THE INFLUENCES OF INVESTMENT TOWARDS REGIONAL GROSS DOMESTIC PRODUCT (RGDP) IN LAMPUNG PROVINCE

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Abstract- *This study examines the effect of investment to RGDP. Problems in Lampung province is RGDP growth and investment that fluctuates. It has not been known yet how the contribution of investment to RGDP. By knowing the contribution of these factors, policies can be formulated to attract investors to invest in Lampung Province. This research used explanatory method that aims to explain the causal relationship between variables and test the hypotheses. This research used secondary data in the form of time-series data for 33 years using simple linear regression analysis with the technique of Ordinary Least Square (OLS) by using the Eviews program version 7.0. The research findings showed that the increase in RGDP relies on investment. Furthermore, this study also found out that increasing the investment is a strategy to increase the RGDP in Lampung Province.*

Keywords: Investment, RGDP in Lampung Province

1. INTRODUCTION

In order to achieve the national goals, the Government has done all programs in all fields that one of its objectives is to achieve economic development progress as measured by Gross Domestic Product (GDP), per capita GDP or per capita Income, and per working hour income. The development in Lampung province lasted comprehensively and continuously is an aggregate development of 15 districts / cities in Lampung province that can not be jointly separated from efforts between government and society. However, on the other hand, various obstacles in maximizing the potential of human resources and capital resources are still faced by policy makers at the provincial and district / city so that the achievement of economic growth in Lampung was always under the National economic growth. RGDP in Lampung province faced an average growth of 5.33 percent below the national economic growth of an average of 6.02 percent (BPS Lampung Province, 2014).

Theory of Neo Classical Economic Growth stated that economic growth in the region as measured by GDP growth depends on the development of the factors of production, namely; capital, labor and technology (Sukirno, 2004). Keynes Multiplier Theory states that an increasing number of investments will expand output and manpower employment. Therefore, investment is one part of the GDP so that if one part increases, the entire section will also increase (Samuelson And Nordhaus W., 2004). From the data, it is seen that the investment in Lampung Province has fluctuated in the period 2006 -2013 for both foreign and domestic investment. In Total Value of Investment also fluctuated but very high investment growth occurred in the year 2011 reaching 74.16 percent compared to the year 2010. This growth mainly occurred in Domestic Investment which increased up to 102 percent (BPS Lampung Province in 2014). Once the importance of investment for a region in an effort to boost GDP, by looking at the empirical data it is showed that the investment growth fluctuates and so does GDP growth. Based on

previous statements, the researchers wanted to analyze the influence of investment to GDP.

Problem Identification

Problem Identification as follows:

1. RGDP Lampung province fluctuating period of 2004 until 2013
2. RGDP growth in the period 2004 until 2013 for annual average of 5.33 percent of RGDP which is still below the national average of 6.02 percent.
3. Investment in Lampung Province always fluctuates both in foreign investment and domestic investment.

Problem Formulation

Formulation of the problem: How does the investment influence Regional Gross Domestic Product?

Objectives and Research Benefits

This study aims to find and analyze the influences of investment towards Regional Gross Domestic Product (RGDP). It is expected that this study will be useful as an input to the Government of Lampung Province as policy makers to increase investment in the region as an effort to increase the RGDP of Lampung Province.

2. THEORETICAL FRAMEWORK AND HYPOTHESES

Theoretical Framework

One of the indicators that are considered important to know the condition of the regional economy is Regional Gross Domestic Product, both at current prices and at constant prices. RGDP is the value added generated by all economic units in a particular area. RGDP at current prices illustrates the added value of goods and services calculated using prices prevailing at each year, while the RGDP at constant prices shows the added value of goods and services calculated by the price prevailing at a particular time as the base year (Central Bureau Statistics, 2013). The development of RGDP at current prices from year to year describes developments caused by changes in the volume of production of goods and services produced and the changes in price levels and shows revenues that can be benefitted by the residents of an area as

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well as illustrate the t-value of added goods and services calculated by using annual price.

A high level of national income would increase public revenue and will further increase the demand for goods and services. Corporate profits will grow and encourage more investments. Investment levels will inevitably impact output production (GDP) or the increase in investment will give a multiplier effect on GDP, it is reinforced by the Theory of Neo Classical Investment (Sukirno, 2004). According to Adam Smith, there are four factors that affect economic growth, namely: the total population, the number of stock of capital goods, land area and natural resources, and applied technology. He further explains that the growth has a cumulative process that occurs if prosperity as a result of the success of the investment increases output then it will increase GDP as well. Based on the description above, it can be drawn into the Framework theory as follows :
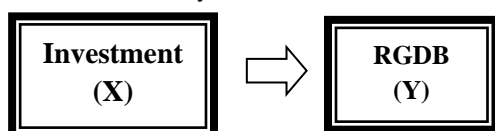
Fig 1: Research Paradigm

hypothesis

Formulated Hypothesis: There is a significant influence between the investment towards RGDP.

3 . RESEARCH METHODOLOGY

Place and Time Research

This research was conducted in Lampung Province for 3 months starting in March 2014 until May 2014 which includes the planning process including the preparation, assessment, and research proposal arrangement. Implementation process and reporting the results of research include the data collection, data processing and arrangement of research reports.

Methods

This research used explanatory research method that aims to explain the causal relationship or between variables and to test hypotheses (Singarimbun and Sofyan Efendi, 1995). The causal relationship between variables described is the Influence of Investment towards RGDP. The data used in this research is time-series secondary data in 1980 until 2013 which was obtained from the Central Statistics Agency (BPS) Lampung Province, Bank Indonesia (BI) Lampung, Regional Development Planning Board (BAPPEDA) Lampung, and other references related to the issues discussed in this study.

Operational Variables

Table 1: Operational Variable of Research

No.	Variables	Indicator	Unit	scale
1	X = investment	Realization Value in domestic and foreign investment in total	Billions rupiah	Ratio
2	Y = RGDB	constant price RGDP by Production approach	Millions rupiah	Ratio

Source: Data processed

Research Model and Data Analysis Methods

Research Model

Based on the research variables relevance, the research model can be formulated as follows.
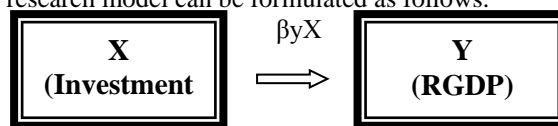
Fig 2: Research Model

Specification:

X = Investment

Y = RGDP

βX = Relationship between Independent Variables (X) and Dependent variable (Y)

Based on the research model, the Structural equation can be made. The main objective of equation model analysis is to describe the relationship between construct independent variables and construct dependent variables.

Structural model:

The influences of Investment towards RGDP

$Y = f(X)$

$Y = \beta o + \beta X + \text{Є}$

Specification:

Y = independent variable RGDP

X = dependent variable Investment

βo = parameter

Єi = error (the irritant error)

Method of Analysis

The analytical methods used to test the hypotheses is simple linear regression analysis with the technique of Ordinary Least Square (OLS).

hypotheses Testing

Hypotheses testing between variable X towards variable Y

H0 : βy = 0 : There is no influence of variable X towards variable Y

H1 : βy ≠ 0 : There is the influence of variable X towards variable Y

Test criteria : reject the hypothesis (H0) , if $t_{count} > t_{table}$, or P $_{Value} < 0.05$

4 . ANALYSIS AND DISCUSSION

4.1 ANALYSIS

Descriptive analysis

investment

From the data in total investments, both domestic and foreign investments from 1980 to 2013 have fluctuated. The total annual average investment is 1974.65 billion and the average growth is 15.42 percent. Domestic capital investment has also fluctuated with the average amount of investment is 1201.60 Billion per year and the average growth is 13.32 percent. Foreign investment has also fluctuated with the average amount of investment is 773.05 billion per year and the average growth is 48.84 percent. Furthermore, the presence of Regional Investment Agency of One-Stop Cohesive Licensing Services in Lampung Province applied in 2009 had a positive effect by increasing the investments in 2010

to 2012 with an investment in 2012 amounted to Rp 943.05 billion.

Regional Gross Domestic Product

RGDP is one of the indicators of economic growth which describes the economic development of the region. With high economic growth rates, productivity and community incomes are expected to rise through the creation of employment opportunities and the chance to endeavor (Central Bureau of Statistics, 2012). Economic growth in Lampung province in 1980 - 2012 is shown by the RGDP which tends to rise gradually by an average growth of 11.82 percent. The economic structure of Lampung province is dominated by Primary sector. It is seen that the role of the primary sectors (Agriculture, mining, and fishery) dominate in contributing to RGDP, followed by the tertiary sectors (trade, hotels and restaurant, and other services) and lastly the secondary sectors (manufacturing, construction, electricity, gas, and water).

The Inductive Analysis

The Results

The measurement results of Structural Model

The influences of Investment towards GDP are presented in the following table

Table 1:The Result of Test Influences of Investment towards RGDP

The influence	Coefficients	
	B	R²y.X
The influences of investment towards RGDP	1.116724	0.910429

The results of RGDP regression coefficient amounted to 1.116724 is sufficient to contribute to the RGDP and the level of influence is 91.04 percent and the remaining 8.96 is influenced by other variables.

Interpretation

The results of Regression Coefficients Analysis of the influences of Investment towards RGDP.

The regression coefficient value of investment is $\beta = 1.1167$. It means the RGDP elasticity value of the investment is equal to E = 1.1167. $E_{value} > 1$, thus, it indicates that RGDP growth is elastic on investment. The elasticity of 1.1167 indicates that the increase of 1 unit in investment is followed by an increase in RGDP amounted to 1.1167 units. Conversely, the decline in investment of 1 unit is followed by a decline in RGDP amounted to 1.1167 units. Elasticity (E)> 1 indicates a condition that is elastic or increasing returns to scale (the result of a larger increase). Hypothesis testing of the influences of investment towards RGDP significantly is done using t-test. Based on the results of test calculations it is obtained that p-value = 0.0000 which is less than the significance level $\alpha = 0.05$. Thus, *Ho* is rejected and *Ha* is accepted, meaning that the research hypotheses regarding the significant influences of investment towards RGDP is acceptable. Based on the results of the regression coefficient, it can be said that the investment in Lampung province has been able to increase RGDP. This is in line with Boediono (1999) that The Classic considers capital accumulation as an absolute condition for economic development. It can be indirectly said that by doing so it can increase the RGDP. In line with the theory of the multiplier, Keynes said that increased investment will expand output and employment. Therefore, investment is one part of the GDP so that if one part increases, the entire section will increase as well (Samuelson And Nordhaus W., 2004).

In line with Wirasasmita (2009), it is said that increased investments will increase aggregate spending in the economy and will be used by companies to buy capital goods and services in order to increase the ability to produce goods and services which means an increase in national income.

5 . CONCLUSIONS AND SUGGESTIONS

Conclusions

This study managed to find a model influenced by Investment RGDP, whereas, the increase in RGDP relies on an increase in investment. Based on the problem formulation, research objectives, analysis and the interpretation, conclusion can be formulated as follows.

The Increased investment is highly potential to boost the increase of RGDP. Increased investment is effective to increase RGDP which shows that the economic growth in Lampung Province is getting better.

Suggestions can be presented as follows.

1. To invent RGDP growth, the government needs to do effort to increase the value of investment by keeping the investors and granting fiscal incentives to local and foreign investors, and also by providing ` tax holiday` incentives for the industrial pioneers to encourage the flow of investment in priority sectors.

2. Investment and RGDP provide benefits for economic growth of Lampung Province on the sector and sub-sector of the economy to determine the selection of economic sectors priority for the short term according to the excellence of agribusiness sub- sector, while for medium-term and long-term need to be organized with extensive agro-industry. (derivatives).

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