

The Effect of Investment and Capital Expenditure on the Economic Growth of Lampung Province

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Abstract

The fluctuating economic growth in Lampung Province is thought to be influenced by changes in investment and capital expenditure levels. This study aims to determine the effect of investment and capital expenditure on economic growth in Lampung Province for the 2019–2024 period. This study uses a quantitative approach with secondary data types. The study population includes all macroeconomic data related to economic growth, investment, and government capital expenditure in Lampung Province. The study sample uses data from 15 districts/cities in Lampung Province for the 2019–2024 period. Data analysis techniques used include descriptive statistical tests, classical assumption tests, and hypothesis testing using panel data regression. The results show that the investment variable has no partial effect on economic growth, while the capital expenditure variable has a partial effect on economic growth. Simultaneously, investment and capital expenditure affect the economic growth of Lampung Province for the 2019–2024 period. Investment and capital expenditure contribute 14.3442% to the economic growth of Lampung Province, while the remaining 85.6558% is influenced by other variables outside this study. The Lampung Provincial Government is advised to formulate and optimize policies related to investment and capital expenditure to encourage sustainable economic growth and improve community welfare.

Keywords: Investment, Capital Expenditure, Economic Growth, Panel Data Regression, Lampung Province.

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INTRODUCTION

Indonesia, as one of the developing countries with the largest economy in Southeast Asia, continues to face both challenges and opportunities in its economic growth journey. Annual national economic growth, which is around 5%, indicates that although post-pandemic recovery has begun, the growth rate has not yet significantly increased above that figure (Cabinet Secretariat of the Republic of Indonesia, 2024).

The GDP per capita gap in ASEAN is very large. This can be seen from the very wide GDP per capita levels between ASEAN countries, such as Vietnam in 2019 at 7.01%, the Philippines with a high GDP per capita of 6.04%, Indonesia with a GDP per capita of 5.02%, Malaysia with a GDP per capita of 4.33%, and Thailand with the lowest GDP per capita at 2.37%. Thailand has the lowest GDP due to the trade war in the United States, which has caused the baht exchange rate to strengthen higher than other Asian currencies, thereby reducing the competitiveness of export products. An increase in a country's GDP per capita will be in line with domestic consumption, thus being able to provide relatively high economic growth (Sanida et al., 2021).

There are many theories explaining economic growth, one of which is the Harrod-Domar Theory, which explains that every economy can set aside a certain proportion of its national income to replace damaged capital goods (buildings, equipment, materials, etc.). However, to be able to increase the rate of economic growth, new investments are also needed as additional. The Harrod-Domar Theory is a direct development of the short-term Keynesian macro theory into a long-term macro theory. The Harrod-Domar model of economic growth is actually based on the experiences of developed countries. This model is primarily intended for advanced capitalist economies and analyzes the requirements for realizing a "steady growth" of the economy. In maintaining the equilibrium level of "full employment" from year to year, it is imperative that real income and output continue to grow at the same rate as the development of the production capacity of capital goods (Malau et al., 2024).

Economic growth is defined as the development of activities in the economy that causes goods and services produced in society to increase and the prosperity of society to increase, (Permatasari et al., 2024). Every development certainly has problems such as inequality between regions and inefficiency in the utilization of capital expenditures that still overshadow the optimal achievement of economic growth (Winarni & Ahmad, 2020). Economic growth is a reflection or picture of the existence of economic development in the region, therefore the government always strives to ensure that



economic growth always increases such as an increase in the value and quantity of production of goods and services from year to year, (Maury et al., 2023).

Lampung Province is the southernmost province on the island of Sumatra, Indonesia, with its capital city of Bandar Lampung, known as the main gateway to Sumatra, known for its rich cultural diversity. Lampung Province's economic growth over the past decade has demonstrated interesting dynamics to study, particularly in the context of regional development. Lampung Province continues to strive to increase economic activity through infrastructure development, strengthening the industrial sector, and optimizing regional potential such as agriculture, trade, and tourism. Economic growth in Lampung Province has fluctuated but remains positive post-COVID-19 pandemic, indicating a gradual economic recovery. The following graph shows the economic growth of Lampung Province for the period 2019-2024.

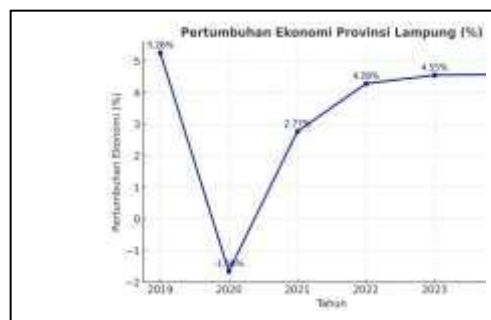


Figure 1. Graph of Economic Growth in Lampung Province 2019-2024
Source: Lampung Province Central Statistics Agency (Processed in 2025)

Based on data from the Central Statistics Agency (BPS) of Lampung Province, it is known that the economic growth rate of Lampung Province during that period tended to fluctuate. In 2019, Lampung Province's economic growth was recorded at 5.26%, reflecting a relatively good economic situation. However, in 2020, during the Covid-19 pandemic, there was a sharp decline of -1.66% due to the impact of the pandemic, which paralyzed various sectors, especially trade, transportation, and the manufacturing industry. In 2021, the economy began to show signs of recovery with growth of 2.77%. This recovery continued into 2022 with growth reaching 4.28%, indicating increased economic activity across various sectors. In 2023, Lampung's economic growth increased again to 4.55%, and slightly increased again in 2024 to 4.57%. Fluctuations in Economic Growth based on Gross Regional Domestic Product (GRDP) can be caused by several factors, including the amount of investment, government spending, inflation or price

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levels, the amount of money circulating in the hands of the public, the determination of tax rates and so on, (Siregar, 2017).

The fluctuating economic growth of Lampung Province is thought to be heavily influenced by the fluctuations in investment and capital expenditure levels within a region. High economic growth is necessary to accelerate the structural transformation of the regional economy toward a balanced and dynamic economy. Economic growth is also necessary to drive and spur development in other sectors, while also serving as a key driver for increasing public income and addressing socioeconomic inequality. In the process of economic growth, investment is a crucial factor in financing development, and therefore, the role of investment is inseparable from economic growth.

Investment can generally be defined as spending on goods and capital, as well as production equipment, to increase the production capacity of goods and services in the economy. Increasing the number of capital goods enables the economy to produce many goods and services in the future. If people invest continuously, it will increase economic activity and employment opportunities, ultimately increasing national income and increasing the level of prosperity of the community. Therefore, investment can be used to encourage the business world to continue producing, thus having an impact on opening wider employment opportunities (Jannah et al., 2024). Investment is an activity in the economy by investing capital directly or indirectly, so that capital owners have the hope of getting profits from the invested capital (Ariani et al., 2024). The development of investment in Lampung Province in recent years has shown fluctuating dynamics towards strengthening the regional economic structure.

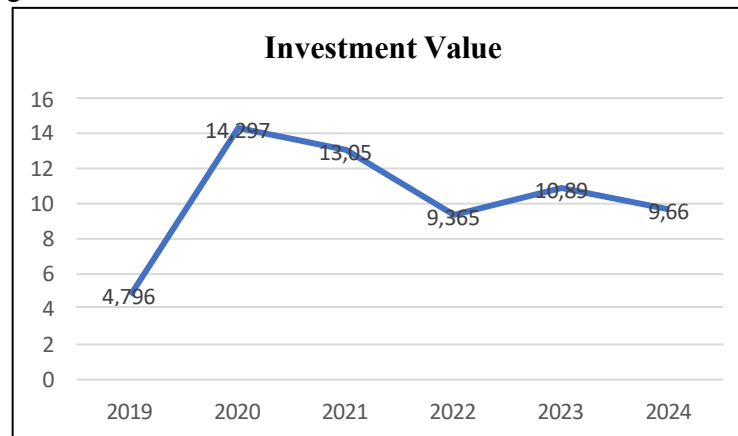


Figure 2 Graph of Investment Value in Lampung Province 2019-2024
Source: Lampung Province Central Statistics Agency (Processed in 2025)

Based on data from the Central Statistics Agency (BPS) of Lampung Province, it is known that the investment value in Lampung Province tends to fluctuate. In 2019, the investment value was IDR 4,796 billion. In 2020, the investment value jumped to IDR 14,297 billion. In 2021, it decreased to IDR 13,050 billion. In 2022, the investment value continued to decline to IDR 9,365 billion. In 2023, the investment value increased to IDR 10,890 billion and in 2024, the investment value decreased again to IDR 9,660 billion. The value of regional investment tends to fluctuate because it is influenced by various economic, political, and market conditions. Fluctuations in investment value will certainly have an impact on the regional economy. Investment is a very important factor in the regional economy because through investment, both domestic and foreign investment, it will help regions to develop their regional economies (Siregar, 2016). The following is a table of capital expenditures of regencies/cities in Lampung Province for the 2019-2024 period.

Table 1. Realization of Capital Expenditure by Regencies/Cities in Lampung Province 2019-2024 (In Billions)

No	Regency/City	Capital Expenditure					
		2019	2020	2021	2022	2023	2024
1	Lambar Regency	220.87	140.86	139.01	181.96	115.79	158.74
2	South Lampung Regency	374.85	266.88	254.31	373.81	243.31	342.91
3	Lamteng Regency	347.46	215.18	355.72	398.50	310.68	374.46
4	East Lampung Regency	204.55	256.81	228.35	186.71	188.84	274.54
5	Lamut Regency	120.76	86.89	116.69	281.62	147.01	283.72
6	Mesuji Regency	215.96	144.15	140.38	137.86	124.78	26.12
7	Pesawaran Regency	196.56	174.11	138.76	176.78	141.13	123.10
8	West Coast Regency	177.05	185.03	206.77	217.25	146.84	90.75
9	Pringsewu Regency	188.98	148.14	218.62	151.19	114.91	126.65
10	Tanggamus Regency	241.69	208.51	175.69	259.90	131.08	224.70
11	Tulang Bawang Regency	137.58	116.59	111.16	136.47	173.36	130.83
12	TBB Regency	269.91	254.92	243.46	148.35	104.55	130.75
13	Way Kanan Regency	297.96	131.44	111.19	109.11	107.71	21.10
14	City of Lampung	310.72	263.72	400.78	424.75	314.62	353.59
15	Metro City	209.52	166.89	128.28	92.40	101.68	102.46

Source: <https://djpk.kemenkeu.go.id> (Processed in 2025)

Based on the table above, capital expenditures from 13 regencies and 2 cities in Lampung Province tend to fluctuate. It is known that in 2019 the highest was in South Lampung Regency at Rp. 374.85 billion. In 2020 the highest was in South Lampung

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Regency at Rp. 266.88 billion. In 2021 the highest was in Bandar Lampung City at Rp. 400.78 billion. In 2022 the highest was in Bandar Lampung City at Rp. 424.75 billion. In 2023 the highest was in Bandar Lampung City at Rp. 322.66 billion. While in 2024 the highest capital expenditure was in Central Lampung Regency at Rp. 370.84 billion. Each capital expenditure in the regencies/cities in Lampung Province can increase or decrease, this is because the Regional Original Income, General Allocation Funds, and Economic Growth of each region are different. In addition, the allocation of capital expenditure used for facilities and infrastructure, both for the smooth implementation of activities and for public facilities, varies in each region (Fauzia, 2017)

Capital expenditure activities in regions are considered to increase community income through development projects that impact local revenues through economic activity. Capital expenditure will have a positive impact on regional economic growth by improving public services and economic activity. Capital expenditure has a positive and statistically significant effect on economic growth (Gampu & Romarina, 2024).

The relationship between investment, capital expenditure, and economic growth can be explained through several key frameworks. First, growth models such as the Harrod–Domar model emphasize that capital accumulation through both private and public investment is a key driver of economic output growth because it increases production capacity and productivity (Qazi & Ammad, 2021). Second, from a capital expenditure perspective, Keynesian theory states that government spending directed toward public investment (e.g., infrastructure and public facilities) has a multiplier effect on aggregate demand and, subsequently, economic output. When capital expenditure is directed efficiently, the private sector is also stimulated by increased productivity and an improved business environment (Isnowati et al., 2020). Third, empirical studies show that both public and private investment have a positive and significant effect on economic growth in developing countries. For example, research shows that gross capital formation and public investment significantly contribute to output growth in many countries.

Thus, in a regional context like Lampung Province, increased investment and capital expenditure should not be viewed solely as fiscal figures but as a strategic mechanism to drive higher economic growth by increasing production capacity, regional competitiveness, and stimulating local economic activity. However, empirical reality does not always demonstrate a linear relationship between investment, capital expenditure, and economic growth as theoretically described.

In a regional context such as Lampung Province, data shows that increases in government investment and capital expenditure are not always accompanied by stable or

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significant economic growth. Several years have recorded increases in regional capital expenditure, but economic growth has actually slowed or stagnated, indicating inefficient budget management and suboptimal investment absorption in the productive sector (BPS, 2025). Seeing this discrepancy between theory and empirical evidence regarding the contribution of investment and capital expenditure to economic growth in Lampung Province, the author was interested in conducting this research.

LITERATURE REVIEW

Theory of Economic Growth

Harrod–Domar Theory

The Harrod–Domar theory was developed by Roy F. Harrod and Evsey D. Domar as an extension of Keynesian theory to explain long-term economic growth through investment and capital formation. According to Sukirno (2019), this theory emphasizes that investment has two important roles: as a component of aggregate demand and as an increase in economic production capacity. Capital formation is considered capable of increasing the economy's ability to produce goods and services in the following period. In this theory, economic growth is influenced by the savings rate and the capital-output ratio. Mathematically, this relationship can be written as follows:

$$g = \frac{s}{k}$$

Information:

g = economic growth rate

s = savings rate

k = capital-output ratio

The Harrod–Domar theory explains that the greater the investment made, the higher the production capacity and economic growth of a region or country.

Neoclassical Theory

The neoclassical growth theory developed by Solow (1956) emphasizes that economic growth is influenced by capital accumulation, labor force growth, and technological progress. This model uses the Cobb-Douglas production function as follows:

$$Y = K^{\alpha}(AL)^{1-\alpha}$$

Information:

Y = output



K = capital

L = workforce

A = technology

α = elasticity of capital

In this theory, technological progress is the main factor determining long-term economic growth.

Keynesian Theory

Keynesian theory, proposed by Keynes (1936), emphasizes the importance of aggregate demand in driving economic growth. Economic growth is influenced by household consumption, investment, government spending, and net exports. The expenditure approach to national income is formulated as follows:

$$Y = C + I + G + (X - M)$$

Output is the sum of the categories of expenditure CIGNX households companies government trade each segment is one source of total demand

Information:

C = household consumption

I = investment

G = government spending

$(X - M)$ = net exports

From a Keynesian perspective, increased investment and government spending can boost aggregate demand, thereby increasing output and economic growth.

Economic growth

Concept and Definition of Economic Growth

Economic growth is the process of increasing the production capacity of goods and services in a region or country in a sustainable manner, demonstrated by an increase in national and regional income. According to Sukirno (2019), economic growth is the development of economic activities that causes goods and services produced by the community to increase, thereby increasing community prosperity. In line with this, (Rahardjo, 2020) explains that economic growth is an effort to increase production capacity as measured by Gross Domestic Product (GDP) or Gross Regional Domestic



Product (GRDP). Meanwhile, Boediono (2020) defines economic growth as the process of increasing output per capita in the long term, emphasizing the process, output increases, and time sustainability. In a regional context, economic growth is measured using changes in GRDP value at constant prices to avoid inflationary distortions. Mathematically, economic growth can be formulated as follows:

$$Growth = \frac{PDRB_t - PDRB_{t-1}}{PDRB_{t-1}} \times 100\%$$

Information:

$PDRB_t$ = Current year's GRDP

$PDRB_{t-1}$ = GRDP of the previous year

Thus, economic growth reflects the dynamics of increasing economic activity which has an impact on improving people's welfare.

Investment

Concept and Definition of Investment

Investment is the activity of investing capital in the present with the aim of gaining future profits. According to Sukirno (2019), investment is the expenditure to purchase capital goods and production equipment to increase economic production capacity in the future. Kasmir (2019) explains that investment is the investment of capital in a business activity for a specific period of time to generate profits. Meanwhile, Samuelson & Nordhaus (2021) state that investment includes the addition of capital stock in the form of buildings, production machinery, and inventory items carried out over a specific period. Thus, investment can be defined as an effort to increase capital aimed at increasing productivity and economic growth.

Types of Investment

Government Investment

According to Mankiw (2020), government investment is investment made by the central and regional governments to provide infrastructure, public facilities, and public services. Government investment is generally not profit-oriented, but rather aims to improve public welfare and regional economic growth.

Private Investment

Private investment is the activity of investing capital by the private sector, both domestically and internationally, to generate profits. This investment consists of Domestic

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Investment (PMDN) and Foreign Investment (PMA). Total investment can be calculated using the following equation:

$$\text{Investasi} = \text{PMA} + \text{PMDN}$$

Information:

PMA = Foreign Investment

PMDN = Domestic Investment

Private investment plays an important role in creating jobs, increasing production, and accelerating economic growth.

Foreign Direct Investment (PMA)

PMA Concept

Foreign Direct Investment (FDI) is an investment activity carried out by foreign investors in Indonesia. According to Law Number 25 of 2007, FDI is the activity of investing capital to conduct business in Indonesia, carried out by foreign investors, either wholly or in collaboration with domestic investors. Salvatore (2021) differentiates FDI into portfolio investment and foreign direct investment (FDI). FDI plays a role in increasing technology transfer, creating jobs, and increasing national production capacity.

Domestic Investment (PMDN)

Domestic Investment Concept

According to Law Number 25 of 2007, Domestic Direct Investment (PMDN) is an investment activity carried out by domestic investors using domestic capital to conduct business in Indonesia. Basalama (2024) explains that PMDN functions to support domestic economic development, expand employment opportunities, and increase regional economic activity. PMDN is an important indicator in assessing regional investment development.

Capital Expenditure

Concept and Definition of Capital Expenditure

Capital expenditure is government spending used to acquire fixed assets that have benefits beyond one accounting period. According to Halim (2020), capital expenditure is budget expenditure to acquire fixed assets such as land, buildings, roads, and other infrastructure. Nauw & Riharjo (2021) explain that capital expenditure is used to increase public service capacity and support regional development. Meanwhile, Lathifa & Haryanto (2019) state that capital expenditure includes expenditures to acquire or improve the

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quality of fixed assets that provide long-term benefits. Thus, capital expenditure plays a crucial role in increasing economic productivity and public welfare.

Types of Capital Expenditures

Land Capital Expenditure

Land capital expenditure is government expenditure for the procurement, release and settlement of land rights used for development purposes.

Capital Expenditure on Equipment and Machinery

This expenditure is used for the procurement of equipment, machinery, vehicles and inventory that support government operations.

Capital Expenditure on Buildings and Structures

Capital expenditure on buildings and structures is used for the construction and rehabilitation of buildings that provide long-term benefits.

Capital Expenditure on Roads, Irrigation, and Networks

This spending is related to the development of public infrastructure such as roads, irrigation channels, and utility networks.

Other Physical Capital Expenditures

Other physical capital expenditures include the procurement of fixed assets other than the previous categories such as books, livestock, and cultural assets.

Capital Expenditure Measurement

According to Government Regulation of the Republic of Indonesia Number 71 of 2010, capital expenditure can be measured by adding several components of fixed asset expenditure. Mathematically, this is formulated as follows:

$$BM = BT + BPM + BGB + BJIJ$$

Information:

BM = Capital Expenditure

BT = Land Purchase

BPM = Equipment and Machinery Purchase

BGB = Building and Construction Expenditure

$BJIJ$ = Road, Irrigation, and Network Expenditure

Effective and targeted capital expenditure will improve infrastructure quality, accelerate economic activity, and support sustainable regional economic growth.



RESEARCH METHODS

This study uses a quantitative approach with a causal-comparative method that aims to analyze the effect of investment and capital expenditure on economic growth in Lampung Province for the period 2019–2024. The quantitative approach was chosen because the study utilizes numerical data in the form of investment realization, local government capital expenditure, and economic growth analyzed using statistical techniques, while the causal-comparative method is used because the research variables are historical and cannot be manipulated by researchers so that the study only focuses on observing the causal relationship between variables based on available secondary data. This study is non-experimental with a regional scope in Lampung Province. The study population includes all macroeconomic data related to economic growth, investment, and local government capital expenditure, with a sampling technique using purposive sampling based on annual data criteria for the period 2019–2024 obtained from the Central Statistics Agency (BPS) of Lampung Province, BKPM/DPMPTSP, and the Directorate General of Fiscal Balance (DJPK) of the Ministry of Finance. The research sample uses data from 13 districts and 2 cities in Lampung Province, thus considered representative in describing the relationship between investment and capital expenditure on regional economic growth. The type of data used is secondary data obtained from official publications of the Lampung Province Statistics Agency (BPS), the Investment Coordinating Board (BKPM/DPMPTSP), regional government budget reports, Bank Indonesia regional economic publications, and other regional planning documents. Data collection techniques are carried out through documentation by accessing, recording, processing, and verifying data related to economic growth, foreign direct investment (FDI) and domestic direct investment (PMDN), and regional government capital expenditure for the 2019–2024 period. The research variables consist of the dependent variable, namely economic growth (Y), which is measured using GRDP growth at constant prices (ADHK), and the independent variables, namely investment (X1) which is measured from the total FDI and PMDN, and capital expenditure (X2) which is measured from the total expenditure on land, equipment and machinery, buildings and structures, as well as roads, irrigation, and networks. The data analysis techniques used include descriptive statistical analysis, classical assumption tests consisting of normality, multicollinearity, heteroscedasticity, and autocorrelation tests, as well as panel data regression analysis using the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM) approaches. The selection of the best model was carried out using the Chow test, Hausman test, and Lagrange Multiplier test, while hypothesis

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testing was carried out through partial tests (t-test), simultaneous tests (F-test), and coefficient of determination (R^2) to determine the magnitude of the influence of investment and capital expenditure on economic growth in Lampung Province.

RESULTS AND DISCUSSION

A. Descriptive Statistics Results

This study aims to determine the effect of Investment (X1) and Capital Expenditure (X2) on Economic Growth (Y) in Lampung Province for the 2019–2024 period. The data used are secondary data in the form of panel data consisting of a combination of time series and cross-section data with a total of 90 observations from 15 districts/cities in Lampung Province during the study period. The results of the descriptive statistical analysis can be seen in the following table.

Table 2 Descriptive Statistics

Information	Investment	Capital Expenditure	Economic growth
Mean	80610.33	88.45678	2.074556
Median	66280.00	88.13500	1,885,000
Maximum	324087.0	158,4000	4.990000
Minimum	5702,000	41.28000	-0.400000
Std. Dev.	64109.13	21.07725	1.299723
Skewness	1.308558	0.310529	0.366693
Kurtosis	5.014599	3.724573	2.288988
Jarque-Bera	40.90463	3.415198	3.912725
Probability	0.000000	0.181301	0.141372
Sum	7254930	7961.110	186.7100
Sum Sq. Dev.	3.66E+11	39538.29	150.3458
Observations	90	90	90

Source: Data processed using Eviews 13 Year 2026.

Based on the table above, it is known that the investment variable has an average value of 80,610.33 with a minimum value of 5,702 and a maximum of 324,087 and a standard deviation of 64,109.13. The capital expenditure variable has an average value of 88.45 with a minimum value of 41.28 and a maximum of 158.40 and a standard



deviation of 21.07. Meanwhile, the economic growth variable has an average of 2.07 with a minimum value of -0.40 and a maximum of 4.99 and a standard deviation of 1.29. These results indicate that each variable has a fairly diverse level of data variation during the study period.

B. Results of Panel Data Regression Model

1. Common Effect Model (CEM)Results

Table 3 Common Effect Model (CEM)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.051069	0.564010	0.090547	0.9281
Investment	-0.000726	0.002035	-0.356977	0.7220
Capital Expenditure	0.023535	0.006170	3.814641	0.0003
Information			Mark	
R-squared			0.143442	
Adjusted R-squared			0.123751	
F-statistic			7.284641	
Prob(F-statistic)			0.001188	
Durbin-Watson stat			1.893113	

Source: Data processed using Eviews 13 Year 2026.

Based on the Common Effect Model estimation results, the investment variable has a probability value of 0.7220, indicating no significant effect on economic growth. Meanwhile, the capital expenditure variable has a probability value of 0.0003, indicating a significant effect on economic growth.

2. Fixed Effect Model (FEM)Results

Table 4 Fixed Effect Model (FEM)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.090273	0.654414	-0.137944	0.8907
Investment	-0.001613	0.002850	-0.565927	0.5732
Capital Expenditure	0.025937	0.006713	3.863718	0.0002
Information			Mark	



R-squared	0.288349
Adjusted R-squared	0.132371
F-statistic	1.848650
Prob(F-statistic)	0.040371
Durbin-Watson stat	2.236495

Source: Data processed using Eviews 13 Year 2026.

The results of the Fixed Effect Model indicate that the investment variable has a probability value of 0.5732, thus having no significant effect on economic growth. Meanwhile, capital expenditure has a probability value of 0.0002, thus having a significant effect on economic growth.

3. Random Effect Model (REM) Results

Table 5 Random Effect Model (REM)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.035302	0.569228	0.062017	0.9507
Investment	-0.000784	0.002076	-0.377795	0.7065
Capital Expenditure	0.023766	0.006187	3.841104	0.0002
Information			Mark	
R-squared			0.145953	
Adjusted R-squared			0.126320	
F-statistic			7.433995	
Prob(F-statistic)			0.001046	
Durbin-Watson stat			1.922374	

Source: Data processed using Eviews 13 Year 2026.

The results of the Random Effects Model indicate that the investment variable has a probability of 0.7065, thus having no significant effect on economic growth. Conversely, the capital expenditure variable has a probability of 0.0002, thus having a significant effect on economic growth.



C. Results of Panel Data Regression Model Selection**1. Chow Test Results****Table 6 Chow Test Results**

Effects Test	Statistics	Prob.
Cross-section F	1.061740	0.4056
Cross-section Chi-square	16.680140	0.2736

Source: Data processed using Eviews 13 Year 2026.

Based on the results of the Chow Test, the probability value obtained was 0.4056 > 0.05 so the selected model was the Common Effect Model (CEM).

2. Hausman Test Results**Table 7 Hausman Test Results**

Test Summary	Chi-Sq Statistic	Prob.
Random cross-section	1.365773	0.5052

Source: Data processed using Eviews 13 Year 2026.

The results of the Hausman Test show a probability value of 0.5052 > 0.05 so the selected model is the Random Effect Model (REM).

3. Lagrange Multiplier Test Results**Table 8 Lagrange Multiplier Test Results**

Method	Probability
Breusch-Pagan	0.9983
Honda	0.5008
King Wu	0.5008

Source: Data processed using Eviews 13 Year 2026.

Based on the results of the Lagrange Multiplier Test, the Breusch-Pagan probability value was 0.9983 > 0.05, so the best model used was the Common Effect Model (CEM).



D. Results of the Classical Assumption Test**1. Normality Test Results****Table 9 Normality Test Results**

Information	Mark
Jarque-Bera	5.539700
Probability	0.062671

Source: Data processed using Eviews 13 Year 2026.

The probability value is $0.062671 > 0.05$ so that the research data is stated to be normally distributed.

2. Multicollinearity Test Results**Table 10 Multicollinearity Test Results**

Variables	Investment	Capital Expenditure
Investment	1	0.128259
Capital Expenditure	0.128259	1

Source: Data processed using Eviews 13 Year 2026.

The correlation value between independent variables is $0.128259 < 0.85$ so that the regression model does not experience multicollinearity.

3. Heteroscedasticity Test Results**Table 11 Heteroscedasticity Test Results**

Variable	Prob.
Investment	0.7220
Capital Expenditure	0.0003

Source: Data processed using Eviews 13 Year 2026.

The results of the heteroscedasticity test show that the regression model does not experience symptoms of heteroscedasticity.

4. Autocorrelation Test Results**Table 12 Autocorrelation Test Results**

Information	Mark
Durbin-Watson	1.893113



dL	1,614
dU	1,704
4-dU	2,296

Source: Data processed using Eviews 13 Year 2026.

The Durbin-Watson value of 1.893 is in the range $1.704 < 1.893 < 2.296$ so that the regression model does not experience autocorrelation.

E. Panel Data Regression Test Results

Based on the model selection results, the best model used was the Common Effect Model (CEM). The regression equation obtained is as follows:

$$Y = 0.051069 - 0.000726X_1 + 0.023535X_2$$

The equation shows that a constant of 0.051069 indicates that if investment and capital expenditure variables are considered constant, then economic growth is valued at 0.051069. The investment coefficient of -0.000726 indicates that an increase in investment will decrease economic growth by 0.000726. Meanwhile, the capital expenditure coefficient of 0.023535 indicates that an increase in capital expenditure will increase economic growth by 0.023535.

F. Hypothesis Test Results

1. t-Test Results

Table 13 t-Test Results

Variable	t-Statistic	Prob.	Information
Investment	-0.356977	0.7220	Not Significant
Capital Expenditure	3.814641	0.0003	Significant

Source: Data processed using Eviews 13 Year 2026.

The t-test results show that investment does not significantly influence economic growth because the probability value is $0.7220 > 0.05$. Conversely, capital expenditure significantly influences economic growth because the probability value is $0.0003 < 0.05$.

2. F Test Results

Table 14 F Test Results

Information	Mark
F-statistic	7.284641
Prob(F-statistic)	0.001188

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F table	3.10
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Source: Data processed using Eviews 13 Year 2026.

The results of the simultaneous F test show that the calculated F value is 7.284641 > 3.10 and the probability value is 0.001188 < 0.05 so that investment and capital expenditure together have a significant effect on economic growth.

3. Results of the Coefficient of Determination (R^2) Test

Table 15 Results of the Determination Coefficient Test

Information	Mark
R-squared	0.143442
Percentage of Influence	14.34%
The rest	85.66%

Source: Data processed using Eviews 13 Year 2026.

The results of the coefficient of determination test show that the investment and capital expenditure variables are able to explain variations in economic growth by 14.34%, while the remaining 85.66% is influenced by other variables outside this study.

DISCUSSION

This research is entitled the influence of investment and capital expenditure on economic growth in Lampung Province for the period 2019-2024, where the research results can be described as follows:

The Impact of Investment on Economic Growth in Lampung Province for the 2019-2024 Period

Investment is the activity of placing funds in an asset for a specific period with the expectation of generating income and/or increasing investment. Investments consist of foreign direct investment (FDI) and domestic direct investment (DDI). Foreign direct investment is investment sourced from foreign sources, while domestic direct investment is investment sourced from domestic sources. Investments are used to establish businesses that are open to investment and are intended to generate profits.

In this study, Investment (X_1) partially obtained a calculated t value. -0.356977 and the Prob value is 0.7220. Thus, it means $-0.356977 t_{\text{count}} < t_{\text{table}} 1.987$ (attached t_{table}) with a



Prob value of $0.7220 > 0.05$. This shows that the hypothesis H_{a1} is rejected and H_{o1} is accepted. So it can be interpreted that the Investment variable (X_1) does not affect the Economic Growth (Y) of Lampung Province for the 2019-2024 period.

Investment has no effect on economic growth, consistent with research conducted by Simangunsong (2021), which found that investment had no significant partial effect on economic growth in North Sumatra during the 2016–2021 period. This suggests that the impact of investment on economic growth can vary depending on the time period and other influencing factors.

Many factors contribute to the ineffectiveness of investment in economic growth in Lampung Province from 2019 to 2024, one of which is the quality of the investment itself. The quality of investment, which focuses more on job creation and increasing productivity in the real sector, is far more important than the nominal amount of investment. The Lampung Provincial Government continues to develop and increase investment in technology, resulting in significant investment in industrial sectors that utilize advanced technology or machinery rather than human labor. Consequently, large investments do not absorb much labor, resulting in a significant increase in people's purchasing power. Therefore, improving the quality of investment, especially in the real sector, is a strategic effort to accelerate regional economic growth in Lampung Province (Mutiarani, 2025).

Investment is not a benchmark that guarantees economic growth in a region; rather, it is only one factor that can foster economic progress and improvement in Indonesia. The impact of investment depends on a region's macroeconomic policies. Low levels of public service are primarily related to uncertain costs, licensing times, and commercial bureaucracy, as well as the presence of taxes, official and illegal levies. This can lead to investor concerns about investment due to macroeconomic instability, political instability, corruption, bureaucracy, licensing, and regional regulations (Muryanto et al., 2022).

The Impact of Capital Expenditure on Economic Growth in Lampung Province for the 2019-2024 Period

One type of government expenditure is capital expenditure, which is defined as budget expenditure for the acquisition of fixed assets and other assets that provide benefits for more than one accounting period. Capital expenditure includes land, equipment and machinery, buildings, roads, irrigation, and networks, other fixed assets, and other assets. Capital expenditure is a long-term asset investment because it has significant potential to drive economic growth through improvements in infrastructure and public services, which increase productivity and economic activity.

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the partial t -value for Capital Expenditure (X_2) was obtained. 3.814641 and the Prob value is 0.0003. Thus, it means that $3.814641 t_{\text{count}} > t_{\text{table}} 1.987$ (attached t_{table}) with a Prob value of $0.0003 < 0.05$. This shows that the hypothesis H_{a2} is accepted and H_{o2} is rejected. So it can be interpreted that the Capital Cost variable (X_2) has an effect on the Economic Growth (Y) of Lampung Province for the 2019-2024 period.

The impact of capital expenditure on economic growth is consistent with research conducted by Gampu & Romarina (2024), which showed a positive and statistically significant impact on economic growth in Bitung City from 2012 to 2022. Capital expenditure requires a lengthy process, beginning with budgeting and ending with implementation. These expenditures are then used solely by the community or used to improve the economy.

Capital expenditure has a positive impact on economic growth. This means that if capital expenditure in Lampung Province increases from 2019 to 2026, economic growth will also increase. Capital expenditure is spending that creates fixed assets and is generally carried out by public authorities. Equipment, buildings, infrastructure, and other fixed resources are examples of local government fixed resources obtained from capital expenditures (Etika et al., 2022).

Higher capital expenditures, in turn, lead to higher regional economic productivity, as infrastructure investments significantly impact economic growth and job creation. Good infrastructure is expected to create efficiency and effectiveness across various sectors, boosting community productivity, and ultimately leading to increased economic growth. Therefore, it can be concluded that higher capital expenditures will lead to increased regional economic growth (Bado, 2016).

The Impact of Investment and Capital Expenditure on Economic Growth in Lampung Province for the 2019-2024 Period

Economic growth is a sustained increase in a country's production of goods and services, indicating increased production capacity and societal prosperity. Economic growth is the process of economic progress over a period of time, leading to improved economic conditions. Economic growth is a necessary prerequisite for economic development and serves as a benchmark and determinant of subsequent development policies. Improvements in national-scale development can be seen in Gross Domestic Product (GDP). Meanwhile, within a region, it can be seen in Gross Regional Domestic Product (GRDP) (Hamza & Agustien, 2019).



In this study, Investment and Capital Expenditure simultaneously obtained a calculated F value of 7.284641 and a probability value of 0.001188 . Thus, the calculated F 7.284641 > 3.10 F_{table} and Prob value 0.001188 < 0.05. So it can be concluded that the independent variables Investment (X_1) and Capital Expenditure (X_2) simultaneously or together have a significant effect on (Y) Economic Growth of Lampung Province for the 2019-2024 Period. Thus, this shows that H_{a3} is accepted and H_{o3} is rejected. -squared obtained a value of 0.143442 which will be converted into a percentage of 14.3442% which means that the independent variables Investment (X_1) and Capital Expenditure (X_2) have an effect of 14.3442% on the dependent variable (Y) Economic Growth of Lampung Province for the 2019-2024 Period. While the remaining 85.6558% is influenced by other variables not examined in this study.

Investment and capital expenditure have a significant positive impact on economic growth by increasing production capacity, creating jobs, encouraging innovation, and building infrastructure, ultimately boosting national income and public welfare. Private and foreign investment brings funds for business expansion, while government capital expenditure on infrastructure and fixed assets stimulates further economic activity, fostering sustainable growth and cumulatively increasing productivity.

TO CONCLUSION AND SUGGESTIONS

Conclusion

Based on the results of research on the influence of investment and capital expenditure on the economic growth of Lampung Province for the 2019–2024 period, it can be concluded that partially the investment variable does not have a significant influence on the economic growth of Lampung Province. Meanwhile, the capital expenditure variable is proven to have a positive and significant influence on economic growth. Simultaneously, investment and capital expenditure together have a significant influence on the economic growth of Lampung Province. The results of the coefficient of determination test show that the contribution of the investment and capital expenditure variables in explaining economic growth is 14.3442%, while the remaining 85.6558% is influenced by other variables outside this study.

Suggestion

Based on the research results obtained, the Lampung Provincial Government is expected to improve the distribution of economic development, particularly in relatively underdeveloped districts/cities, by developing potential sectors such as agriculture,

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plantations, tourism, and industry. Furthermore, the government needs to continue optimizing investment and capital expenditure policies, particularly in the development of basic infrastructure such as roads, public facilities, and other economic support facilities to facilitate community activities and the distribution of goods. These efforts are expected to encourage sustainable regional economic growth and improve the welfare of the people of Lampung Province.

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