The Influence of Investment and Labor on Economic Growth in South Sumatra Province

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ABSTRACT
This research aims to examine the influence of investment and labor on economic growth in South Sumatra Province. The method used in this research uses quantitative methods from cross section data from 17 districts in South Sumatra Province and time series data for 5 years from 2018-2022. Quantitative analysis is processed through the eviews program. Based on the results of the analysis, it was concluded that investment had a partial effect on the economy in South Sumatra Province. The next result was that the labor variable had no partial effect on the economy of South Sumatra Province. Simultaneously, investment and labor have a significant and positive effect on the economic growth of South Sumatra Province.

Keywords: Investment, Labor, Economic Growth

INTRODUCTION
Economic growth is a long-term increase in a country's ability to provide more economic goods to its population (Meidona et al., 2021). The ideal economy is an economy that always grows continuously, without any time experiencing a decline (Prabawati & Qurnia, 2021). Economic growth is seen from the Gross Regional Domestic Product (GRDP) in a province. Investment is an important element in boosting the economy. However, the amount of
investment does not necessarily make economic growth fast, but rather how the investment itself is managed (Setijawan et al., 2021).

According to the government, labor absorption is prioritized in its development in the agricultural and industrial sectors. The success of each sector cannot be separated from the investment of capital from within or outside the country that is injected into that sector. A workforce that has high productivity means production will increase along with the increase in worker productivity (Malau et al., 2020).

An increase in population has the consequence of an increase in the number of the workforce. A high workforce can be a demographic bonus if it is absorbed by employment opportunities, but it will also be a disaster if it is not absorbed by employment opportunities. A labor force that grows faster than the growth of employment opportunities will increase the number of unemployed. Conditions like this occurred in Indonesia during the 1998-2003 period where employment opportunities were still 4 to 4.5 percent behind labor force growth so that at the end of 2003 the unemployment rate in Indonesia was 9.5 percent (Widjajanto & Agus, 2020).

In South Sumatra Province itself, economic growth in the last five years can be seen from table 1 below:

<table>
<thead>
<tr>
<th>Year</th>
<th>Economic Growth of South Sumatra Province (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>6.01</td>
</tr>
<tr>
<td>2019</td>
<td>5.69</td>
</tr>
<tr>
<td>2020</td>
<td>-0.11</td>
</tr>
<tr>
<td>2021</td>
<td>3.58</td>
</tr>
<tr>
<td>2022</td>
<td>5.23</td>
</tr>
</tbody>
</table>

South Sumatra Province's economic growth tends to vary in percentage, even in 2020 - 0.11 due to the Covid-19 pandemic. From the above, this is the condition that makes us interested in analyzing the influence of investment and labor on economic growth in South Sumatra Province, especially in 2018-2022.

Economic Growth
Sukirno stated that the goal of the government of every country is always to hope for significant economic growth and of course it must experience an increase. Economic growth is the development of activities in the economy which causes goods and services produced in society to increase and society's prosperity to increase. Furthermore, Todaro (2006: 180) stated that the economic progress of a region shows the success of development, although it is not the only indicator of development success. (Purba, 2020).

Regional economic growth is a process of increasing regional per capita income in the long term (Dumais et al., 2022). The six characteristics of the economic growth process according to Kuznets include (PRATAMA et al., 2019):
1. High levels of growth in output per capita and population growth.
2. High rate of increase in total factor productivity.
3. High level of economic structural transformation.
4. High level of social and ideological transformation.
5. There is a tendency for countries that are starting or already developing their economies to try to add other parts of the world as marketing areas and sources of new raw materials.
6. Limited distribution of economic growth which only reaches around one third of the population.

According to Sadono, the process of economic growth is influenced by various factors, namely economic factors and non-economic factors that can influence an area, including: natural resources, human resources, capital resources and technological progress. To increase the level of economic growth, human resources and natural resources must be available and the efficiency of using production factors must be increased (Su哈尔ina, 2020). The following is a table of Gross Regional Domestic Product (GRDP) in South Sumatra Province for the last 5 years:

**Table 2. Gross Regional Domestic Product (GRDP) in South Sumatra Province**

<table>
<thead>
<tr>
<th>Year</th>
<th>Gross Regional Domestic Product per Capita Based on Current Prices (Thousand Rupiah)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>691.597</td>
</tr>
<tr>
<td>2019</td>
<td>736.207</td>
</tr>
<tr>
<td>2020</td>
<td>748.380</td>
</tr>
</tbody>
</table>
Investment

Investment is a company's capital to increase its income output in the future. In other words, in economic theory, investment means spending activities to increase production capacity in an industrial company. This means that if this investment increases, the industrial sector will also increase (Melisi et al., 2021).

Just like the previous opinion, economic theory interprets or defines investment as expenditures to purchase capital goods and production equipment with the aim of replacing and especially increasing capital goods in the economy that will be used to produce goods and services in the future. will come. In other words, investment means shopping activities to increase the production capacity of an economy (Sukirno, 2009). Investment has an important role in growth theory, so it is often called the engine of growth (Mahriza & Amar B, 2019).

Statistically, investment or expenditure to purchase capital goods and production equipment is divided into 4 components, namely: investment by private companies, expenditure to build a residence, changes in company inventory and investment made by the government. The entrepreneur's goal in realizing these means of production is to obtain profits from the production activities he carries out in the future. This role stems from three important functions of investment activities in the economy:

1. Investment is a component of aggregate expenditure, so an increase in investment will increase aggregate demand and national income.
2. The increase in capital goods as a result of investment will increase production capacity in the future and this development will stimulate an increase in national production and employment opportunities.
3. Investment is always followed by technological developments, this development will make an important contribution to increasing people's productivity and per capita income (Khakim, 2022).

Foreign Investment
Foreign Direct Investment (FDI) is a form of investment that is invested directly and operates in various fields. The flow of Foreign Direct Investment (FDI) does not include global portfolio investment in the form of shares through buying and selling on the stock exchange, bonds and other securities. Capital inflows from abroad can be divided into three, namely foreign debt, portfolio investment and foreign direct investment (FDI). Regional development is an internal part of national development, and takes place on an ongoing basis. Development aims to improve community welfare. One of the important areas is economic development (Kurniawan, 2017).

Foreign Direct Investment (FDI) has a large role in complementing domestic investment needs which will improve the quality of the economy of a country or region. Foreign Direct Investment (FDI) increases production capabilities and becomes a medium for transferring technology from abroad to within the country. In terms of production, Foreign Direct Investment (FDI) usually increases the productivity of domestic companies. The presence of foreign investment in the form of Foreign Direct Investment (FDI) can increase the competitiveness and superiority of domestic products (Jufrida, 2016). Foreign direct investment (FDI) really helps Indonesia in carrying out national development.

Increasing investment through increasing capital goods can have an impact on the economy. Foreign Direct Investment (FDI) is a long-term investment for developing countries. The arrival of foreign investment (PMA) or foreign investment can help economic development, in terms of building capital, creating jobs and with PMA increasing production in the country. Investment is a supporting factor in improving people's standard of living, if the capacity of national income increases, the ability of an economy to produce goods and services will also increase (Dewi, 2015).

Increasing economic growth cannot be separated from the role of investment, both domestic investment and foreign investment. Investment or capital investment is an activity that creates added value, by purchasing capital goods and production equipment to increase the value of goods and services available in the economy. Foreign Direct Investment (FDI) increases economic growth in two ways, namely capital accumulation and increasing the productivity of production factors through technological improvements. Increasing advanced technology and the ability to absorb human resources are determining factors for economic growth. The contribution of Foreign Direct Investment (FDI) to growth is enhanced by its
interaction with the level of human resources. (Mahriza & Amar B, 2019). The following is a table of investment in South Sumatra Province for the last 5 years:

<table>
<thead>
<tr>
<th>Year</th>
<th>Basic Investment IMB in South Sumatra Province for the last 5 years (Million Rupiah)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>31.684.211</td>
</tr>
<tr>
<td>2019</td>
<td>53.926.993</td>
</tr>
<tr>
<td>2020</td>
<td>80.691.674</td>
</tr>
<tr>
<td>2021</td>
<td>84.710.648</td>
</tr>
<tr>
<td>2022</td>
<td>565.730.950</td>
</tr>
</tbody>
</table>

South Sumatra has quite a lot of natural potential with reserves that are still unmanaged and awaiting the arrival of investors to manage them, currently several investment opportunities that are prioritized to be offered are:

**Crude Oil**

Petroleum potential in South Sumatra has reserves of 5,034,082 MSTB. Production exploitation by Pertamina and its partners during 1998-2002 only averaged 3,718,720 barrels per day.

**Natural Gas**

Natural gas reserves found in the districts of Musi Banyuasin, Lahat, Musi Rawas and Ogan Komering Ilir reached 7,238 BSCF. Exploitation production in the last 4 years has only averaged 2,247,124 MMSCF. This natural gas can be used as a material for generating electricity, plastic products and fertilizer.

**Coal**

Coal reserves in South Sumatra are 18.13 billion tons. Coal locations are in Muara Enim, Lahat, Musi Banyuasin and Musi Rawas districts. The quality of coal reserves is generally lignite with a calorific content between 4800-5400 Kcal/kg. These coal reserves have only been managed by PT Bukit Asam and PT Bukit Kendi in the Muara Enim Regency location. Meanwhile, reserves of 13.07 billion tonnes have not been managed at all.
Power Plant

The current capacity is 411,975 KW. Currently, PLN still has a deficit of approximately 90 Mega Watts. The need increases every year. It is predicted that in 2012 PLN's deficit in South Sumatra will reach 291.91 Mega Watts.

Domestic Investment in South Sumatra

Investment is the keyword that determines the rate of economic growth, because apart from encouraging an increase in output, it will automatically increase demand for input, so that in turn it will increase employment opportunities and community welfare as a consequence of increasing income received by the community (Suindyah, 2011). The level of investment in general has an influence on economic growth. A high level of investment will increase production capacity, which ultimately leads to an increase in people's income. Theory also says that an increase in investment can encourage economic growth (Amar, 2012).

Investment is the mobilization of resources to create or increase production capacity/income in the future. The picture of regional development progress cannot be separated from the distribution and allocation of investment between regions. In this regard, there is no need to separate investment from the private sector or the government, considering that the factors that determine the location of the two types of investment are not always the same. In general, investment will increase job opportunities and overcome economic and social problems such as poverty, unemployment and so on. (Mahriza & Amar B, 2019).

Labor

Based on Article 1 Number 2 of Law Number 13 of 2003 concerning Employment, this is every person who is able to do work to produce goods and services to meet their own and community needs. The definition of labor in Law no. 13 of 2003 perfects the definition of labor in Law no. 14 of 1969 concerning basic employment provisions.

Every production activity that will be carried out will definitely require labor. Labor does not only mean workers in the economy. The meaning of workforce also includes the expertise and skills they have. In terms of skills and education, workers are divided into three groups: Unskilled workers, namely workers who are uneducated or have low education and do not have expertise in a field of work. Skilled workers, namely workers who have expertise from
education or work experience. Educated workforce, namely workers who have high education and are experts in certain fields.

The problem in the employment sector is that the supply of labor does not match the qualifications demanded by the labor market, even though demand is very high (Patanduk et al., 2019). According to the Solow-Swan theory, economic growth depends on the growth of the supply of production factors (population, labor and capital accumulation) and technological progress. Population growth and labor growth are traditionally considered to be one of the positive factors that spur economic growth (Supratyioningsih & Yuliarmi, 2022).

Employment is a fundamental aspect of human life because it includes social and economic dimensions, so that one of the targets in development is directed at expanding employment opportunities and creating new jobs in balanced and adequate quantity and quality (according to Adam, 2009 in (Matdoan et al., 2020).

According to Simanjuntak (1995:75) the production factor of labor is an important production factor and needs to be taken into account in the production process, not only looking at the availability of labor but the quality and type of labor. Specialization and division of labor lead to increased productivity. Both lead to a large-scale production economy which then helps industrial development, the division of labor results in a division of the production capabilities of workers, each worker becomes more efficient than before. Ultimately production increases various things, if production increases, ultimately the rate of economic growth will also increase.

An abundance of labor can cause a decrease in wages received, even though these wages can only be used to finance a minimum standard of living. If this happens, the economy will experience stagnation or stagnation, which is known as a stationary state (Dian Prasasti, 2022).

According to BPS, the population aged 15 years and over is divided into the labor force and non-labor force. The workforce is said to be working if they do work with the intention of obtaining or helping to obtain income or profit and the duration of work is at least 1 (one) hour continuously during the past week. The number of workers employed is a reflection of the conditions of available employment. The greater the available employment opportunities, the greater the increase in total production in an area. (Budihardjo et al., 2020)

The following is a table of labor in South Sumatra province for the last five years:
Table 4. Working Population in South Sumatra Province in the last 5 years

<table>
<thead>
<tr>
<th>Year</th>
<th>Workers in South Sumatra Province in the last 5 years (people)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>4.012.611</td>
</tr>
<tr>
<td>2019</td>
<td>3.968.499</td>
</tr>
<tr>
<td>2020</td>
<td>4.091.383</td>
</tr>
<tr>
<td>2021</td>
<td>4.170.971</td>
</tr>
<tr>
<td>2022</td>
<td>4.289.704</td>
</tr>
</tbody>
</table>

(BPS Sumsel, 2023)

METHOD

The research carried out was descriptive and associative research with a quantitative approach. This means that this research aims to test hypotheses and interpret each research variable using statistical analysis. This research was carried out in South Sumatra using cross section data from 17 districts/cities in South Sumatra Province and time series data from 2018 to 2022. This research aims to find out how much influence economic variables have in increasing economic growth in South Sumatra Province.

The method used to analyze the data in this research is a quantitative method using the multiple linear regression method, as a hypothesis testing tool using the Eviews program. This is intended to see the influence of the independent variable on the dependent variable, so a multiple linear regression equation is used. Regression aims to test the influence relationship between one variable and other variables. In accordance with the research objective, namely to determine the effect of the independent variables, namely Investment (X1) and Labor (X2), on the dependent variable, namely the economic growth of South Sumatra (Y). GRDP = α +β1 Investment + β2 Labor. Where α is a constant, β1 β2 is the
regression coefficient of variables X1 and X2. X1 is investment and X2 is labor. Meanwhile, GRDP is the economic growth of South Sumatra.

DISCUSSION

Data Analysis Results

Chow Test

Based on the results of data processing in Figure 1 above, the probability value is 0.000. Next, a comparison was carried out where a probability value of 0.000 <0.05 was obtained. Thus, it can be concluded that the model chosen is FEM (fixed effect model).

Hausman Test

Based on the results of data processing in Figure 2 above, the probability value is 0.0089. Next, a comparison was carried out where a probability value of 0.0089 <0.05 was obtained. Thus, it can be concluded that the model chosen is FEM (fixed effect model).
Figure 3. Lagrange Multiplier Test Results

Based on the results of data processing in Figure 3 above, the Breusch-Pagan value is 0.0000. Next, a comparison was carried out where the Breusch-Pagan value was obtained at 0.0000 <0.05. Thus, it can be concluded that the selected model is REM (random effect model).

Classic Assumption Test

a. Normality Test

Based on Figure 4 of the eviews output, it is known that the probability value is 0.167011 > 0.05, so according to the basis for decision making in the normality test it can be concluded that the data is normally distributed. In this way, the normality assumptions or requirements in the modal regression are met.

Figure 4. Normality Test Results

b. Multicollinearity Test

Table 5. multicollinearity test results

<table>
<thead>
<tr>
<th></th>
<th>X1</th>
<th>X2</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1</td>
<td>1.000000</td>
<td>0.297769</td>
</tr>
<tr>
<td>X2</td>
<td>0.297769</td>
<td>1.000000</td>
</tr>
</tbody>
</table>
Based on the eviews output table 5, it is known that the correlation value of the independent variable is 0.297769 < 0.80, so referring to the basis for decision making in the multicollinearity test, it can be concluded that there are no symptoms of multicollinearity.

**Multiple Regression Analysis**

The independent variables used in this analysis are investment (X1) and labor (X2). Meanwhile the dependent variable is the economic growth variable, namely GDP (Y). Regression analysis uses the enter method. No variables are dropped. In this research, multiple regression analysis was carried out to analyze the relationship between the independent variables and the dependent variable. This analysis was carried out using the eviews program, resulting in the following results:

![Eviews Output Results](Figure 5. Eviews Output Results)

Based on the results of the eviews output in Figure 5, it can be concluded:

\[ Y = -268382.6 + 29129.02 + (-83.12089) \]

From the regression above, the research results can be interpreted:

- The constant coefficient value is -268382.6, meaning that if the investment and labor variables are considered constant then the GRDP will be -268382.6
- The investment coefficient value is 29129.02, meaning that if investment increases by 1 rupiah, GRDP will increase by 29129.02 assuming other variables remain constant.
- The labor coefficient value is -83.12089, meaning that if labor increases by 1 person, GRDP will be -83.12089.

Based on the results of the eviews output in Figure 5 above, it can be explained that the correlation coefficient (R) of 0.984035 is included in the category of a very strong
relationship where the range is 0.80-1.00 which shows that the correlation between investment and labor variables on growth South Sumatra Province's economy is 98% and the remaining 2% is influenced by other variables not included in this research.

**Hypothesis Test Results**

**t Test**

A variable will have a significant influence if the calculated $t_{value} > t_{table}$. With an alpha value of 0.05, and $Df = n-k = 85-2 = 83$, the $t_{table}$ value is 1.663. Based on the eviews output table in Figure 5 above, it is known that the probability value for the investment variable (X1) is 0.0000 < 0.05, so it can be concluded that the first hypothesis is accepted, meaning that there is an influence of investment (X1) on economic growth (Y). And it is known that the calculated $t_{value}$ of the investment variable is 27.01837. Because the calculated $t_{value} > t_{table}$ 1.663. So it can be concluded that $H_1$ (first hypothesis) is accepted, meaning that there is an influence of investment (X1) on economic growth (Y).

Based on the eviews output table in Figure 5 above, it is known that the probability value for the labor variable (X2) is 0.9081 > 0.05, so it can be concluded that the second hypothesis is rejected, meaning that there is no influence of labor (X2) on economic growth (Y). And it is known that the calculated $t_{value}$ of the labor variable is -0.118140. Because the calculated $t_{value} < t_{table}$ 1.663. So it can be concluded that $H_2$ (second hypothesis) is rejected, meaning that there is no influence of labor (X2) on economic growth (Y).

**F Test**

The value of $df_1 = k-1 = 2-1 = 1$ and $df_2 = n-k = 85-2 = 83$, with an $F_{table}$ result of 3.96. Based on Figure 5 above, it shows that the investment and labor variables have a calculated $F$ value of 401.6504 with a significance level of 0.000. Because the calculated $F_{value} > F_{table}$ is 401.6504 > 3.96 with a significance value of 0.000 which is smaller than < 0.05, it can be stated that the investment and labor variables together have a positive and significant
influence on the economic growth of Sumatra Province South. Thus H₃ (third hypothesis) in this research can be accepted.

CONCLUSION

From the results of data processing and discussion of the research results between the independent variable and the dependent variable as explained, the following conclusions can be drawn. The results of testing the first hypothesis explain that partially there is a significant influence between investment on the economic growth of South Sumatra. The results of testing the second hypothesis explain that partially there is no significant influence between labor on the economic growth of South Sumatra. The results of the third hypothesis explain that investment and labor simultaneously have a positive and significant influence on the economic growth of South Sumatra Province.

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