

## **Economic Growth and Unemployment against Poverty**

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**Abstract:** Poverty can be identified with the level of prosperity of a society, be it in rural or urban areas. Although Indonesia's East Java in the first rank economic growth in 2016, however, ranks third in East Java poverty level. In certain years, despite increased economic growth and poverty but the unemployment rate also increased. This study uses secondary data obtained from the central statistical agency and through the internet to complete the data the analysis method used in this study is a multiple linear regression with the help of Eviews software. The results showed that the variables of economic growth and unemployment have a significant impact on poverty through the variable t test results with the results of the economic growth variable has a probability of 0.0057 and a variable rate of open unemployment has a probability of 0.0002. The coefficient of determination ( $R^2$ ) of 0.863, this means that the variation of 73.7 percent poverty in East Java can be explained by variations in two independent variables namely economic growth and unemployment. While the remaining 26.3 percent is explained by other variables not mentioned in the research model

**Keywords:** poverty, economic growth, unemployment rate.

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### **I. Preliminary**

Economic development is a process of increasing total income and per capita income by taking into account the increase in population and accompanied by fundamental changes in the economic structure of a country and equal distribution of income for the population of a country.

economic development is more qualitative, not only increasing production, but also to improve the standard of living of community welfare, which can be measured through the Human Development Index (HDI). The HDI explains how residents can access the results of development in gaining income, health, education and so on. There are several factors that influence economic development, but in essence these factors can be grouped into two, namely economic factors and non-economic factors.

The poverty rate in developing countries is still widely found and striking, one of which is in the country of Indonesia which is a developing country. The role of the government is very important in influencing changes in the level of poverty in each year through the policies taken so as to improve the welfare of the local people. According to sources from [www.bps.go.id](http://www.bps.go.id), the level of community welfare in East Java declined in 2009 to 2010.

### **Poverty**

According to BPS (2010) Poverty occurs because of the inability of the population to fulfill their basic needs and measure their expenditure below the poverty line. In absolute terms the number of poor people will give an idea of how many people are experiencing marginalized development.

Poor people are residents who have an average monthly per capita expenditure below the poverty line. According to BPS (2010), the percentage of the poor population or head count index (HCI-P0), is the percentage of the population below the poverty line (GK). Through the main data sources used are data from the National Socio-Economic Survey (Susenas) Panel for Consumption and Cor.

To measure poverty, BPS uses the concept of the ability to fulfill basic needs (basic needs approach), namely poverty is seen as an economic inability to fulfill basic food and non-food needs measured from the expenditure side. So Poor People are residents who have an average per capita expenditure per month below the poverty line. With the calculation formula as follows:

$$P_{\alpha} = \frac{1}{n} \sum_{i=1}^q \left[ \frac{z - y_i}{z} \right]^{\alpha}$$

- a = 0
- z = poverty line.
- y<sub>i</sub> = Average monthly per capita expenditure of people below the poverty line (i = 1, 2, 3, ....., q), y<sub>i</sub> < z
- Q = Number of people below the poverty line.
- N = population.

According to Ragnar Nurske, a well-known development economist in 1953 who was famous for the vicious cycle of poverty. the important issue in the circle of poverty is all circumstances that create barriers to the formation of high capital. Where, on the one hand the formation of capital is determined by the level of savings, and on the other hand by incentives to invest. These two factors in developing countries do not allow for the formation of high capital. So according to Nurske, there are two types of poverty circles that prevent developing countries from achieving rapid levels of development, namely from the supply side of capital and demand for capital.

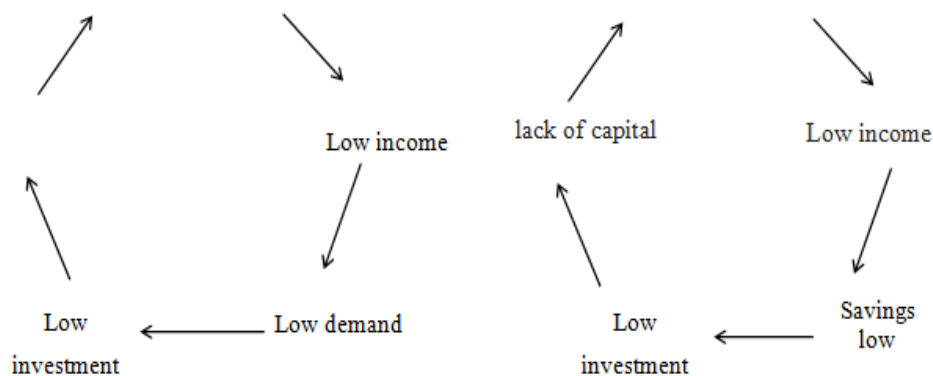


Figure1. circle of poverty (source: Jhingan, 2010)

The measure of poverty according to Nurkse (1953) in a simple and commonly used manner can be divided into three, namely:

**1. Absolute poverty**

Someone belongs to the absolute poor if the income is below the poverty line and is not enough to determine the basic needs of his life. This concept is intended to determine the minimum level of income that is sufficient to meet the physical needs of food, clothing and housing to ensure survival. The main difficulty in the concept of absolute poverty is determining the composition and level of minimum needs because these two things are not only influenced by customs, but also climate, the level of progress of a country, and other economic factors. Even so to be able to live a decent life, someone needs goods and services to meet their physical and social needs.

**2. Relative poverty**

Someone belongs to the relative poor if they have been able to fulfill their basic needs, but are still far lower than the condition of the surrounding community. Based on this concept, the poverty line will change if the lives of people change so that the concept of poverty is dynamic or will always exist. Therefore, poverty can be from the aspect of social inequality which means that the greater the imbalance between the upper and lower classes of livelihood, the greater the number of people who can be categorized as always poor.

**3. Cultural Poverty**

Someone belongs to the cultural poor if the attitude of the person or group of people does not want to try to improve their level of life even if there is an effort from another party that helps him or in other words someone is poor because of his own attitude that is lazy and does not want to improve his condition

### **Economic growth**

According to Murni (2006), economic growth is a condition of the development of potential GNP that reflects the growth of per capita output and the increase in people's living standards.

According to Kuznet, growth and poverty have a very strong correlation, because in the early stages of the development process poverty levels tended to increase and at the end of the final stage of development the number of poor people gradually decreased (Tambunan, 2008).

According to BPS (2010), How to present Gross Regional Domestic Products is arranged in two forms, namely:

#### **1. Gross Regional Domestic Product at constant prices (ADHK)**

Definition of Gross Regional Domestic Product at a constant price, namely the amount of production value or expenditure or income calculated according to a fixed price. By way of reassessing or defining based on prices at the basic level using the consumer price index. This calculation reflects the actual level of economic activity through its real Gross Regional Domestic Product.

#### **2. Gross Regional Domestic Product at current prices (ADHB).**

The definition of Gross Regional Domestic Product at current prices according to BPS is the amount of gross added value arising from all economic sectors in a region. What is meant by added value is a value added to goods and services used by the production unit in the production process as an intermediate input. This added value is equal to the remuneration for participating in the production factor in the production process.

According to BPS (2010), the indicator commonly used to measure the economic growth of a region is Gross Regional Domestic Product (GRDP). Definition of GRDP is the total value added of goods and services produced in a certain region (region) in a certain time without looking at the ownership factor. The economic growth of a region is obtained from the increase in GRDP on the basis of constant prices of a year against the previous year which reflects the increase in the production of goods and services in a region.

To be more clear in calculating the numbers of the Gross Regional Domestic Product Tarigan (2005), there are three approaches that are quite often used in conducting a study, namely through:

##### **1. According to the Production approach**

In the production approach, Gross Regional Domestic Product is to calculate the added value of goods and services produced by an economic activity in the area minus costs between each gross total production of each sub-sector or sector activity in a certain period of time. Added value is the difference between the value of production and the value of intermediate costs, namely raw or auxiliary materials from outside used in the production process.

##### **2. According to the income approach**

In the income approach, the added value of each economic activity is estimated by summing all remuneration received by production factors, namely wages and salaries and business surplus, depreciation, and net indirect tax. In the government and business sectors that are not profitable, the business surplus is not taken into account. The business surplus includes interest paid net, land rent and profits. The income approach method is widely used in the service sector but is not paid at market prices, for example the government sector. This is due to incomplete data and the absence of accurate methods that can be used to measure the value of production and costs between various service activities, especially activities that do not cite costs.

##### **3. According to the expenditure approach**

The approach in terms of expenditure is to add the value of the end use of goods and services produced domestically. When viewed in terms of usage, the total supply / production of goods and services is used for household consumption, consumption of private institutions that do not profit, government consumption, gross fixed capital formation (investment), changes in net stock and exports.

According to Samuelson (2001) economic growth is GNP growth which comes from the following things:

1. Growth in labor
2. Growth in capital
3. Growth of innovation and technology.

### **Unemployment**

According to BPS (2010), the definition of unemployed during the 1986-2000 national labor force (sakernas) survey, stated that unemployed were those who did not have jobs, were willing to work and were looking for work. But since 2001 until now the definition of unemployed has become those who are looking for

work or are preparing a business, are accepted for work but have not started work, and are not looking for work because they feel that they cannot find work.

The unemployment classification can be grouped into two, namely:

- a) Unemployed, ie residents who work less than normal hours (in this case 35 hours) in a week, not including those who are temporarily employed
- b) Open unemployment, a comparison between the number of unemployed people and the number of workforce

The indicator commonly used to measure the level of open unemployment (TPT) is a comparison between the number of unemployed people with the number of workforce which is usually expressed in percent. Systematically where TPT can be calculated as follows:

$$TPT = \frac{\text{Number of unemployed people}}{\text{Labor Force Amount}} \times 100 \%$$

According to Sukirno (2003), the classification of types of unemployment is as follows:

1. Types of Unemployment Based on the Cause:

**a. Normal or frictional unemployment**

Unemployment applies at the level of full employment. Full employment is a situation where around 95 percent of the workforce at one time is fully employed. Unemployment as much as 5 percent is called natural unemployment. The unemployed are not because they don't get a job, but because they are looking for work that is better or more in accordance with their wishes.

**b. Structural Unemployment**

Structural unemployment is unemployment caused by structural changes in the economy.

**c. Unemployment Conjunctions**

Unemployment caused by excess natural unemployment and applies as a result of a reduction in aggregate demand. The decrease in aggregate demand resulted in companies reducing the number of workers or out of business, resulting in unemployment conjuncture.

**d. Technology unemployment**

Unemployment caused by engine use and other technological advancements.

2. Types of Unemployment Based on Characteristics:

a. Open unemployment

Unemployment is created as a result of the increase in employment opportunities that are lower than the growth of labor, consequently many workers do not get jobs. According to the Central Statistics Agency (BPS), open unemployment is a population who has been in the workforce but has no job and is looking for work, preparing a business, and already has a job but has not started work.

b. Hidden Unemployment

Circumstances where a type of economic activity is carried out by workers whose numbers exceed more than necessary.

c. Seasonal Unemployment

Unemployment at certain times of the year. This unemployment usually occurs in the agricultural sector. Farmers will be unemployed while waiting for the planting period and during the interval between the planting season and the harvest season.

d. Unemployed Half

The situation where someone works under normal working hours. According to the Central Statistics Agency (BPS), in Indonesia normal working hours are 35 hours a week, so workers who work under 35 hours a week are in the underemployed group.

The theory of inflation that was promoted by Phillips by using the Phillips curve explained the inverse relationship between the unemployment rate and the nominal wage increase. The wage rate decreases along with the increase in unemployment. In other words, in other words, there is a trade-off between the policy of reducing inflation and policy to reduce the unemployment rate.

Todaro (2003), Unemployment has a very close relationship in influencing poverty. Low living standards are manifested qualitatively and quantitatively in the form of low income levels, inadequate housing,

poor health, minimal education or even none at all, high infant mortality rates, relatively very high life expectancy short and opportunities for low employment. In terms of opportunities to get low employment means unemployment. High unemployment will cause income to decrease so that it cannot meet daily needs which will eventually experience poverty, with the number of unemployed having a positive relationship to poverty.

## II. Research Methods

The research design is done by the quantitative approach with the aim to test the hypothesis and to know the significance of the influence of the variables: the positive relationship between teacher competence with student learning outcomes at the Junior High School of Nurul Islam Lumajang East Java. The technique used in sampling in this research is by random sampling method (Suharsimi Arikunto 2002: 134). In this study, the criteria of respondents are limited only to teachers and students of class IX.

The data used in this study is divided into two, namely primary data and secondary data. The primary data, namely data obtained directly from the respondents ie students through questionnaires or teacher competence questionnaires filled by students (the point of view of students when teachers teach in the class). While secondary data, that is data obtained from library study or other sources, here use data from School Exam Score and information from First Junior High School Nurul Islam Lumajang East Java. Data analysis technique used in this research use correlation formula. Correlation is a calculation to find the relationship between two interrelated variables. The formula is as follows:

$$r_{xy} = \frac{\sum XY}{\sqrt{(\sum X^2)(\sum Y^2)}}$$

Information:

- $r_{xy}$  = A Coefficient of correlation between X and Y
- $\sum XY$  = Number of product moment of X and Y
- $\sum X$  = Student questionnaire variable is teacher professional competence
- $\sum Y$  = Student learning result variable

## III. Results And Discussion

### Research result

In this study to prove the hypothesis, a quantitative approach was used to see the effect of the independent variables included in the model on dependent variables so that they would conclude.

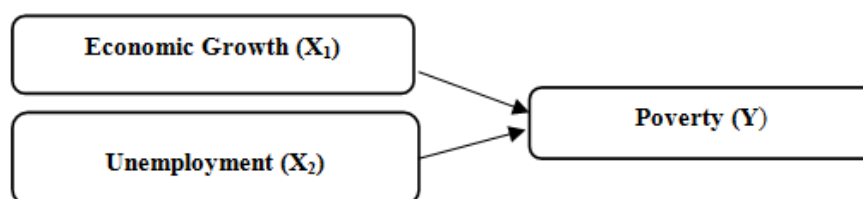


Figure 2: Research design

In this study which is an independent variable is economic growth and unemployment, while the dependent variable is poverty in East Java

The data used in this study are secondary data in the form of time series from 2001 - 2016. The selection of this period is due to fluctuations in poverty and an increase in GDP and followed by an increase in unemployment in 2005, so that research in that period was interesting for observed and data available for that year.

The analysis used in this study is multiple linear regression. Multiple linear regression is used to determine the effect of the change of an independent variable on the dependent variable.

To make it easier to analyze data, this study uses software eviews 7 with estimation of econometrics as follows:

$$KM = \beta_0 + \beta_1 PE + \beta_2 TPT + \epsilon$$

KM = The Rate Of Poverty

PE = The rate of economic growth as measured by the per capita GRDP growth rate on the basis of constant 2000 prices

- TPT = The rate of open unemployment in Jawa Timur
- $\beta_0$  = Constants
- $\beta_{1,2,3}$  = Regression Coefficient (estimated parameter)
- $\varepsilon$  = Error term (interference variable)

Multiple linear regression must fulfill the assumptions set to produce coefficient values as unbiased estimators which include normality, multicollinearity, heteroscedasticity, and autocorrelation tests.

Besides the classical assumption test also carried out a significance test. This significance test is conducted to measure the accuracy of the sample regression function in estimating its actual value, which can be measured from the goodness of fit. Statistically it can be measured from its determinant coefficient (R<sup>2</sup>), simultaneous significance value (F), and partial significance value (t).

The problem of poverty consists of many factors including the problem of unemployment, besides that economic growth also has an influence on the level of poverty, the following table shows the development of poverty, economic growth and the level of open unemployment.

**Table 1** developments in economic growth, unemployment and poverty in East Java

Year	Economic growth (%)	The rate of open unemployment (%)	The rate of poverty (%)
2001	3.76	4.35	20.73
2002	3.80	4.90	20.34
2003	4.78	4.81	19.52
2004	5.83	5.72	19.10
2005	5.84	8.51	22.51
2006	6.02	8.19	20.23
2007	6.11	6.79	19.98
2008	5.94	6.42	18.51
2009	5.02	5.08	16.68
2010	6.67	4.25	15.26
2011	7.22	4.16	14.23
2012			
2013	7.27	4.09	13.08
2013	6.55	4.30	12.73
2014	5.91	4.19	12.28
2015	5.44	4.47	12.34
2016	5.50	4.21	12.08

Source: East Java Province Central Bureau of Statistics (Data Processed)

The table above shows the rate of increase and decrease in economic growth in East Java from 2001 to 2011. Despite the increase in fuel prices in 2005, this did not reduce economic growth that year. the unemployment rate in the table above has increased from 2001 to reach its peak in 2005 of 8.51%. although there had been an increase in fuel prices in 2008 from Rp. 4,500 / liter to Rp. 6,000 / liter but this did not result in poverty in East Java, because in that year there was a policy of Direct Cash Assistance (BLT) from the government. exists because it is considered to be less effective in reducing poverty rates.

Classic assumption tests need to be done because in the regression model it is necessary to pay attention to the deviations of the classical assumptions, because in essence if the classical assumptions are not fulfilled, the explaining variables will be inefficient. By regressing the data that has been processed, the data are concluded passed the classical assumption test with a value of  $\alpha$  (0.05) or 95% confidence level.

This significance test is conducted to measure the accuracy of the sample regression function in estimating its actual value, which can be measured from the goodness of fit. Statistically it can be measured from its determinant coefficient (R<sup>2</sup>), simultaneous significance value (F), and partial significance value (t).

Through the results of the regression analysis statistical test with 95% confidence level independent variables namely economic growth and unemployment simultaneously and partially have an influence on the poverty variable. In the variation of the dependent variable poverty can be explained well by the two independent variables namely the variable economic growth and unemployment.

The following is a table of regression results that can show the results of statistical tests which include the determinant (R<sup>2</sup>), simultaneous significance value (f), and partial significance value (t).

Based on the regression results above, it can be seen that the partial significance value (t), namely the economic growth variable (PE) has a probability value of 0.0057 which is less than the value of  $\alpha$  (0.05). This shows that the economic growth variable has a significant result on poverty. Which, according to Kuznet in Tulus Tambunan (2008), growth and poverty have a very strong correlation, because in the early stages the process of poverty development tends to increase and near the final stages of development the number of poor

people has gradually diminished. And Hasan and Quibria (2002) say that there are no doubts about the importance of economic growth for reducing poverty. Where in their analysis model, poverty is a variable defined as the fraction of the total population with consumption expenditure below a certain minimum level of expenditure previously set, while the only independent variable is GDP. (Tambunan, 2008).

While the variable open unemployment rate (TPT) has a probability of 0.0002 which is less than  $\alpha$  (0.05), it shows that the economic growth variable has a significant outcome on poverty. This shows that the variable economic growth has a significant result of poverty. These results are in accordance with the theory and previous research which became the theoretical basis in this study. As in the research conducted by Munawaroh and Puruwita (2012) with the title Effect of education level, per capita income and unemployment on poverty in DKI Jakarta with the results of research showing unemployment has a positive impact on poverty. Although in the study period the number of unemployed people decreased every year.

This is also supported according to Todaro, (2003) Unemployment has a very close relationship in influencing poverty. Low standards of living are manifested qualitatively and quantitatively in the form of low income levels, inadequate housing, poor health, minimal education provision or even none at all, high infant mortality rates, relatively high life expectancy short and opportunities for low employment. In addition, according to Sukirno (2004), poverty is the effect of declining prosperity caused by reduced income originating from the high level of unemployment in a region. This shows that partially the variables of economic growth and unemployment have significant results on poverty.

Furthermore, to see the relationship of all variables simultaneously, the f test is used with the Prob (F-statistic) result of 0.000476. By looking at the results of f arithmetic greater than the value of  $\alpha$  (0.05), it can be concluded that simultaneously the variables of economic growth and unemployment have a significant result of poverty. This is in accordance with previous studies conducted by permana and Arianti (2012) which provide a conclusion that the GRDP growth rate will reduce poverty and the unemployment rate also significantly influence poverty, namely if unemployment increases then poverty also increases.

To find out how much the ability of independent variables explain the dependent variable, that is by looking at the value of R-squared (R<sup>2</sup>) which is worth 0.737075. so that it can be concluded that the independent variable consisting of economic growth and unemployment variables has an influence on poverty of 73.7%, while the remaining 26.3% is explained by other variables outside the model and which are not included

#### **IV. Conclusion**

For variable economic growth shows a negative sign that indicates the existence of a relationship that is inversely proportional or the opposite of poverty with growth, that is if economic growth increases then poverty decreases.

While the unemployment variable shows a positive sign of poverty in East Java which shows a direct correlation between unemployment and poverty, that is, if unemployment increases then poverty will increase as well.

Through the results of statistical analysis of regression analysis with a confidence level of 95%, independent variables namely economic growth and unemployment simultaneously and partially have an influence on the poverty variable. In the variation of the dependent variable poverty can be explained well by the two independent variables namely the variable economic growth and unemployment.

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