

The Impact of Economic Growth on Income Disparity and Poverty

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Abstrak: Pada studi ini ada hal penting yang melatarbelakangi analisis dampak pertumbuhan ekonomi terhadap disparitas pendapatan serta kemiskinan, yaitu; tujuan pembangunan yang berorientasi mengejar tingkat pertumbuhan ekonomi yang tinggi dengan harapan akan mengurangi ketimpangan distribusi pendapatan dan mengurangi kemiskinan penduduk menjadi berbeda sebagaimana yang terjadi di Kabupaten/Kota provinsi Jawa Timur. Pengaruh pertumbuhan ekonomi terhadap disparitas pendapatan membuktikan bahwa hipotesis Kutnez berlaku di Kabupaten/Kota provinsi Jawa Timur dengan adanya korelasi positif kesenjangan pendapatan dan pertumbuhan ekonomi.

Hasil studi ini menunjukkan pertumbuhan ekonomi mempunyai hubungan dengan kemiskinan mengikuti pola huruf U. Pertumbuhan ekonomi mempengaruhi tingkat kemiskinan dengan arah hubungan negatif. Mengacu pada hasil studi ini, kebijakan pro-poor growth yang mengasumsikan bahwa pertumbuhan ekonomi merupakan "necessary condition" sejalan dengan berlakunya hipotesis Kutnez dalam persoalan kemiskinan di Kabupaten/Kota Jawa Timur tidak terlalu tepat digunakan.

Kata kunci: pertumbuhan ekonomi, disparitas pendapatan, kemiskinan, pro-poor growth.

Abstract: In this study there are important things behind the analysis of the impact of economic growth on income disparity and poverty; development goals that are oriented towards pursuing high levels of economic growth in the hope of reducing the inequality of income distribution and reducing population poverty are different as is the case in the districts of East Java Province. The influence of economic growth on income disparity proves that the Kutnez hypothesis applies in the Districts of East Java province with a positive correlation of income gap and economic growth.

The results of this study indicate economic growth has a relationship with poverty following the pattern of the letter U. Economic growth affects the level of poverty with the direction of negative relations. Referring to the results of this study, the pro-poor growth policy assumes that economic growth is a "necessary condition" in line with the enactment of the Kutnez hypothesis in the problem of poverty in the districts of East Java is not very appropriate to use.

Keywords: economic growth, income disparity, poverty, pro-poor growth.

INTRODUCTION

According to Todaro (2000: 232) economic growth is defined as changes in the economy in a certain period driven by the internal processes of a country's economy. In some countries the problem of the impact of economic growth is the problem of poverty, unemployment and disparity between regions. In some cases, high economic growth in developing countries cannot fully overcome the problems of regional disparity, poverty and unemployment.

Researches related to regional economic growth have mixed results. Barro (2003: 407) conducts research on economic growth, which reveals that the growth rate of real per capita is positively related to human capital and that the initial state of real per capita has a negative influence. The union is due to differences in changes in labor, as well as differences in changes in capital stock. Unlike Drysdale and Yiping (1997), Romer and David (1997) shows that there are differences in economic growth rates in several countries due to changes in total factor productivity (TFP) compared to changes due to capital growth.

The fundamental problem faced by each country in the initial policy of economic development in addition to the target of pursuing economic growth is the aspect of equal distribution of

economic development outcomes. Economic growth which is often used as an indicator of economic progress, in some countries turned out to leave various problems, including the occurrence of income inequality and poverty problems.

The negative impact of pursuing economic growth as developed countries including Indonesia at the beginning of economic development is more due to the economic development paradigm that relies on the application of the trickle down effect theory, but the effect of dripping down in devising development results does not go as expected. Nevertheless, pursuing economic growth as a choice of development policy in its journey continues to experience development between schools that maintain economic growth and schools that are more concerned with aspects of equity and poverty.

According to Balisacan and A. Asra (2003), increasing economic growth does not necessarily guarantee that the problem of income inequality and poverty can be reduced. In developing countries including Indonesia which has high growth in the early stages of development, but the situation causes widespread income inequality and an increasing number of poor people. This raises demands to balance economic growth and the problem of reducing income and poverty disparities.

According to Siregar and Wahyuni (2007) the success of development can be measured from the rate of economic growth that affects the decline in poverty. Balisacan and A. Asra (2003) from the results of their studies show that Indonesia is a country that has the ability to reduce the number of poor people through increasing economic growth. The results of the Balisacan and A. Asra study in Indonesia show that there is a fundamental reduction between the increase in economic growth and the decline in the number of poor people.

At the provincial regional level, this study conducted in East Java province tried to see the link between economic growth and its relation to income disparity and poverty at the level of Districts in East Java. Unlike the case with other provinces, East Java Province is an area whose economic growth rates are above the national level which ranges from 7% to 10%. However, East Java's economic growth experienced a sharp decline in line with the national economic crisis in 1998 (World Bank and International Monetary Fund, 2001: 168).

East Java Province with a population of 16% of the total population of Indonesia, the average economic growth reached 6.55% between 2009 sd 2012. The average economic growth of 6.55% reached the highest compared to the average economic growth of the province in Java.

The important thing behind the influence of economic growth on income inequality and changes in the amount of poverty due to development goals that are oriented towards pursuing high levels of economic growth in the hope of reducing inequality in income distribution and reducing population poverty is different as happened in East Java. The fact that in East Java has economic growth above the national average has not been able to overcome the problem of disparity in income distribution between Districts as indicated by the high regional gap index and the increasing poverty rate in the Districts of East Java.

RESEARCH METHODS

This research is based on explanatory research design, which is research that intends to examine and analyze the determinants of economic growth, and their influence on income disparity and poverty level. This study aims to examine and test the theory based on the influence between variables formulated in the hypothesis and analyzed the effect of the differences between these variables based on empirical data collected through library research.

The consideration underlying the selection of such a design is that the information contained in the data that has been officially provided and published by BPS can be utilized or explored

more optimally for the development of science and policy. The variables used in this study can be grouped above independent exogenous variables, endogenous dependent variable. In detail the variables in this study can be classified on independent exogenous variables, economic growth variables (X_{1t}) and economic growth variables (Y_{1t}) and income disparities (Y_{2t}).

Secondary data was obtained from the publication of the BPS of East Java Province in the form books published both at the provincial and Districts levels in the year 2008-2015, while data in the form of books, magazines, journals and research reports were obtained from websites and library search using documentary methods.

In this study to see the relationship between observed variables expressed in the form of equations by forming 2 (two) structural equations:

1. Structural equation for Y_{1t} income disparity:

$$Y_{1t} = \beta_0 + \beta_1 X_1 + \varepsilon_2$$

2. Structural equation for poverty Y_{2t} :

$$Y_{2t} = \beta_0 + \beta_1 X_1 + \varepsilon_2$$

RESULTS AND DISCUSSION

The discussion of the results of this study was carried out by looking at the relationship between variables in accordance with the proposed study hypothesis and seeing the relationship with the theory that has been proposed and various results of empirical studies conducted by previous researchers.

Theoretical studies and empirical studies in this study will be used as a basis for determining conclusions, whether the results of this study support or reject the results of previous empirical studies related to issues of economic growth and poverty problems. The final results obtained can be used as further research material based on various limitations in this study.

A. The Effect of Economic Growth on Income Disparities

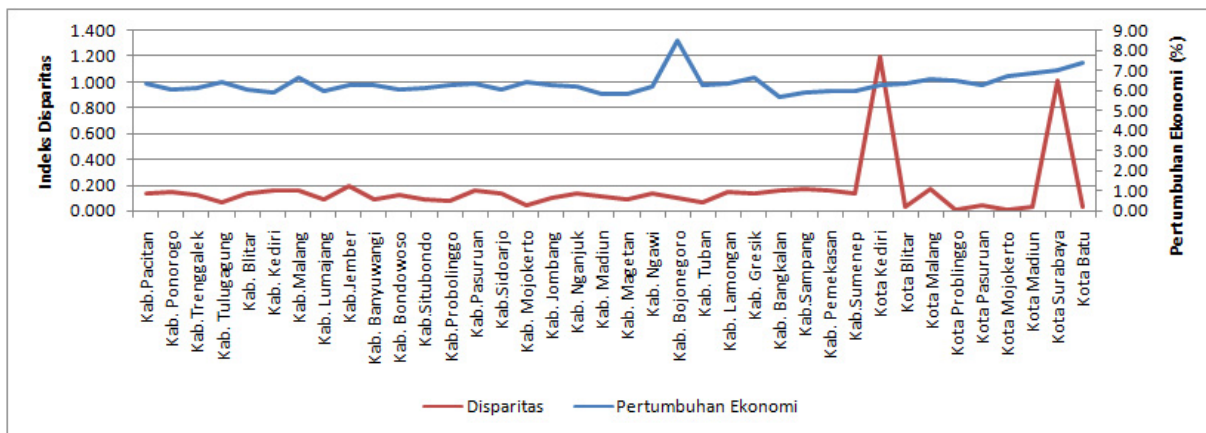
The estimation results show that the level of economic growth has a significant effect on income inequality in the districts of East Java. The value of the β coefficient (path) is 0.042 at the significance level ρ -value of 0.000 (Table 1). This means that if the economic growth reaches a maximum of 1% it will increase the income gap by 0.042%.

Table 1. SIGNIFICANCE TEST PATH ANALYSIS

No	Variable	coefficient	ρ -value	Conclusion
1.	Economic Growth on Income Disparities	0.042	0.000	Signifikan

Sumber : Data diolah.

The positive influence of economic growth on income disparity can be proven from the comparison of trends between economic growth and income disparity in Figure 1, which shows the movement of economic growth and disparity are unidirectional. This means that the higher the economic growth, the higher the income distribution gap in the East Java Districts .



Source : BPS Pro. Jawa Timur (2012a, 2015b)

Figure 1. ECONOMIC GROWTH AND INCOME DISPARITY IN THE DISTRICTS EAST JAVA PROVINCE

Judging from the comparison of the average economic growth with income disparity, it shows a positive trend. Increasing economic growth will encourage an increase in the average income disparity index in East Java.

The linkage of economic growth with income disparity shows evidence of the influence of economic growth on income disparity between regions. When viewed from the average economic growth in the districts of East Java there are 8 Districts whose average growth is above average growth East Java province.

Meanwhile there are 7 Districts whose disparity index is higher than the provincial average. This indicates, that the average high economic growth is found in several district.

A high income gap occurs in several regions with high growth rates. Districts with high economic growth, reflected in the high GRDP per capita will also be followed by the tendency of high rates of regional income disparity when compared to Districts whose economic growth is below the economic growth of East Java. The higher economic growth means the greater the GDP per capita, and the rate of income disparity in the region is relatively high, indicating an income gap compared to other regions

The typology of linkages to economic growth with income disparities shows evidence of an influence between economic growth and income disparities between regions. Judging from the average economic growth in the districts of East Java, there are 8 districts which the average economic growth is higher than the economic growth in the districts of East Java. Meanwhile there are 7 districts whose disparity index is higher than the provincial average index. This indicates, that the average high economic growth is found in several districts .

The results of this study are in line with the study of Forbes (2000) which shows that the relationship between economic growth and income gap is positive with the nature of relationships that are robust. Similarly, the study of Waluyo (2007) concluded that there was a significant and positive influence of economic growth on the income gap. In general, the results of his study showed that a fiscal decentralization policy which was marked by improved economic growth in Indonesia had not been able to reduce income disparities between regions.

The results of this study are in line with the Kuznets hypothesis which states the relationship of economic growth with the level of income disparity in the early stages of development becomes negative. In the early stages of economic development showed a gap in income

sharing, then stabilized and eventually declined. The cause of this is due to the concentration of wealth and accumulation of capital ownership in a particular group of people.

The results of this study are not in line with the research by Peroti (1996) which concluded that there was a negative influence between economic growth and income inequality. The negative influence between economic growth and income disparity is also consistent with the study of Galor (2002). Galor indicates that the relationship between economic growth and income disparity does not occur directly.

The income gap has an impact on the quality of investment in human resources. The low level of human capital investment will cause the low ability of workers which in turn affects GDP. On the contrary, the low GDP will be reflected by the low investment in human resources, as a result of the low ability of workers to influence the increase in people's income. The low income of the people caused by the low level of worker skills will reflect the level of income gap in the community.

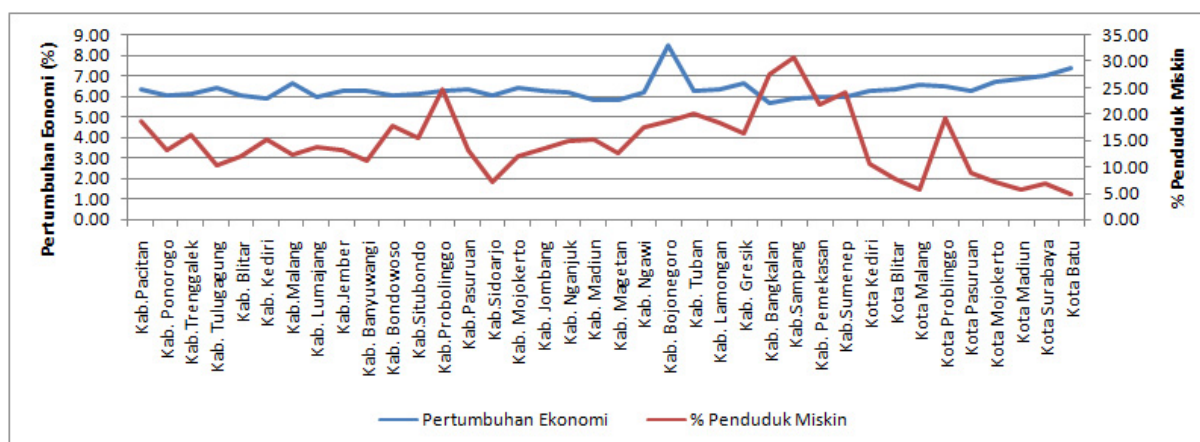
B. The Effect of Economic Growth on Poverty

The results of the study show that economic growth significantly affects the poverty level with the estimated path coefficient of -0.091 at a significance level of 5% (Table 2). That is, if the standard deviation of the economic growth rate rises by 10%, it will reduce the number of poor people 0.91%. This means that the higher economic growth will reduce the number of poor people in the Districts of East Java.

Tabel 2. P SIGNIFICANCE TEST PATH ANALYSIS

No	Variable	Coefficient	ρ -value	Conclusion
1.	Economic Growth on Poverty (the Number of Poor People)	-0.091	0.000	Signifikan

The negative influence of economic growth on poverty levels can also be seen from the comparison of trends between economic growth and the number of poor people as shown in Figure 2. The trend shows that economic growth in districts follows a pattern contrary to the number of poor people. Districts with high economic growth, low numbers of poor people, and vice versa, districts/ cities with lower economic growth, smaller numbers of poor people.



Source : BPS Provinsi Jawa Timur (2012a,2012b). Data diolah.

Figure 2. ECONOMIC GROWTH AND POVERTY (% OF POOR PEOPLE) IN THE DISTRICTS/ CITIES EAST JAVA PROVINCE

Figure 2 shows the opposite trend between the average economic growth and the number of poor people with different time frames. Changes in economic growth at the beginning of the year of observation between 2009 and 2012 relatively grew rapidly, on the contrary starting in 2013 the average economic growth in each Districts began to slow down. This condition results in a decline in the number of poor people in each year, even though the numbers vary between Districts. The increase in economic growth in Districts has implications for the ability of districts governments to reduce the number of poor people.

Based on the typology of the relationship between economic growth and the number of poor people, there are 5 Districts that have a positive relationship pattern between economic growth and poverty. The districts is; Ngawi, Pacitan, Lamongan, Gresik and Probolinggo.

Districts categorized as quadrant II, are regions with low economic growth, but the number of poor people is high. Regions in quadrant II have a typology pattern of low economic growth and high levels of poverty.

In the category of quadrant III there are 11 districts. In this category the area has high economic growth with a low poverty rate. The area in this quadrant has a negative relationship pattern between economic growth and poverty.

Districts categorized as quadrant IV as many as 10 regions that have low economic growth with a low number of poor people, and in other words; Banyuwangi, Sidoarjo, Kediri, Bojonegoro, Ponorogo, Jombang, Madiun, Kab. Lumajang, Kabupaten Jember, and Pasuruan. Generally, districts in East Java are mostly in quadrant II (12 district) which indicate that they are in a position of low economic growth with a high poverty rate or poor population.

The results of this study are consistent with Straus's (2002) study which concluded that high levels of capita expenditure reflecting economic growth will affect lower poverty. According to Agrawal (2008) changes in the level of economic growth will significantly affect the level of poverty through a path of changes in the number of workers and an increase in real wages which in turn has an impact on reducing the number of poor people.

Balisacan and A. Asra (2003) study shows a strong relationship between economic growth and poverty. Similar results based on Siregar's and Dwi Wahyuni's (2007) research concluded that economic growth had a significant effect on poverty reduction with a small magnitude. Sasana (2009) concludes that there is a consistent influence of negative GDP variables on poverty.

The results of this study are in line with the research of Kakwani and Son (2000), which concludes that economic growth is negatively related to poverty, meaning that positive economic growth reduces poverty. The results of Kakwani and Son's research confirms the notion that success in increasing economic growth will reduce poverty.

From the results of this study determined a policy to reduce poverty through a pro-poor-growth strategy. Measurement of pro-poor-growth strategy through the calculation of the Pro-Poor-Growth Index (PPGI) developed by Kakwani and Son (2000). PPGI is obtained from the results for the model of inequality change ($\text{Log Pov} = b_0 + \lambda \text{LogPE} + \epsilon_{it}$) to the constant inequality model ($\text{Log Pov} = b_0 + \text{ogLogPE} + \text{ogLogIW} + \epsilon_{it}$). Using the inequality model to change and the constant inequality model the magnitude of PPGI is obtained by formulation: $\text{PPGI} = \delta = \lambda / \gamma$, with the PPGI category developed by Kakwani and Son (2000) as follows.

- $\delta \leq 0$: anti poor growth
- $0 < \delta \leq 0.33$: pro-poor growth is weak
- $0.33 < \delta \leq 0.66$: moderate pro-poor growth
- $0.66 < \delta \leq 1.0$: pro-poor growth
- $1.0 < \delta$: growth is very pro-poor

From the results of the analysis of the calculation of the constant inequality model is known as follows:

$$\text{LogPov} = 2.569 - 0.124\text{LogPE} + 0.042\text{LogIW} + \varepsilon_{it},$$

while the inequality model changes as follows:

$$\text{Log Pov} = 2.569 - 0.123\text{LogPE} + \varepsilon_{it},$$

thus the amount of PPGI can be known as follows: $\delta = \lambda / \gamma = -0.123 / -0.124 = 0.99$.

Based on the pro-poor-growth index of 0.99 it can be concluded that the policies of economic growth in the Districts of East Java are included in the pro-poor category. This result is in line with the concept of development carried out in East Java with its “pro-poor growth” policy.

In the poverty structural equation model the results of this study do not support the Kutnez poverty theory (in Djoyohadikusumo, 1994: 131-132) which argues that the relationship between economic growth and poverty resembles an inverted U hypothesis. At a time of low economic growth, poverty will be high and then decline again in line with increasing economic growth.

Referring to the results of this study, the pro-poor growth policy assumes that economic growth is a “necessary condition” in line with the enactment of the Kutnez hypothesis in overcoming the problem of poverty in East Java is not very appropriate to use.

The results of this study indicate that the fundamental problems faced by districts (57.8%) in East Java are not more due to uneven economic growth. Inequality in economic growth (economic growth) occurs due to economic development which is only concentrated in certain regions in East Java. As a result, the development policies carried out by the central government or provincial government actually add to the gap in income distribution.

In a different aspect, making economic growth as a “necessary condition” in reducing the number of poor people is then adopted through the strategy of “pro-poor growth” as the East Java government did get a challenge from the researchers. Ohno (2003) stated that the pro-poor growth strategy should be able to reduce the number of poor people according to the target set. Because if not, technocratic models that begin with political supremacy and or populist policies to achieve high economic growth will create inequality, inequality, and increase the number of poor people which in turn will result in political instability.

CONCLUSION AND RECOMMENDATION

Based on the results of studies that have been analyzed and discussed in the previous section, it can be concluded that:

1. Economic growth has a significant effect on income disparity in the direction of a positive relationship. The positive path direction coefficient and statistically significant indicate that economic growth tends to encourage increased income disparity between districts
2. Economic growth has a significant effect on poverty with the direction of negative relations. Negative and significant path direction coefficients indicate that economic growth tends to reduce the number of poor people. This coefficient indicates that districts have higher economic growth faster reducing the number of poor people.
3. The results of this study are in accordance with Harrod-Domar’s (1985) growth theory and Solow-Swan Theory (1956) and endogenous growth (new growth theory) which Romer (1986) proposed with his human capital quality theory. The results of this study do not support Kutnez’s poverty theory which argues that the relationship between economic growth and poverty resembles the inverted U hypothesis. At a time of low economic growth, poverty will be high, and then decline again in line with increasing economic growth.

Based on the findings of this study, several suggestions need to be submitted for the practical benefit of the districts/ cities of East Java province ;:

1. Policies that encourage “necessary condition” economic growth to overcome poverty problems must be aligned with policies to reduce income disparities between districts/cities.
2. Substantially a decrease in the number of poor people will be reduced faster if the districts is able to encourage high economic growth, spur the productivity of the agricultural sector and the use of educated workforce that is increasingly qualified (increased education level).

ACKNOWLEDGEMENT

This research originated from the development of teaching materials for Indonesian Economics lectures. Finished and structured this report is inseparable from the contribution of students who complete research data as well as advice and funding assistance for research development for lecturers provided by the Development Economics Program of FEB UMM. Although the results of this study are relatively simple, researchers believe that there are new things in looking at poverty issues and income disparities in a region.

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