

THE EFFECT OF DOMESTIC INVESTMENT, GOVERNMENT SPENDING, AND OPEN UNEMPLOYMENT RATE ON THE GROSS REGIONAL DOMESTIC PRODUCT OF EAST JAVA 2020-2024

Naila Laila Rahma Haq^{1*}, Fajar Supanto¹, Lutfi Asnan Qodri¹, Aris Siswati¹

¹*Economics Development Departement, University of Merdeka Malang*

*Email: 22021000011@student.unmer.ac.id

ABSTRACT

Economic growth is one indicator that reflects the level of success of a country's economic development. The indicator used to assess the level of economic growth in a region is Gross Regional Domestic Product (GRDP). This study aims to determine the effect of Domestic Investment, Government Spending, and Open Unemployment Rate on Regional Domestic Product in East Java Province, both simultaneously and partially. The data used is secondary data according to Regencies/Cities in East Java Province for the years 2020-2024. The method used in this study is the panel data regression method. The results of this study indicate that simultaneously and partially, Domestic Investment, Government Spending, and Open Unemployment Rate affect the GRDP of East Java.

Keywords: GRDP, Domestic Investment, Government Spending, Open Unemployment Rate

INTRODUCTION

Economic growth is one of the indicators that reflects the level of success of a country's economic development (Marcal et al., 2024). According to Regina (2022), to assess the level of economic growth in region, one of the commonly used indicators is Regional Domestic Product (RDP). The value of RDP reflects the level of economic development progress in the region concerned (Budihardjo et al., 2020).

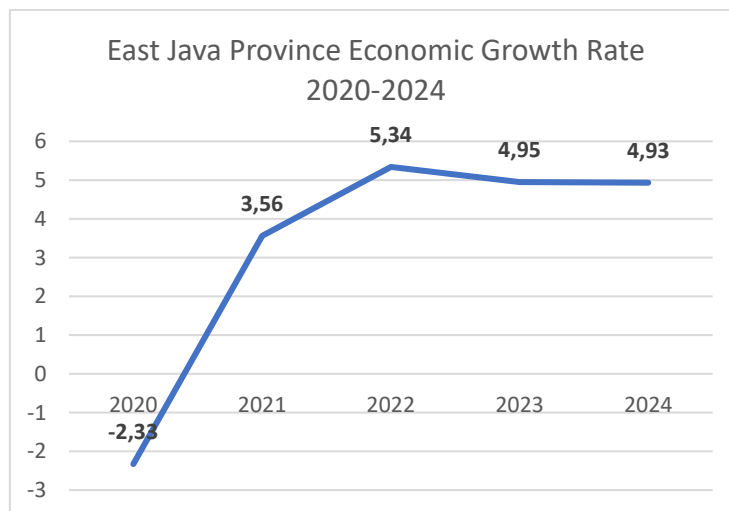


Figure 1. Economic Growth Rate of East Java Province in 2020-2024

Source: (East Java Provincial Statistics Agency, 2025a)

The figure shows that over the last five years, from 2020 to 2024, East Java Province's economic growth has fluctuated. In 2020, economic growth contracted to -2.33% due to the impact of the COVID-19 pandemic, which weakened various economic sectors. However, in the following years, there was a significant recovery. Based on the 2025-2024 East Java Provincial Long-Term Development Plan document by the East Java Provincial Development Planning Agency (2024), one of the problems faced in regional development is the uneven distribution of economic growth between regions. The East Java Provincial Long-Term Development Plan document explains that the economy of East Java is still dominated by the Gerbangketosusila Plus region, which includes the regencies of Gresik, Bangkalan, Mojokerto, Lamongan, Bojonegoro, Tuban, Jombang, as well as the city of Surabaya and the regency of Sidoarjo. This region contributes more than 50% to the total economy of East Java Province. Other regions such as Madura Kepulauan contribute less than 5% to the economy, the Selingkar Ijen region less than 10%, and the Bromo Tengger Semeru (BTS) region and Selingkar Wilis region each contribute less than 20% to the total economy of East Java Province. This condition shows that economic activity and development are still concentrated in certain regions.

One factor that plays an important role in increasing economic growth is investment (Irmawati et al., 2024). Investment comes from two sources, namely Domestic Investment (PMDN) and Foreign Investment (PMA Ain', 2021). PMDN contributes to the expansion of employment opportunities and a reduction in unemployment rates, as this investment is able to drive the industrialization process Pratama & Rofiuddin, 2023).

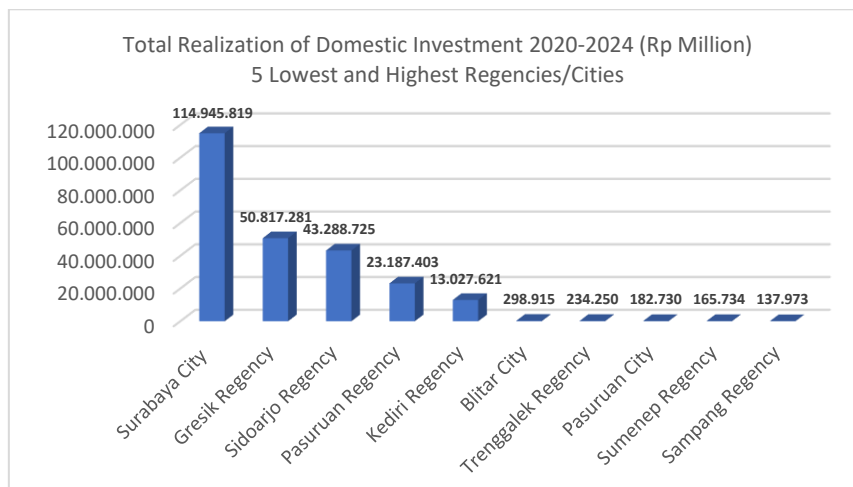


Figure 2. Total Realization of Domestic Investment in Regencies/Cities in East Java Province 2020-2024

Source: Ministry of Investment and Downstreaming/BKPM (2025)

Based on the figure, there is a significant disparity in the distribution of domestic investment among districts/cities. Over the five-year period, Surabaya City received the highest domestic investment realization with a value of IDR 114,945,819, while Sampang Regency received the lowest domestic investment realization with a value of IDR 137,937. This shows that domestic investment activities are still concentrated in urban areas and industrial areas in Gerbangkertosusila, while other areas still face limitations in attracting investors.

In the context of growth, local government spending can play an important role as a driving factor if it is allocated to productive sectors. For example, spending on infrastructure development and human resource development can contribute to increasing production capacity, improving economic efficiency, and expanding employment opportunities (Simanjuntak et al., 2025).

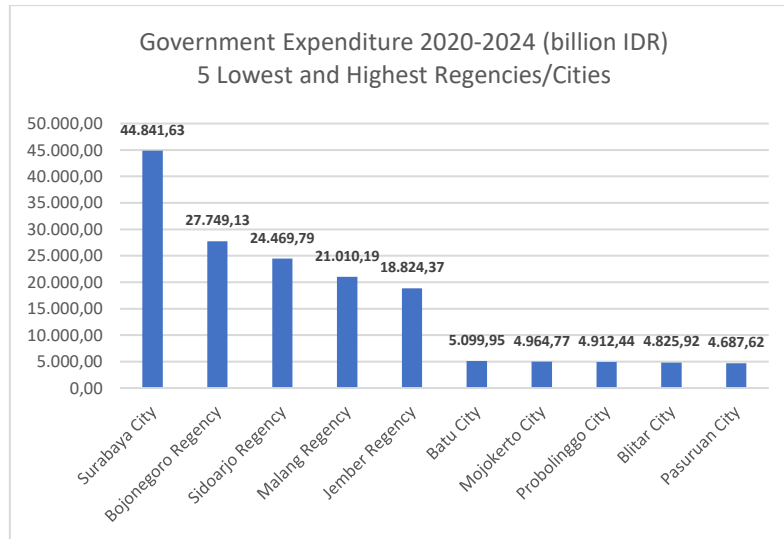


Figure 3. Total Local Government Spending in East Java Province 2020-2024

Source: (East Java Provincial Statistics Agency, 2025a) and
(Ministry of Finance DJPK, 2025)

The figure shows that there are significant differences between regions in terms of government spending over a five-year period. The city of Surabaya recorded the highest expenditure amount of IDR 44,841.63 billion, while the city of Pausuruan had the lowest expenditure amount of IDR 4,687.62 billion. This shows that there is an imbalance in regional financial capabilities between regions, where regions with a strong economic base have greater spending capabilities than other regions, which has an impact on uneven development in East Java.

In addition to domestic investment and government spending, according to Manurung & Damanik (2023), one of the factors influencing economic growth is the open unemployment rate.

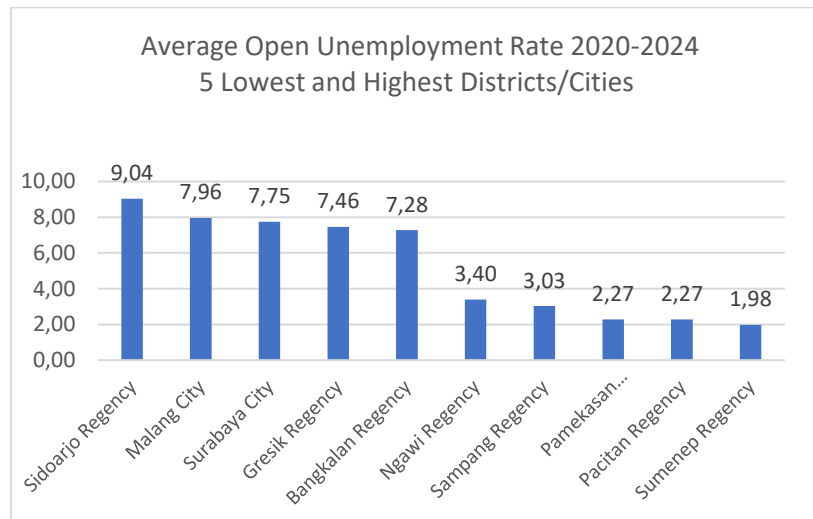


Figure 4. Average Open Unemployment Rate of Regencies/Cities in East Java Province 2020-2024

Source: Central Statistics Agency of East Java Province (2025b)

Based on the figure, it can be seen that the highest open unemployment rate is in Sidoarjo Regency, which has the highest average open unemployment rate of 9.04%, while the lowest is in Sumenep Regency at 1.98%. This shows that open unemployment rate tends to be higher in urban areas and industrial areas, while rural or island areas have lower open unemployment rate. This indicates an imbalance in the labor force structure and employment opportunities between regions.

Many studies have been conducted to analyze the effect of PMDN, government spending, and open unemployment rate on GRDP. For example, by Fitriyani & Fisabilillah (2022) a study conducted on the effect of domestic investment on GRDP in East Java Province for the period 2011-2020 showed that domestic investment had a positive effect on GRDP. Conversely, research conducted by Adi & Dewi (2021) in East Kalimantan Province for the period 2009-2018 found that PMDN had no effect on GRDP. Research conducted by Winowoda et al. (2023) in North Province for the period 2006-2021 showed that government spending had an effect on GRDP. However, the results of a study Saragih et al. (2024) in North Sumatra Province for the period 2013-2022 showed that government spending had no effect on GRDP. Furthermore, the effect of open unemployment rate on GRDP in North Sumatra Province for the period 2019-2023 showed that open unemployment rate had an effect on GRDP Andini & Samsuddin (2025). Meanwhile, research Melisyah (2025) analyzing the effect of open unemployment rate on the GRDP of East Java Province in 2023 shows that open unemployment rate does not affect GRDP.

Although various studies have been conducted on factors that influence regional economic growth, studies that simultaneously analyze the influence of PMDN, government spending, and TPT on GRDP in East Java Province are still relatively limited. In addition, most of the previous studies did not focus on economic dynamics in the post-Covid-19 pandemic period, which was marked by significant changes in investment structure, fiscal policy, and employment conditions. Therefore, this study is necessary to comprehensively analyze the influence of Domestic Investment, Government Spending, and Open Unemployment Rate on Regional Gross Domestic Product in East Java Province. This study is expected to provide a

deeper understanding of the relationship between these three variables in the context of regional economic dynamics, especially in the post-Covid-19 pandemic periode.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

A. Economic Growth

According to Tubagus et al. (2023) economic growth is a quantitative indicator that reflects changes and developments in a country's economic activity over a certain period of time, generally compared to the previous year. The Harrod-Domar theory argues that investment plays an important role in economic growth because investment can increase the stock of capital goods, which enables an increase in output (Rahardja & Manurung, 2019). The Neo-Classical growth theory developed by Solow. In this theory, the factors that determine economic growth only include capital stock and labor (Rahardja & Manurung, 2019).

B. Gross Regional Domestic Product (GRDP)

According to the Central Statistics Agency (2025), GRDP is one of the indicators used to describe the economic conditions of a region in a certain period. GRDP includes the total gross value added produced by all production units or business units in the region. GRDP can also be interpreted as the total net value of final goods and services produced by various economic activities in a region within a certain period.

C. Domestic Investment

According to Law of the Republic of Indonesia Number 25 of 2007 concerning Investment (2007) article 1 paragraph 2, domestic investment is an activity of investing capital to conduct business in the territory of the Republic of Indonesia carried out by domestic investors using domestic capital.

D. Government Spending

In Keynesian theory, government intervention is necessary to strengthen the capitalist economy. However, this intervention is not in the production process, but rather in stimulating aggregate demand. The components of aggregate demand include household consumption (C), investment (I), government spending (G), and net exports (X-M). Thus, it can be formulated as $Y=C+I+G+(X-M)$ (Rahardja & Manurung, 2008). Government spending is expenditure allocated for public interests to encourage regional economic growth and improve community welfare. The priority of government spending is focused on efforts to improve and protect the quality of life of the community as a regional obligation, which is realized through improvements in health services, education, the provision of public and social facilities, basic services, and the development of a social security system (Patadungan et al., 2025).

E. Open Unemployment Rate

According to Elmizan & Asy'ari (2021) open unemployment occurs when the growth in the number of jobs (labor demand) is lower than the growth in the available labor force (labor supply). High unemployment can be an indicator of a slowdown in economic activity, while low unemployment generally has a positive impact on economic growth, due to increased consumption and production activities (Mahmud & Fajar, 2023).

Based on a review of the literature, the following hypothesis was proposed for this study:

1. It is suspected that domestic investment (PMDN) has a positive effect on the GRDP of East Java Province in 2020-2024.
2. It is hypothesized that government spending has a positive effect on the GRDP of East Java Province in 2020-2024.
3. It is hypothesized that the open unemployment rate (TPI) has a negative effect on the GRDP of East Java Province in 2020-2024.
4. It is suspected that PMDN, government spending, and TPT simultaneously affect the GRDP of East Java Province in 2020-2024

RESEARCH METHOD

This study uses a quantitative approach. This study uses secondary data with documentation as the data collection technique. The data used are GRDP data, PMDN investment realization, government expenditure realization, and open unemployment rates obtained from the websites of the Central Statistics Agency, the Ministry of Investment and Downstream Industry/BKPM, and the Ministry of Finance. The population used in this study is 38 districts/cities in East Java.

Data analysis techniques in this study used panel data regression analysis techniques with the aid of Eviews 12. The study was conducted in three stages. The first stage was to estimate the panel data model, starting from the Common Effect Model, Fixed Effect Model, and Random Effect Model. Then, model specification tests were conducted, including the Chow test, Hausman test, and Lagrange multiplier test. The second stage involved testing classical assumptions, including multicollinearity and heteroscedasticity tests. The third stage involved testing model feasibility, including t-tests, F-tests, and coefficient of determination tests. The data regression model in this study is as follows:

$$PDRB_{it} = \alpha + \beta_1 \ln X_{1it} + \beta_2 \ln X_{2it} + \beta_3 X_{3it} + e_{it}$$

Explanation:

<i>PDRB</i>	= Gross Regional Domestic Product
α	= constant
$\beta_1 \beta_2 \beta_3$	= Regresision Coefficient
X_1	= Domestic Invesment
X_2	= Government Spending
X_3	= Open Unemployment Rate
<i>i</i>	= Regencies/Cities in East Java Province
<i>t</i>	= Years 2020-2024
<i>e</i>	= Confounding Variables

RESULTS AN DISCUSSION

A. RESEARCH RESULTS

Model Specification Test

1. Chow Test

Redundant Fixed Effects Tests
Equation: Untitled
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	539.083590	(37,149)	0.0000
Cross-section Chi-square	931.814078	37	0.0000

Figure 5. Chow Test Results

Source: Processed data, 2025

Based on the Chow Test results, the Cross-section F Statistic value is 539.083590 with a probability of $0.0000 < 0.05$, so it can be concluded that the method used is the Fixed Effect Model.

2. Hausman Test

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	99.973421	3	0.0000

Figure 6. Hausman Test Results

Source: Processed data, 2025

Based on the image above, it shows that the cross-section random value is 99.973421 with a probability of $0.0000 < 0.05$, so it can be concluded that the method used is the Fixed Effect Model.

Classical Assumption Test

1. Multicollinearity Test

	X1	X2	X3
X1	1.000000	0.629308	0.326747
X2	0.629308	1.000000	0.140287
X3	0.326747	0.140287	1.000000

Figure 7. Results of the Multicollinearity Test

Source: Processed data, 2025

Based on the multicollinearity test above, the correlation value of each independent variable does not exceed 0.80, so it can be concluded that there is no multicollinearity between the independent variables.

2. Heteroscedasticity Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.216899	1.116521	-0.194264	0.8462
X1	0.002270	0.012635	0.179684	0.8576
X2	0.059731	0.147829	0.404053	0.6868
X3	0.007910	0.011891	0.665223	0.5069

Figure 8. Heteroscedasticity Test Results

Source: Processed data, 2025

The heteroscedasticity test results obtained a probability value of 0.8576 for Domestic Investment, 0.6868 for Government Spending, and 0.5069 for the Open Unemployment Rate. The probability of all independent variables is greater than 0.05, so it can be concluded that there is no heteroscedasticity.

Panel Data Regression Analysis

Variable	Coefficient
C	7.166233
X1	0.014202
X2	0.381502
X3	-0.023506

Figure 9. Fixed Effect Model Test

Source: Processed data, 2025

the regression equation in this study is as follows:

$$PDRB_{it} = 7.166233 + 0.014202LnX_{1it} + 0.381502LnX_{2it} - 0.023506X_{3it} + e_{it}$$

Based on the regression equation from the output above, it can be interpreted as follows:

1. The constant obtained is 7.166233, indicating that if the variables of Domestic Investment, Government Spending, and Open Unemployment Rate are 0, then the GRDP will increase by 7.166233.
2. The regression coefficient for the Domestic Investment variable is 0.014202, meaning that for every 1-unit increase in Domestic Investment, GRDP increases by 0.014202.
3. The regression coefficient for the Government Expenditure variable is 0.381502, meaning that for every 1 unit increase in Government Expenditure, GRDP increases by 0.381502.
4. The regression coefficient for the Open Unemployment Rate variable is 0.023506, meaning that for every 1-unit increase in the Open Unemployment Rate, GRDP decreases by -0.023506.

Model Validity Test

1. t-test

Based on the findings of the t-test with a significance level of 0.05, the t-table value was calculated using Ms. Excel with the TINV formula (significance level; df) with df = n-k-1, df-190-3-1-186, resulting in a t-table of 1.973.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	7.166233	0.359770	19.91893	0.0000
X1	0.014202	0.004071	3.488246	0.0006
X2	0.381502	0.047634	8.009017	0.0000
X3	-0.023506	0.003832	-6.134905	0.0000

Figure 10. t-Test Results

Source: Processed data, 2025

Based on the figure, the t-test results are as follows

- a. Variable (X1) Domestic Investment shows a t-count result of 3.488246 and a t table value of 1.973, which means that the t-count is greater than the t-table (3.488246 > 1.973) Then, when viewed from the probability of 0.0006 < 0.05, this shows that Domestic Investment has an effect on GRDP
 - b. The variable (X2) Government Spending shows a t-count result of 8.009017 and a 1-table value of 1.973, which means that the t-count is greater than the t-table (8.009017 > 1.973). Then, when viewed from the probability of 0.0000 < 0.05, this indicates that Government Expenditure affects GRDP.
 - c. Variable (X3) Open Unemployment Rate shows a t-count result of -6.134905 and a t-table value of 1.973, which means that the t-count is greater than the t-table (-6.134905 < -1.973) Then, when viewed from the probability of 0 < 0.05 this indicates that the open unemployment rate affects GRDP.
2. F-test

Based on the findings of the F-test at a significance level of 0.05. the F-table value is calculated using Ms. Excel with the FINV formula (significance level; df1; df2) with df1=k-1, df1=4-1=3 and df2=n-k, df2 = 190-4=186, resulting in an F-table of 2.653.

Cross-section fixed (dummy variables)

R-squared	0.998550	Mean dependent var	10.18172
Adjusted R-squared	0.998160	S.D. dependent var	0.973833
S.E. of regression	0.041768	Akaike info criterion	-3.324877
Sum squared resid	0.259939	Schwarz criterion	-2.624204
Log likelihood	356.8633	Hannan-Quinn criter.	-3.041045
F-statistic	2564.814	Durbin-Watson stat	1.034908
Prob(F-statistic)	0.000000		

Figure11.F-Test Results

Source: Processed data, 2025

Based on the results of this study, the F-calculated value (F-statistic) is 2564.814 and the F-table value is 2.653, which means that F-calculated > F-table (2564.814 > 2.653). Furthermore, considering that the Prob (F-statistic) is 0.000000 < 0.05, it can be concluded that Domestic Investment, Government Expenditure, and Open Unemployment Rate collectively (simultaneously) influence the Regional Domestic Product.

3. Coefficient of Determination

Cross-section fixed (dummy variables)

R-squared	0.998550	Mean dependent var	10.18172
Adjusted R-squared	0.998160	S.D. dependent var	0.973833
S.E. of regression	0.041768	Akaike info criterion	-3.324877
Sum squared resid	0.259939	Schwarz criterion	-2.624204
Log likelihood	356.8633	Hannan-Quinn criter.	-3.041045
F-statistic	2564.814	Durbin-Watson stat	1.034908
Prob(F-statistic)	0.000000		

Figure 12. Coefficient of Determination Test

Source: Processed data, 2025

Based on the figure, the R-squared value of 0.998550 indicates that the independent variables contribute 99.85%, while the remaining 0.15% is contributed by other variables not included in this study.

B. DISCUSSION

The results of this study indicate that Domestic Investment has a positive and significant effect on the GRDP in East Java Province in 2020-2024. This result is in line with Harrod Domar's theory, which states that investment has a positive relationship with economic growth, thereby impacting GRDP. The results of this study are consistent with previous research conducted by Puspandhari & Huda (2023) which showed that DFI has a significant positive effect on GRDP, because an increase in FDI can be used as capital to drive the economy.

The analysis shows that government spending has a positive and significant effect on GRDP in East Java Province in 2020-2024. The results of this study are in line with Keynes theory, which states that government intervention is necessary to strengthen the capitalist economy. Government spending is directed at developing health services, education, providing public and social facilities, and basic services. The development of public facilities carried out by the government through government spending will increase economic growth. The results of this study are in line with the results of research conducted by Sabilla & Sumarsono (2022), which shows that government spending has a positive and significant effect on GRDP.

The analysis results show that the open unemployment rate has a negative and significant effect on GRDP in East Java Province in 2020-2024. High unemployment can be an indicator of a slowdown in economic activity (Mahmud & Fajar, 2023). The results of this study are in line with research conducted by Andini & Samsuddin (2025), which states that the open unemployment rate has a significant effect on GRDP. Increasing open unemployment will have an impact on slowing economic growth.

Based on the results of the F-test in this study, it shows that the variables of Domestic Investment, Government Spending, and Open Unemployment Rate together have a significant effect on the Gross Regional Domestic Product in East Java Province. This indicates that the higher the Domestic Investment, Open Unemployment Rate, and Government Spending, the higher the GRDP in East Java Province.

CONCLUSION AND RECOMMENDATIONS

From this study, it can be concluded from the F test results that simultaneously, the variables of domestic investment, government spending, and open unemployment rate have a significant effect on the GRDP in East Java Province in 2020-2024. The t-test results indicate that domestic investment has a significant effect on GRDP in East Java Province. Government spending has a significant effect on GRDP in East Java Province and the open unemployment rate has a significant negative effect on GRDP in East Java Province.

Based on the results of the study, the author recommends that the local government optimize the potential advantages of the region. The government can consider the results of the study in formulating development policies, particularly through increased local investment and the expansion of job creation programs. This can make a significant contribution to boosting economic growth in East Java Province.

REFERENCES

- Adi, H. A., & Dewi, R. M. (2021). THE EFFECT OF PMA, PMDN AND MANPOWER ON PDRB OF EAST KALIMANTAN PROVINCE. *Balance: Jurnal Ekonomi*, 17(2), 252–265.
- Ain', N. N. (2021). The Effect of Investment on Growth. *Inaifas Sharia Economics Study Program Journal*, 3(1). <https://doi.org/https://doi.org/10.62097/al-tsaman.v3i1.504>
- Andini, & Samsuddin, M. A. (2025). THE EFFECT OF LABOR FORCE PARTICIPATION (PAK) AND OPEN UNEMPLOYMENT RATE (TPT) ON GRDP IN NORTH SUMATRA PROVINCE. *JUKONI: Journal of Economics and Business*, 2(2), 31–38.
- East Java Provincial Development Planning Agency. (2024). *LONG-TERM DEVELOPMENT PLAN FOR EAST JAVA 2025-2045*. East Java Provincial Government.
- Central Statistics Agency. (2025). *Regional Gross Domestic Product of Regencies/Cities in Indonesia 2020-2024* (Directorate of Production Balance, Ed.; Vol. 16). Central Statistics Agency.
- Central Statistics Agency of East Java Province. (2025a). *East Java Province in Figures 2025* (Central Statistics Agency of East Java Province, Ed.; Vol. 48). Central Statistics Agency of East Java Province.
- Central Statistics Agency of East Java Province. (2025b). *Open Unemployment Rate (TPT) by Regency/City (Percent)*. Central Statistics Agency of East Java Province.
- Budihardjo, A., Arianti, F., & Mas'ud, F. (2020). THE EFFECT OF INVESTMENT, LABOR, AND HUMAN DEVELOPMENT INDEX ON GRDP (Case Study of Regencies/Cities in Central Java Province in 2016-2018). *DIPONEGORO JOURNAL OF ECONOMICS*, 2, 1. <https://ejournal2.undip.ac.id/index.php/dje>
- DJPk Ministry of Finance. (2025). *Realization of the Regional Budget*.
- Elmizan, G. H., & Asy'ari. (2021). *MACROECONOMICS*.
- Fitriyani, E. D., & Fisabilillah, L. W. P. (2022). ANALYSIS OF THE EFFECT OF DOMESTIC AND FOREIGN INVESTMENT ON THE GROSS REGIONAL DOMESTIC PRODUCT OF EAST JAVA. *Journal Of Economics*, 2(1), 89–100. <https://ejournal.unesa.ac.id/index.php/independent>
- Irmawati, Sumardi, & Bakhri, S. (2024). The Role of Foreign Investment in Driving Economic Complexity. *Journal of Government Insight*, 4(1). <https://doi.org/10.47030/jgi.v1i1.53>
- Ministry of Investment and Downstream Industry/BKPM. (2025). *Investment Realization Rankings*. One Data Ministry of Investment and Downstream Industry/BKPM.
- Mahmud, & Fajar, D. A. (2023). *THE INDONESIAN ECONOMY* (Mahmud, Ed.). Darul Falah Foundation.
- Manurung, J. F., & Damanik, D. (2023). The Effect of Open Unemployment and Inflation on Economic Growth in Riau Province. *Journal of Management and Economic Research*, 1(3), 45–53. <https://doi.org/10.54066/jrime-itb.v1i3e>.

- Marcal, I. A. F., Oentoro, Y. P., & Yasin, M. (2024). Economic Growth as a Reflection of a Country's Economic Development. *JOURNAL OF MANAGEMENT AND ECONOMIC BUSINESS*, 2(3), 40–47. <https://doi.org/10.54066/jmbe-itb.v2i3.1898>
- Melisyah. (2025). THE EFFECT OF OPEN UNEMPLOYMENT RATE (TPT) ON GROSS REGIONAL DOMESTIC PRODUCT (GRDP) IN DISTRICTS/CITIES OF EAST JAVA PROVINCE IN 2023. *Management Accounting, Economics*, 17(10). <https://doi.org/10.8734/mnmae.v1i2.359>
- Patadungan, R. D., Isnanto, K. U., Fitrianingtyas, A., & Aslan. (2025). The Effect of Government Spending on Economic Growth: A Case Study of North Kalimantan Province from 2013 to 2023. *Journal of Social Science Research*, 2(11), 144–158. <https://doi.org/10.5281/zenodo.15550112>
- Pratama, D. N., & Rofiuddin, M. (2023). The Effect of Domestic Investment, Foreign Investment, Foreign Debt, and State Sharia Securities on the Indonesian Economy. *Journal of Economics Research and Policy Studies*, 3(2), 81–98. <https://doi.org/10.53088/jerps.v3i2.609>
- Puspandhari, S. B., & Huda, S. (2023). The Effect of Household Consumption, PMDN, and Labor on East Java's Gross Regional Domestic Product. *EKOMA: Journal of Economics, Management, Accounting*, 2(2).
- Rahardja, P., & Manurung, M. (2008). *INTRODUCTION TO ECONOMICS (MICROECONOMICS & MACROECONOMICS)* (3rd ed.). PUBLISHING INSTITUTE OF THE FACULTY OF ECONOMICS, UNIVERSITY OF INDONESIA.
- Rahardja, P., & Manurung, M. (2019). *INTRODUCTION TO ECONOMICS (Microeconomics & Macroeconomics)* (4th ed.). Salemba Empat.
- Regina, T. (2022). ANALYSIS OF FACTORS AFFECTING ECONOMIC GROWTH IN INDONESIA. *Journal of Management, Organization, and Business*, 11(1).
- Sabilla, T. M., & Sumarsono, H. (2022). The Effect of Government Spending, Local Revenue, Domestic Investment, and Human Development Index on GRDP. *Economic Forum*, 24(1), 54–64. <http://journal.feb.unmul.ac.id/index.php/FORUMEKONOMI>
- Saragih, J. R. S., Simanungkalit, J. S. L., & Siregar, M. S. (2024). The Effect of Local Taxes, Government Spending, and HDI on GRDP in North Sumatra. *Aurelia: Indonesian Journal of Research and Community Service*, 3(1), 756–767.
- Simanjuntak, G. Y., Yulika, M., Putri, D. N., & Pangestoeti, W. (2025). THE EFFECT OF LOCAL GOVERNMENT SPENDING ON ECONOMIC GROWTH IN INDONESIA. *JOURNAL OF ECONOMICS AND MANAGEMENT*, 3(6), 260–273. <https://doi.org/10.61722/jiem.v3i6.5158>
- Tubagus, S. D., Rotinsulu, T. O., & Sumual, J. I. (2023). ANALYSIS OF THE EFFECT OF OIL AND GAS EXPORTS, NON-OIL AND GAS EXPORTS, AND INFLATION ON ECONOMIC GROWTH IN INDONESIA FOR THE PERIOD 2001-2021. *Efficient Scientific Journal*, 23.

Law of the Republic of Indonesia Number 25 of 2007 concerning Investment, Pub. L. No. 25 (2007).

Winowoda, A. W. P., Walewangko, E. N., & Rompas, W. F. I. (2023). THE EFFECT OF HUMAN DEVELOPMENT INDEX, LABOR, AND GOVERNMENT SPENDING ON REGIONAL GROSS DOMESTIC PRODUCT (RGDP) IN NORTH SULAWESI PROVINCE. *Scientific Journal of Efficiency*, 23(7), 109–120.