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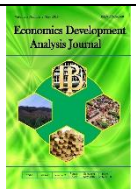

The Analysis of Economic Development GAP Between Regencies in Central Java Provinces

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Abstract

The purpose of this study were (1) to know how the development level of inequality of economic development in Central Java Province according to Williamson Index; (2) determine the extent of the influence of the labor force to the level of economic development of Central Java Province; and (3) know how to influence the allocation of development aid districts / cities to the economic development of Central Java province. This research is a quantitative research used panel data, time series data (years 2002-2011) and cross section (35 districts / cities in Central Java province). The data used in this research is secondary data obtained from the Central Statistics Agency (BPS). The analytical method used is the method of multiple linear regression analysis of panel data with FEM methods used tools Eviews 7 software. Results of the study is to show (1) the economic development gaps between regions in Central Java province which is calculated using Williamson index during the period 2008-2011 showed a widening inequality; (2) the allocation of development aid from the central government uneven and areas that receive aid are too large can increase the level of inequality between regions. This is due to the construction of concentrated to areas that are already developed than areas that are still lagging behind, because the area is developed better facilities from areas not yet developed; and (3) R2 value of 0.9949 means variable variation inequality of economic development in Central Java province can be explained by variables of the labor force and the allocation of regional development funds amounting to 95.5% while the remaining 0.05% is explained by other factors outside the model.

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INTRODUCTION

Inequality is one of the problems faced by the Indonesian in implementing the development, whether that occurs between regions and within the region itself. The relationship between growth and inequality is complex (Turnovsky, 2015). Economic imbalances used as indicators of differences in per capita income on average, between income groups, between employment groups, and / or across regions. The increasing economic gap, often considered dangerous, is increasingly seen to have a number of secondary impacts as well, including the impact on health and economic growth (Berthe & Elie, 2015). As one of the cases of economic imbalance in Central Java Province. In this province there is an increase in economic growth, but the growth is not followed by the even distribution of income of each district.

Some areas in Central Java Province such as Semarang municipality, Cilacap Regency, Kudus Regency, Surakarta City, and Magelang City, have high per capita income but in other regions that have low per capita income. A region with relatively low per capita incomes are: Wonosobo Regency, Grobogan Regency, Purbalingga Regency, Tegal Regency, Kebumen Regency. The inequality can be seen from the different characteristics of Indonesian territory in terms of natural resource ownership, human resources, social and cultural conditions and the location of the demographic region of the region. So it is not surprising that the pattern of economic development in various regions in Indonesia is heterogeinity (Wijaya, 2001).

There is an imbalance between the labor force with job vacancy. It makes inequality become wider. The growing unemployment will be the burden of the regional economy and reduce the welfare. In 2003 the number of unemployed in Central Java Province was 912,513 people, increased to 1,044,573 people in 2004, and became bigger in 2005 as many as 9,698,112 people (Central Statistic Agency, 2006).

In addition to the labor force, the factors that affect regional economic development are regional development aid funds. The allocation of development budget as an instrument to reduce economic inequality seems to be more important. The budget allocation strategy should encourage and accelerate the growth of national economy as well as become a tool to reduce regional inequality (Majidi, 1997).

Capital accumulation, skills of labor and natural resources owned by a region is a trigger in the economic growth. The existence of heterogeneity and various characteristics of a region cause the inter-regional inequality between economics sector and area. One example is Canada. Canada is the fastest growing member of the OECD in inequality, especially since the mid-1990s (Breau, 2015).

RESEARCH METHOD

This study uses a quantitative approach. Where quantitative approaches essentially emphasize the analysis on numerical data that processed with statistical methods. Quantitative methods will be obtained significance of group differences or significance of relationships among variables studied (Azwar, 2001: 15).

This research uses quantitative research method using panel data. Panel data method is a method used to perform empirical analysis that is not possible if only using time series data or cross section only. Model estimation using panel data can be done with three methods, namely least squares method, fixed effect method, and random effect method.

RESULT AND DUSCUSSION

After data processed by Fixed Effect Model method. Then the data compared with Pooled Least Square method in F-Restricted test. From the results of processing E-Views 7.0 the results such as follows:

Table 1 above shows that the coefficient of determination (R2) is 0.994932. This means that variation of variables inequality of economic development in Central Java Province can be explained by the variables of workforce and

allocation of regional development fund equal to 99,5% while the rest equal to 0,5% explained other factors outside model.

Table 1. Fixed Effect Model

R squared	0.996244
Adjusted R squared	0.994932

Collinearity

Clolininity occurs when there is a definite relationship between several variables or all independent variables in the model. In the case of serious collinearity, the regression coefficient no longer shows the pure effect of the independent variable in the model. Collinearity means the existence of a definite relationship between several variables or all of the explanatory variables of the regression model (Gujarati, 2003). Classic assumption test Multicolinearity is done by looking at VIF (Variance Inflation Factor) and tolerance. If the VIF value is less than 10 and its tolerance value above 0.1 or 10% it can be concluded in the free model of the classical assumption deviation. Multicollinearity (Ghozali, 2005; Gujarati, 2003).

VIF value of all independent variables in this study is smaller than 10. In addition the results of calculation of tolerance values as shown in table 2 shows all independent variables have a tolerance value of more than 0.1 which means there is no correlation between independent variables whose value is more than 90% . Thus it can be concluded that there is no collinearity between independent variables in the regression model.

Table 2 Collinearity test

Variable	t-Statistic	Prob	Significant
Labor	2.550947	0.0111	Significant
Development funds allocation	2.485158	0.0134	Significant

Heteroscedasticity

The important assumption of the classical linear regression model is that the disturbance term which appears in the population regression function is homocedasticity, whereas all disturbance term has the same variant. Heteroscedasticity test used by Glejtser Test (Gujarati, 2003) by regressing absolute residual value (as dependent variable) from initial regression calculation with all independent variables. When the statistical test of the regression results is not significant, this means the model does not contain heteroscedasticity and vice versa. Based on the results of calculations with Eviews 7 obtained data as follows:

Table 3. heteroscedasticity test

F-statistic	57.59501	Prob. F(5,134)	0.0000
Obs*R-squared	95.54240	Prob. Chi-Square(5)	0.0000
Scaled explained SS	284.8101	Prob. Chi-Square(5)	0.0000
R-squared	0.682446	Mean dependent var	0.004687
Adjusted R-squared	0.670597	S.D. dependent var	0.011737
S.E. of regression	0.006737	Akaike info criterion	-7.120620
Sum squared resid	0.006081	Schwarz criterion	-6.994550
Log likelihood	504.4434	Hannan-Quinn criter.	-7.069389
F-statistic	57.59501	Durbin-Watson stat	0.634910
Prob(F-statistic)	0.000000		

From table 3 above can be seen that all independent variables give probability significance value greater than 0.05 (not significant) so it is concluded that in the model, all independent variables there is no heteroscedasticity.

Autocorrelation

Autocorrelation is the correlation between members of a series of observations sorted by time (as in timing data) or space (Gujarati, 2003). In the regression context, the classical linear regression model assumes that such autocorrelation is not present in disturbance or disorder. In other words the element of interference associated with observation is not influenced by the disturbance associated with any other observation. Testing of autocorrelation in regression is done by looking at the state of Durbin Watson (DW test).

Table 4. Autocorrelation test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.000938	0.006569	-0.142769	0.8867
ANGKATAN	6.83E-09	5.94E-08	0.115093	0.9085
DBP	1.41E-10	1.77E-09	0.079512	0.9367
RESID(-1)	0.794152	0.085192	9.321870	0.0000
RESID(-2)	-0.144203	0.085416	-1.688237	0.0937
R-squared	0.491494	Mean dependent var		-2.60E-17
Adjusted R-squared	0.476427	S.D. dependent var		0.068709
S.E. of regression	0.049717	Akaike info criterion		-3.129885
Sum squared resid	0.333688	Schwarz criterion		-3.024827
Log likelihood	224.0920	Hannan-Quinn criter.		-3.087193
F-statistic	32.62083	Durbin-Watson stat		1.964419
Prob(F-statistic)	0.000000			

The calculation result obtained DW number equal to 1,964 (see attachment of Autocorrelation test). With the amount of data (n) equal to 140 and the number of variables (k) equal to 3 and a = 5% obtained the number dL = 1.12 and dU = 1.66, then the model can be said there is no autocorrelation either positive or negative.

t-statistic

The test is conducted to test whether the independent variables (labor force and allocation of regional development funds) partially influence the dependent variable (development gap), ie by comparing each t-statistic value of regression with t-table in rejecting or accepting hypothesis. At the level of confidence α = 5%, then obtained t-table 2.132.

= Labor Force (-1.030720)

= Allocation of Development Fund (8.998564)

Based on the results, it can be seen that coefficient of determination is 0.994932. It is seen that 99.5% development gap in 35 districts / cities in Central Java can be explained by the labor force and the allocation of regional development funds. While 0.5 percent of variable development gap is explained by other variables that are not examined in this study.

According to the calculation, the imbalance of economic development between regions in central java province which calculated by using williamson index during the period of

2008-2011 shows inequality widened. Therefore, the growthpole area such Semarang Municipalities, Kudus regency, Cilacap regency contribute towards Central Java GDRB. However, there are so many retarded region such Grobogan, Brebes, Blora, Wonosobo etc. That is why the inequality between region tend to widened.

The regression coefficient of the labor force variable gives a negative sign which means the increasing of labor force will decrease the imbalance of economic development in Central Java Province. A growing number of people will result in variation and the number of labor force increases.

The variable of allocation of regional development fund gives positive regression coefficient which mean higher allocation of regional development aid and uneven distribution will hence higher economic development inequality in Central Java Province.

The inequality of per capita income between regions has led to the importance of development assistance from the central government. Development assistance provided by the central government to districts / municipalities should be adjusted to the situation and conditions in their respective areas so that expected areas that are left behind can pursue developed areas. In order to make optimal use of development aid funds, it is necessary to increase the role of oversight by both the authorized institutions and the community.

CONCLUSION

From this study it can be concluded that the imbalance of economic development between regions in central java province which calculated by using williamson index during the period of 2008-2011 shows inequality widened.

The regression coefficient of the labor force variable gives a negative sign which means the increasing of labor force will decrease the imbalance of economic development in Central Java Province. The variable of allocation of regional development fund gives positive coefficient which mean higher allocation of regional development aid and uneven distribution will hence higher economic development inequality in Central Java Province.

The inequality of per capita income between regions has led to the importance of development assistance from the central government. In order to make optimal use of development aid funds, it is necessary to increase the role of oversight by both the authorized institutions and the community.

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