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The Impact of Investment and Government Spending on the Unemployment Rate

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Abstract:- Unemployment is a very complex problem because it affects and is influenced by several factors that interact with each other, following a pattern that is not always easy to understand, and until now, the government has not been able to overcome. The research was conducted to observe and analyze the dominant factors affecting the ratio of the unemployment rate in terms of investment level variables and government spending. The research method with quantitative data using secondary data is obtained from macroeconomic data from the Indonesian government for 2003 – 2018, including data on government investment level, data on government spending levels, and data on unemployment rates. Hypothesis testing in this study was carried out using the panel data regression analysis method, which examines the relationship between one variable's effects on another using the IBM SPSS 22 program. The analysis shows that the level of government spending significantly affects the ratio of the unemployment rate. The high investment value will create new jobs, which will indirectly reduce the unemployment rate. Many open unemployment rates have broad social implications because those who do not work have no income. However, this will be maximally achieved if the government can manage the investment optimally.

Keywords:- *Economic Development; Development Disparity; Economic Growth; Macroeconomic.*

I. INTRODUCTION

Inequality refers to the standard of living relative to all communities due to disparities between regions, namely differences in the endowment factor. This difference makes the development level in different regions and regions different, causing a gap or gap in these regions' welfare. According to [1], regional inequality occurs due to the large effect of the backwash effect compared to the spread effect in underdeveloped countries. Transfer of capital will increase regional inequality; increasing demand to developed regions will stimulate investment, which in turn increases income, which leads to the second round of investment. Better investment scope in development centers can create a scarcity of capital in underdeveloped areas [2].

According to [3], some factors influence inequality between regions, namely differences in natural resources, demographic factors including labor conditions, allocation of development funds between regions, government investment and private investment, and the concentration of regional economic activities, and mobility of goods and services. The existence of these differences causes a region's ability to promote the development process to be different. Therefore, it is an underdeveloped region. The research results [4]regarding income inequality in China show that income inequality will become a severe problem that can threaten social stability and the sustainability of economic development when the average level of income per capita increases rapidly.

As a country's economy develops, the problems that occur in that country will become increasingly complex. A country will never be free from various kinds of problems related to its citizens, especially in countries with a high population like Indonesia. There are economic problems that are not common in Indonesia, such as unemployment, government spending, economic growth, foreign investment, labor, and inflation. The disparity of economic development between regions is a universal phenomenon in all countries regardless of the size and level of development. Development disparity is a severe gap problem in both the market economy and the planned economy. The development process on a national scale has caused considerable and complex development problems because the development approach emphasizes macroeconomic growth and tends to ignore the gaps in economic development between regions.

In Indonesia itself, government policies to address income inequality problems can be pursued through several strategic steps such as improving public services, strengthening social protection aspects [5], training for workers, providing employment opportunities, and increasing public awareness through tax collection [6]. According to [5], using the Equilibrium Theory approach explained that socioeconomic status differences impact welfare. However, there is a gap in the results of different studies put forward by [7], which state that the Gini ratio and total income per capita do not significantly impact income inequality.

Measurement of income inequality is closely related to the potential economic growth of a region [8]. Many researchers have studied the causality relationship between the two with various research perspectives such as [9], [10], with the Kuznets Theory approach, which states that reducing income inequality can be pursued by the government through government policies that are comprehensively tested. In line with that [11], [12], with an inequality theory approach with a more in-depth comparative study approach, it is stated that in addition to government policies, the constitutional structure and patterns of government also contribute significantly to decreasing or increasing trends in income inequality. In terms of government policies, considering the dominant source of state revenue comes from tax and non-tax revenues. Policies pursued through improving the investment climate of the business world, including providing incentives and optimizing economic potential and tax reform measures, one of which is the application of tax amnesty, Automatic Exchange of Information (AEol), which aims to increase the tax base to prevent tax avoidance practices and tax erosion. Compliance with taxpayers, tax holidays, tax data and information systems, and improving services and organizational effectiveness in the scope of taxation. Other pursued policies are also improving regulations, increasing management and management, optimizing tax and non-tax revenues, and improving public services [13]. Apart from that, policies in government expenditure that aim to support government administration are pursued through government administration policies to maintain government officials' welfare and the effectiveness of the bureaucracy. Risk anticipation related to government expenditure policies is also allocated to anticipate economic uncertainty through support for fiscal risk reserves and disaster mitigation.

Unemployment is a complex problem because it affects and is influenced by several factors that interact with each other, following a not always easy to understand. It has not been able to be overcome by national governments in general and local governments. The size of the open unemployment rate has broad social implications because those who are not working mean they have no income. The loss of resources opens opportunities for people to have difficulty meeting basic needs, which ultimately leads them to the brink of poverty. The problem is more complicated because the higher the open unemployment rate, the greater the potential for social insecurity that it may cause, for example, to cause insecurity of various criminals and social, political, poverty, and extravagant waste.

Investment is an indicator that is vital enough to determine whether national economic development will continue to increase in the future or not so that various kinds of policies issued by the government can help investors and potential investors. Investment in Indonesia is regulated in various government regulations such as Law No. 25 of 2007, Law No. 37 of 1999, Government Regulation no. 8 of 2007 concerning government investment, Law no. 1 of 2004, the Basic Law where Government Investment is the placement of several funds and goods by the central government in the long term for investment in the purchase of securities and direct investment, which can return the principal value plus economic, social, and benefits other within a certain period [14]. Types of government investment are regulated in article 3 paragraph (2) where investment is made in the form of securities or direct investment, and government investment includes the development of public services, development of service access and financing for community business activities, business development of State-Owned Enterprises and other business development. In order to increase economic benefits for the government. The dominant form of investment in infrastructure development and the development of micro, small, and medium enterprises. As previously explained, government investment spending on infrastructure has spent a budget of 410.4 trillion rupiahs. The utilization of investment potential through infrastructure development and development has succeeded in providing benefits in terms of increasing economic growth up to 2018.

The problem of unemployment will have a universal impact on improving the quality of life; this can also intersect with economic growth and even a country. This causality is closely related, considering that labor is one of the fundamental aspects of classical economic production (man, capital, and land). The main problem of unemployment is indicated by adequate education to shape the demand for skilled workers in the labor market [15]. An essential aspect of the issue of government policy requires the aspect of education as one of the significant investments to welcome skilled workers to reduce unemployment and overcome income inequality [16]. This opinion is in line with the fact that it is currently happening where the Indonesian Central Bureau of Statistics released an unemployment rate of 7 million people and is dominated by high school graduates [17]. Apart from that, the main thing caused by the high level of unemployment also causes the income received to below, and people's consumption (autonomous consumption) is also low [5], [18]. Government policy in terms of investment in the sector of expanding employment opportunities is a tough job that requires the participation of many parties.

Apart from that, the distribution of the highest unemployment rate according to the province released by the Central Statistics Agency recorded that there were 131.55 million people in the workforce, of which 124.54 million had worked. The remaining 7.01 million people are unemployed. Open unemployment is a group that falls into the labor force category but does not have a job yet. Nationally, the open unemployment rate reached 5.33 percent or decreased by 0.28 percent from 2016.

Then, government spending is essential because it involves the output produced to benefit many people's lives. If the government has established a policy to purchase goods and services, government spending reflects the costs incurred to implement the policy. Expenditures made by the government demonstrate its role in the economy in order to achieve a prosperous society. The government has four roles namely: The role of allocation, namely the role of the government in allocating existing economic resources so that their utilization can be optimal and supporting production efficiency, Distributive role, namely the role of the government in distributing resources, opportunities, and economic results fairly and equitably, Stabilities role, namely the role of the government in maintaining economic stability and restoring in equilibrium, and the dynamic role, namely the role of the government in driving the economic development process to grow, develop and advance faster.

Every country, especially developing countries, is experiencing the same problem: the difficulty of controlling the increase in unemployment. In recent decades, the situation in developing countries shows that the development that has been implemented cannot provide employment opportunities to the existing generation. This is because the labor force's growth rate is higher than the growth of existing employment opportunities. High unemployment is included in economic and social problems. As the unemployment rate rises, as a result, a country throws away goods and services that can be produced by the unemployed. Unemployment is also a huge social problem because it causes great suffering for unemployed workers who struggle with reduced incomes. The economic cost of unemployment is obviously huge, but no amount of currency can reveal exactly about psychological and human victims when they are unemployed. Open unemployment usually occurs in younger generations who have just completed secondary and higher education. There is a tendency for those who have just finished their education to find work according to their aspirations. Their aspirations are usually working in the modern sector or the office. To get that job, they were willing to wait a while. It does not close the possibility of them trying to find work in cities, provinces, or areas where industrial activity has grown. This causes the open unemployment rate to tend to be high in the city or area. The theory says that the unemployment rate is also influenced by inflation, fiscal policy (government spending and taxes), and monetary policy (interest rate and money supply) set by the government in regulating the pace of economic growth.

II. RESEARCH METHOD

A. Research Approach

This research uses a quantitative approach, namely, research that emphasizes its numerical data analysis (numbers) processed with statistical methods. Basically, quantitative approaches are carried out on inferential research (to test hypotheses) and rely on the results' conclusions on a probability of error of rejection of the zero hypotheses. With quantitative methods will be obtained, the significance of group differences or the significance of relationships between variables studied. In general, quantitative research is a large sample of research. The type of research used is comparative research, namely comparison.This research is designed to develop an empirical research model through direct or indirect relationships of each variable, such as investment, government spending, and Indonesia's unemployment rate through quantitative research.

B. Research Model

The operational definition of each research variable be follows:

a. Government investment is the placement of several funds and goods by the government long term, which is meant by government investment is everything related to investment refers to the definition of the Central Statistics Agency is:
1) Realization of domestic investment;
2) Realization of foreign investment.

b. Government spending refers to the definition of the Central Statistics Agency is
1) Expenditures that explain the central government expenditure consisting of:
- Spending on ministries and institutions;
- Non-Ministry and Institution Expenditure;
- Expenditure for areas consisting of 1) Transfer to the region; 2) Balance fund consisting of money share fund, general allocation fund, special allocation fund, non-physical special allocation fund; 3) Regional incentive fund; 4) Special autonomy fund and privilege fund; 5) Village Fund.

c. Unemployment is a labor force that has not had a chance to work but is looking for a job or not looking for work because they feel it is impossible to get a job. The measurement of unemployment variables in Indonesia is based on ratio data obtained from the Central Statistics Agency and the Republic of Indonesia's National Planning Agency.

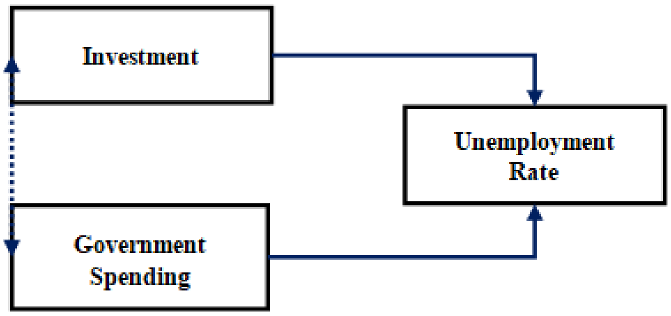

Figure1. Research Model (Relationship between Investment and Government Spending on Unemployment Rate)

C. Data Research

Research data is a collection of information in the form of facts or information materials. The purpose of this research is to gain knowledge that can answer questions or solve problems. All types of data are quantitative, and the data source used is secondary data. Secondary data is the source of data obtained by researchers indirectly through intermediary media (obtained and recorded by other parties), and its use in this study has been regulated and processed by the author.

The type of data used in this research is quantitative data. Secondary data or second-hand data is data obtained from other parties, not directly obtained by researchers from the subject of his research. This data is usually in the form of documentation data or report data that has previously been available. This study takes data from documentation, reports, articles, and other information related to this research. This study's data sources are: Secondary data in this study was obtained from the Indonesian government's macroeconomic data from 2003 - 2018, which includes data on government investment development, government spending level data, economic growth data, unemployment rate data.

Various data sources are taken through Indonesian statistics involving several supporting data such as Indonesian government investment data, government spending, economic growth, unemployment, and income inequality in Indonesia. The data used in this study was obtained from macroeconomic data from 2003 to 2018 obtained from the Central Statistics Agency and the National Planning Agency of the Republic of Indonesia.

D. Data Analysis

Hypothetical testing in this study was conducted using the panel data regression analysis method to test the relationship of influence between one variable against another variable. Affected variables are called endogenous variables while affecting variables are called exogenous variables. The coefficient calculation process in this study was approached through a regression analysis with standardized regression. The program used to process data is IBM SPSS 22.

III. RESULT AND DISCUSSION

A. Coefficient of Determination

The coefficient of determination (R^2) is used to measure how well the line matches its actual data (goodness of fit). This coefficient of determination measures the total percentage of dependent variable variations described by independent variables within the model [19].

Table 1. Standardized Coefficients

R	R Square	Adjusted R Square
0.766	0.587	0.443

a. Predictors: (Constant), investment, government spending
b. Dependent Variable: unemployment rate

From the table above obtained coefficient of determination or R Square of 0.766 which means 76.60% variable bound that is unemployment rate can be explained by variable free investment and government expenditure and the amount of influence of other variables that affect outside this research is 100% - 76.60% = 23.40%.

Table 2. Standardized Coefficients

Model	Estimate	t-value	Sig.
Investment	0.385	2.577	0.004
Government Spending	0.427	3.141	0.000

a. Dependent Variable: Unemployment Rate

B. Hypothesis Testing

- Hypothesis 1

H_0: There is no impact between Investment and Unemployment Rate
H_1: There is an impact between Investment and Unemployment Rate
Decision Making:
H_0 is rejected and H_1 is accepted if the sig value. < value of 0.05 or t-value > 2.56 (t-table)
H_0 is accepted and H_1 is rejected if the sig value. > value of 0.05 or t-value < 2.56 (t-table)

Based on the test table above can be seen in sig value obtained by 0.004 is less than 0.05 and the t-value (2,577) obtained is higher than 2.56 (t-table), then H_0 is rejected, and H_1 is accepted. Thus, it can be concluded that government investment has a significant effect on the unemployment rate. Based on the positive value of 0.385 obtained, the higher the government investment level, the lower the unemployment rate.

- Hypothesis 2

H_0: There is no impact between Government Spending on the Unemployment Rate
H_1: There is an impact between Government Spending on the Unemployment Rate
Decision Making:
H_0 is rejected and H_1 is accepted if the sig value. < value of 0.05 or t-value > 2.56 (t-table)
H_0 is accepted and H_1 is rejected if the sig value. > value of 0.05 or t-value < 2.56 (t-table)

Based on the test table above can be seen sig value obtained by 0.000 is less than 0.05, and the t-value (3.141) obtained is higher than 2.56 (t-table), then H_0 is rejected, and H_1 is accepted. Thus, it can be concluded that Government Spending has a significant effect on the unemployment rate. Based on the positive value of 0.427 obtained, the higher the level of Government Expenditure, the lower the unemployment rate.

In talking about unemployment, what has always been considered is not about the number of unemployed—the unemployment rate expressed as a percentage of the labor force. The definition of the open unemployment rate is the percentage of the population who are looking for work, who are preparing for businesses, which are not looking for work because they feel that they are unable to get a job, who already have a job but have not started working from several the existing workforce.

A study from [20], entitled Analysis of the hysteresis of unemployment in Mexico in the face of macroeconomic shocks, states that the monetary level has a positive and significant effect on labor market availability. Besides, investment also gives essential meaning to opportunities to create labor market availability. Investment & Monetary levels have a positive and significant effect on exports. In his study [20], exports have an indirect impact on the long-run unemployment rate. It is evident in the studies of [18], [21],

[22], and [23]that investment and GDP, as well as consumption and investment costs, will affect productivity. The domino effect created from the increase in productivity is directly proportional to the unemployment rate decrease [24]. However, a different opinion is shown by studies from [25], [26], [27], which state that investment does not have a significant effect on labor absorption to reduce unemployment. The solution offered in the study [23]states that government regulation through the investment that is pro to the productive labor market in each region will play an important role to be considered carefully. The research conducted by [28][21] explains that the effectiveness and efficiency of government spending has a positive and significant effect on reducing the unemployment rate through effective allocation of funds. On the other hand, the poverty factor will increase the potential for psychological distress and the level of unemployment to meet the needs of the community and cause people to be trapped in poverty [29].

One of Harrod and Domar's theories explain that investing activities are considered an essential factor in two roles to influence the economy. The first one we discussed a little bit above is that investment positively relates to state income. Therefore, the easier the investment process, the more investment activities, and the higher the income a country can generate [30], [31]. Both investments can increase the production capacity of the economy by increasing the capital stock. This capital formation can be considered an expense that can increase the demand for the whole community's needs. Therefore, these two things prove that this investment can affect demand and affect supply. However, in the long run, investment can also affect aggregate demand and affect aggregate supply through production capacity changes.

On the other hand, in the empirical evidence in several studies, there are different results shown by several studies such as those suggested by [26], [27], [32], which state that investment does not have an impact on economic growth. The existence of differences in the results of studies suggested by several studies is mediated by differences in government decision-making processes in government policies in covering investment, so it can be stated that policies do play a vital role in supporting a conducive and adequate investment climate [33].

Therefore, the increase in investment is believed to contribute significantly to the economic development of a country. Besides, investment also has a role as a component of national income, Gross Domestic Product. This investment will be related to the Gross Domestic Product and national income; if the investment increases, the Gross Domestic Product will also increase, and vice versa. This is also in line with the results of research from [18], [20], [23], [32], which state that investment is the primary basis for driving a country's economic growth [34]–[36].

Theoretical exposure and disclosure of real phenomena regarding the linkage of investment and government spending related to economic growth to address unemployment and income inequality. Giving birth to main ideas related to the variety of suitability and inconsistencies between theory, facts, and empirical test results to bridge the results of previous research and our research today. Research results from [25], [33], [37]conducted in Macedonia concluded that there is no correlation between economic growth and the unemployment ratio. Other studies that are considered to have limitations in disclosing and testing variables in measuring the unemployment rate are also shown from the results of research [26], [27], [32]where both of them state that foreign investment does not affect reducing the unemployment rate.

Government spending itself is a tool for government intervention in the economy that is considered the most effective. So far, the level of government spending effectiveness can be measured by how much economic growth is. The success of development in an area is determined by government spending and the amount of investment. Investment is one of the pillars of economic growth. Investment can be a starting point for the success and sustainability of development because it can absorb workers to open new job opportunities for the community, which will have an impact on increasing people's income.

IV. CONCLUSION

The role of government is needed in regulating the economy. One of the government's roles in regulating the economy is implementing the fiscal policy by allocating government expenditure to build facilities and infrastructure needed by the community. Government spending is a tool for government intervention in the economy that is considered the most effective. The level of effectiveness of government spending can be measured by how much economic growth can be achieved. This is because government spending is more closely related to the regional revenue and expenditure budget, which will directly affect regional revenues and regional financing to affect economic growth directly.

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