powerful variable in influencing GDP.

## T-test

The t-test results indicate that the Foreign Debt (ULN) variable has a positive and significant impact on Indonesia's Gross Domestic Product (GDP) for the 2012-2024 period. This is indicated by a significance value of  $0.000 < 0.05$ , and a calculated t-value of 7.096, which is higher than the t-table value of 2.034. Therefore, it is concluded that an increase in ULN can have an impact on GDP growth.

Meanwhile, the Foreign Direct Investment (FDI) variable did not significantly impact GDP. This result is demonstrated by a significance level of  $0.234 > 0.05$ , and a calculated t-value of 1.212, which is smaller than the t-table value of 2.034. This means that despite the inflow of foreign

investment, its contribution to GDP growth remains inconsistent and insufficient during the 2012-2024 period.

#### **F test**

Based on the F-test results, the external debt and foreign direct investment (FDI) variables significantly influence Indonesia's GDP. This is indicated by a significance level of  $0.000 < 0.05$ . This indicates that the regression model is feasible, and the independent variables can simultaneously explain variations in GDP.

These findings indicate that although FDI is partially insignificant, its presence, along with external debt, still contributes to the dynamics of economic growth. In other words, the combination of external debt and FDI remains relevant for analysis in the context of Indonesia's economic development.

#### **Discussion**

##### **The relationship between Foreign Debt (ULN) and Gross Domestic Product (GDP)**

Based on the results of data processing, findings were obtained in the First Hypothesis (H1) test, namely the significance value of the influence of X1 on Y is  $0.000 < 0.05$  with a calculated t value of  $7.096 > t \text{ table } 2.034$ . This indicates that H1 is accepted, meaning that there is an influence of X1 on Y. Thus, the researcher's hypothesis that shows that ULN has an influence on GDP is proven and the analysis of these variables confirms the influence on GDP. The findings of this study are in line with the findings of a study by Muflihul Khair and Bahrul Ulum Rusydi (2016) which revealed that ULN has a positive impact on Indonesia's GDP.

This means that if external debt increases, GDP will also increase. External debt is intended in a country's economy to improve public welfare. However, the use of external debt must be in accordance with policies and prudent principles. While external debt has a positive impact on the sustainability of a country's economy, if not managed optimally, it can create a burden or negative impact on the country and its people.

##### **The relationship between Foreign Direct Investment (FDI) and Gross Domestic Product (GDP)**

The second hypothesis (H2) designed by the researcher is that Foreign Direct Investment (FDI) can affect Gross Domestic Product (GDP). However, based on the test results in the table, the calculated t-value is 1.212 which is lower than the t-table of 2.034, and the significance figure is  $0.234 > \alpha = 0.05$ . Thus, the hypothesis is not proven (H2 is rejected), so FDI is declared to have no effect on GDP. This study is in line with the findings by Muflihul Khair and Bahrul Ulum Rusydi (2016) who revealed that FDI has a negative effect on Indonesia's GDP.

Based on these test results, it is concluded that FDI has no impact on GDP. The relationship between the two is not unidirectional, with increased foreign investment potentially decreasing GDP. In this context, utilizing natural resources is a strategic step in increasing national production with the aim of driving growth in Indonesia's Gross Domestic Product. Going forward, more efficient and effective management and programming of domestic resources are needed to provide optimal benefits to the economy.

#### **4. CONCLUSION**

Foreign Debt (ULN) has been shown to have a positive and significant impact on Indonesia's Gross Domestic Product (GDP) from 2012 to 2024. This demonstrates that financing through ULN can significantly contribute to national economic progress. Foreign Direct Investment (FDI) did not significantly impact Indonesia's GDP during the same period. Although realized foreign investment increased in some years, its contribution to economic growth was inconsistent, likely due to profit repatriation, limited technology transfer, and investment focus on less productive sectors. Both external debt and foreign direct investment (FDI) significantly influence GDP. However, external debt plays a more dominant role than FDI in driving Indonesia's economic growth. Optimizing the Utilization of External Debt. The government needs to ensure that foreign debt funds are allocated productively, particularly in sectors that have a multiplier effect on economic growth, such as infrastructure, education, and strategic industries. Furthermore, installment and interest payment

management must be considered to avoid creating a long-term fiscal burden. Improving the Quality of Foreign Investment. The government must improve regulations and the investment climate so that FDI can provide real added value to the economy, for example by encouraging investment in export-oriented manufacturing, technology, and renewable energy sectors that absorb local labor. Strengthening Domestic Investment. Given that FDI does not always have a significant impact, it is necessary to encourage increased domestic investment through empowering MSMEs, facilitating access to financing, and increasing domestic savings to reduce dependence on foreign capital. Sustainable Economic Policy. The government is expected to maintain macroeconomic stability, improve fiscal governance, and strengthen synergies between monetary, fiscal, and investment policies. This will ensure more stable and sustainable economic growth, as reflected in GDP.

#### DAFTAR PUSTAKA

- Ajat, R. (2018). *Quantitative Research Approach*. Yogyakarta: Budi Utama.
- Apriansyah, KR., and Triyono, A. (2019). *The Essence of Macroeconomics*. Yogyakarta: Budi Utama.
- Bungin, B. (2011). *Quantitative Research Methodology*. Jakarta: Kencana.
- Damodar, G. (1999). *Basic Econometrics*. Jakarta: Glora Aksara Pratama.
- Fridayana, Y. *Regression Analysis Using the SPSS Statistical Computer Application*. Jakarta: Gramedia Utama.
- Gunawan. (2020) *Mastering SPSS: A Practical Guide to Processing Research Data*. Yogyakarta: CV Budi Utama.
- Iqbal. (2004). *Research Data Analysis with Statistics*. Jakarta: PT Bumi Aksara.
- Jhingan. (2016). *Development Economics and Planning*. Jakarta: Rajawali.
- Nicolas, D. (2019). *Quantitative Research Methodology*. Yogyakarta: Deepublish.
- Pratama, R. (2008). *Macroeconomic Theory (An Introduction)*. Jakarta: Publishing Institute of the Faculty of Economics, University of Indonesia.
- Suryani, and Hendryadi. (2015). *Quantitative Research Methods*. Jakarta: PT Fajar Interpratama Mandiri.
- Susanti, DS., Sukmawaty, Y., and Salam, N. (2019). *Regression and Correlation Analysis*, Malang: CV IRDH.
- Jaya, M. (2014). *Analysis of the Influence of Foreign Debt, Foreign Investment, and Exports on Indonesia's Gross Domestic Product 1998-2012* (Doctoral dissertation, Brawijaya University).
- Khair, M., & Rusydi, BU (2016). *Analysis of the Influence of Foreign Debt and Foreign Direct Investment (FDI) on Indonesia's Gross Domestic Product (GDP)*. *EcceS: Economics, Social, and Development Studies*, 3(1), 82-100.
- Lubis, AIF (2016). *Analysis of the Influence of Foreign Debt, Foreign Investment and Exports on Gross Domestic Product in Indonesia for the Period 2005-2014*: Annisa Ilmi Faried Lubis and M. Rivan Riva'i. *Journal of Economic Studies and Public Policy (JEpa)*, 1(2), 19-27.
- Malik, A., & Kurnia, D. (2017). *The influence of foreign debt and foreign investment on economic growth*. *Journal of Accounting*, 3(2).
- Putri, GWM (2020). *Analysis of the Effect of Foreign Debt, Labor, and Exports on Gross Domestic Product in Indonesia 1998–2018* (Doctoral dissertation, Muhammadiyah University of Surakarta).
- Rahman, BA, Al, M., & Musadieq, HS (2017). *The Effect of Foreign Debt and Exports on Economic Growth (A Study of Indonesia's Gross Domestic Product for the Period 2005-2014)*. *Journal of Business Administration*, 45(1).