Analysis Of Factors Affecting Income Distribution Nequality In Indonesia 2009-2013 Period

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ABSTRACT

Purpose: To analyze the effect of population, minimum wages and unemployment on inequality of income distribution in Indonesia. This study uses secondary data in the form of panel data consisting of time crosses for the period 2009-2013 and cross places in 33 provinces in Indonesia

Design/methodology/approach: The analysis carried out is a quantitative analysis using multiple linear regression to answer the problem formulation and determine the effect of predetermined variables.

Findings: All independent variables are said to have a joint (simultaneous) influence on the dependent variable because it is seen from the level of significance that the number is 0.002 less than 0.05, which means that there is a significant effect simultaneously between the population, minimum wages and unemployment on inequality of income distribution in Indonesia the period 2009-2013. There is a partially significant effect between the minimum wage and the inequality of income distribution. The minimum wage variable has a dominant influence on inequality in income distribution in Indonesia for the 2009-2013 period.

Practical implications: To Intensify business in the economic sector in order to touch the lower class of society

Originality/value: This paper is original

Paper type: Research paper

Keyword: Population, Minimum Wage, Unemployment and Inequality of Income Distribution

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I. INTRODUCTION

Economic growth is a measure of the success of a country's development. The economy is considered to experience growth if all real remuneration for the factors of production in a certain year is greater than the income received by the community in the previous year. One of the indicators used to measure economic growth is the growth rate of Gross Regional Domestic Product (GRDP). The current economic growth in Indonesia has prospects, but on the other hand, the distribution of income in Indonesia still looks unequal. So that seen from the Gini Index there is a moderate imbalance which basically needs to be watched out. This can be seen in Table 1.1 regarding the comparison of economic growth with inequality in income distribution for 2009-2013 as follows...
Table 1. Comparison of GDP Per Capita with the Gini Index in Indonesia in 2009-2013

<table>
<thead>
<tr>
<th>Year</th>
<th>GRDP per capita (Rp)</th>
<th>Gini Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>23.9 million</td>
<td>0.37</td>
</tr>
<tr>
<td>2010</td>
<td>27 million</td>
<td>0.38</td>
</tr>
<tr>
<td>2011</td>
<td>30.8 million</td>
<td>0.41</td>
</tr>
<tr>
<td>2012</td>
<td>33.3 million</td>
<td>0.41</td>
</tr>
<tr>
<td>2013</td>
<td>36.5 million</td>
<td>0.41</td>
</tr>
</tbody>
</table>

Source: BPS East Java (2015)

Based on table 1, it shows that the amount of GDP per capita received by the community has increased from year to year, the inequality of income distribution in Indonesia as measured by the Gini Index shows a higher number. This directly illustrates that in Indonesia there is an inequality in income distribution which results in the growth of the poor population more and more. Meanwhile, the impact of price adjustment policies, such as the fuel price in 2013 and income adjustment policies such as minimum wages and civil servant salaries, which have triggered inflation in recent times, have also affected poverty levels and income distribution in Indonesia. One of the factors that plays an important role in the problem of inequality in income distribution is the population that continues to increase from time to time, this triggers the availability of jobs. People who have entered the workforce need decent wages to meet their daily needs, but they do not always get the opportunity to enter the world of work so they are forced to become unemployed.

Based on the background described, the authors are interested in conducting research with the title: Analysis of Factors Affecting Inequality of Income Distribution in Indonesia for the 2009-2013 Period. This research was conducted to determine the effect simultaneously and partially between the variable population, minimum wages and unemployment on inequality in income distribution in Indonesia for the period 2009-2013 and to determine which variables have a dominant influence on inequality in income distribution.

II. LITERATURE REVIEW

A. Inequality of Income Distribution

According to Irma Adelman and Cynthia Taft Morris Adisasmita (2013), in general, the factors causing inequality in income distribution in developing countries are as follows:
1. High population growth.
   Inflation, where money income increases but is not followed proportionally by the increase in the production of goods.
2. Inequality of development between regions.
   Investments are very much in capital intensive projects, so that the percentage of capital income from added assets is large compared to the percentage of income from work activities, so that unemployment increases.
3. Low social mobility.
   Implementing import substitution industrial policies to protect the businesses of the capitalist group which results in an increase in the prices of industrial products.
4. The weakening of the exchange rate for developing countries in trade with developed countries, as a result of the inelasticity of demand by developing countries for export goods of developing countries.

According to Williamson's opinion Adisasmita (2013) the concept of unequal distribution of income between regions emphasizes two influential variables, namely population and Gross Regional Domestic Product (GRDP). Each region has different potential, conditions and characteristics of the region, some are high and some are low, which can lead to unequal distribution of income between regions. Meanwhile, Jonna P. Estudillo Kartika (2014) argues that wages are the income of workers who are part of household income and have a major contribution in influencing the inequality of household income distribution.

B. Population

Population is defined as a collection of similar individuals in a particular area. The term Population includes loan words in Indonesian which come from English, namely Population (Lestari & Wijaya, 2012). Population is usually expressed in units of area per unit time. In terms of population, population is used to describe the number of residents in an area within a certain time.
C. Minimum Wage

Minimum Wage is a standard minimum used by the entrepreneur or perpetrator industry to give wage to employees, employees or laborer in his business or work environment. The government regulates wages through the Minister of Manpower Regulation No. 05 / Men / 1989 dated 29 May 1989 concerning Minimum Wages, which was subsequently updated by the Minister of Manpower Regulation No. 7 of 2013 concerning Minimum Wages. Wages are determined annually through a long process. At first the Regional Wage Council (DPD) which consisted of bureaucrats, academics, laborer and entrepreneur hold meeting, forming team survey and take to the field to find out price a number of needs needed by employees, employees and laborers. After a survey in a number of cities within the province that were considered representative, figures were obtained Decent Life Needs (KHL), formerly known as Minimum Living Needs (KHM). Based on the KHL, the DPD proposes a regional minimum wage (UMR) to the Governor to be ratified. The decent living needs component is used as the basis for determining the minimum wage based on the living needs of single (unmarried) workers. Currently, the UMR is also known as the Provincial Minimum Wage (UMP) because the coverage area usually only covers one province. Apart from that after regional autonomy fully valid, also known as the term District / City Minimum Wage (UMK).

D. Unemployment

Unemployment is someone who is already classified in the labor force (15-64 years) who is actively looking for work at a certain wage level, but cannot get the desired job (Sukirno, 2006).

According to Sukirno (2006), unemployment is divided into 3 types based on the circumstances that cause it, including:

a. Frictional unemployment, namely unemployment caused by temporary difficulties in meeting employers with job applicants.

b. Structural unemployment, namely unemployment caused by changes in the structure of the economy.

c. Cyclical unemployment, namely unemployment associated with a decline in the economic activity of a country or a state experiencing a recession.

E. Hypotesa

Factors affecting inequality of income distribution in Indonesia 2009-2013 period either simultaneously, partially or dominantly

III. METHODOLOGY

Data analysis was carried out with the help of the Multiple Linear Regression Method as an econometric calculation tool, but before performing multiple linear regression analysis and descriptive analysis, the classical assumption test was used which included normality test, multicollinearity test, autocorrelation test and heteroscedasticity test.

The linear regression equation model is as follows:

\[ Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon \]

Information:

- \( Y \) = Inequality of Income Distribution
- \( \alpha \) = Constant
- \( X_1 \) = Population Population
- \( X_2 \) = Wages Minimum
- \( X_3 \) = Unemployment
- \( \beta_1, \beta_2, \beta_3 \) = The regression coefficient of each independent variable
- \( \varepsilon \) = Standard error
IV. RESULTS AND DISCUSSION

A. Analysis of Multiple Linear Regression Results

From data processing with the Gini Index as the dependent variable and the population, minimum wage, and unemployment as independent variables, the results of the regression equation model are as follows:

\[ Y = 0.312 + 1.033 \times 10^{-10} X_1 + 4.567 \times 10^{-8} X_2 + 1.635 \times 10^{-8} X_3 \]

B. F Test

All independent variables are said to have a joint (simultaneous) influence on the dependent variable because it is seen from the level of significance that the number is 0.002 less than 0.05, which means that there is a significant effect simultaneously between the population, minimum wages, and unemployment on inequality of income distribution in Indonesia the period 2009-2013.

C. T Test

The t test basically shows how far the influence of one independent variable individually on the dependent variable. The independent variable is considered to have an influence on the dependent variable if the significance is <0.05. Then the t test results obtained are shown in the table below:

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>.312</td>
<td>.014</td>
<td></td>
<td>21.558</td>
</tr>
<tr>
<td>Population</td>
<td>1.033E-10</td>
<td>.000</td>
<td>.026</td>
<td>.110</td>
</tr>
<tr>
<td>Minimum wage</td>
<td>4.567E-8</td>
<td>.000</td>
<td>.294</td>
<td>3.670</td>
</tr>
<tr>
<td>Unemployment</td>
<td>1.635E-8</td>
<td>.000</td>
<td>.153</td>
<td>6.666</td>
</tr>
</tbody>
</table>

Source: Researcher (2018)

Testing of whether or not the influence of each independent variable on the dependent variable can be explained as follows:

1. Population (X1)
   Because the significance > 0.05 (0.913 > 0.05), it means that there is no partially significant effect between the population and the inequality of income distribution. Based on the regression above, the regression coefficient is 1.033E-10. This means that there is a positive relationship between the population and the Gini Index, which means that every 1% increase in population by an average of 1% will increase the Gini Index by 103.3% if other independent variables are considered unchanged.

2. Minimum wage (X2)
   Because the significance < 0.05 (0.000 < 0.05), it means that there is a partially significant effect between the minimum wage and the inequality of income distribution. Based on the regression above, the regression coefficient is 4.567E-8. This means that there is a positive relationship between the minimum wage and the Gini Index, which means that every 1% increase in the minimum wage will increase the Gini Index by 456.7% if the other independent variables are considered unchanged.

3. Unemployment (X3)
   Because the significance is > 0.05 (0.506 > 0.05), it means that there is no partially significant effect between unemployment and unequal income distribution. Based on the regression above, the regression coefficient is 1.635E-8. This means that there is a positive relationship between unemployment and the Gini Index, which means that every 1% increase in unemployment by an average of 1% will increase the Gini Index by 163.5% if other independent variables are deemed unchanged.

D. R2 Test

The multiple linear regression model above, then must be tested for accuracy or suitability the regression line (Goodness of Fit Test). Testing the accuracy of the regression line can be done by looking at the coefficient of determination (R2). The coefficient of determination can also be used to measure the proportion of the independent variables to the variation (fluctuation) of the dependent variable together. The results of statistical tests showed that the R2 of the regression model was 0.237. The acquisition of R2 value of 0.237 means that variations in population, minimum wages, and unemployment are able to explain the variation...
of the inequality of income distribution variable by 23.7%, while the remaining 76.3% is influenced by other factors outside the model.

E. Normality Test

Normality testing aims to determine whether in the regression model, confounding or residual variables have a normal distribution or not. According to (Ghozali, 2006), this normality assumption can be done by performing a normality test with statistical analysis according to the Kolmogorov-Smirnov (KS) test procedure. The results of normality testing can be seen in the following table:

Table 3. Results of the Research Variable Normality Test

<table>
<thead>
<tr>
<th>Unstandardized Residual</th>
<th>One-Sample Kolmogorov-Smirnov Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>165</td>
</tr>
<tr>
<td>Normal Parameters</td>
<td>Mean 0.000000</td>
</tr>
<tr>
<td></td>
<td>Std. Deviation 0.03984038</td>
</tr>
<tr>
<td>Most Extreme Differences</td>
<td>Absolute 0.036</td>
</tr>
<tr>
<td></td>
<td>Positive 0.036</td>
</tr>
<tr>
<td></td>
<td>Negative -0.030</td>
</tr>
<tr>
<td>Kolmogorov-Smirnov Z</td>
<td>1.464</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>0.982</td>
</tr>
</tbody>
</table>

Source: Research, (2018)

Based on the results of the statistical analysis of normality, it can be seen that the research variable has an Asymp Sig. (2-tailed) of 0.982 > 0.05 at the 95% degree of significance, it can be concluded that the data for each variable used in this study were normally distributed and met the requirements for further analysis.

F. Multicollinearity Test

The existence of multicollinearity is a violation of the classical assumption because it will cause the OLS estimator to be undetermined and the variants and standard errors to be infinite. To detect multicollinearity symptoms can be seen from the VIF (Variance Inflation factor) value. If the VIF value is less than 10, there will be no multicollinearity and if the VIF value is greater than or equal to 10, there will be multicollinearity. The multicollinearity test results can be seen in the following table:

Table 4. Multicollinearity Test Results

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Coefficients</th>
<th>Coefficients</th>
<th>Coefficients</th>
<th>Coefficients</th>
<th>Coefficients</th>
<th>Coefficients</th>
<th>Coefficients</th>
<th>Coefficients</th>
<th>Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>Unstandardized Coefficients</td>
<td>Standardized Coefficients</td>
<td>t</td>
<td>Sig.</td>
<td>Tolerance</td>
<td>VIF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>----------------------</td>
<td>----------------------</td>
<td>-------------</td>
<td>------</td>
<td>----------</td>
<td>-----</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>B 312</td>
<td>Std. Error 014</td>
<td>21 558</td>
<td>000</td>
<td>904</td>
<td>9634</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population</td>
<td>1.033E-10</td>
<td>000</td>
<td>026</td>
<td>110</td>
<td>913</td>
<td>104</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimum wage</td>
<td>4.567E-8</td>
<td>000</td>
<td>294</td>
<td>3670</td>
<td>000</td>
<td>885</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployment</td>
<td>1.635E-8</td>
<td>000</td>
<td>153</td>
<td>666</td>
<td>506</td>
<td>107</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Research, (2018)

Based on the results above, it can be seen that the VIF value of all independent variables is less than 10.00, so it can be concluded that there is no multicollinearity.

G. Autocorrelation Test

In a regression analysis it is possible to have a relationship between the independent variables itself or to be self-correlated. Autocorrelation problem detection procedure using the Durbin Watson test.
Table 5. Autocorrelation Test Results

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.487+</td>
<td>.237</td>
<td>.223</td>
<td>.03201</td>
<td>1.832</td>
</tr>
</tbody>
</table>

Source: Research, (2018)

Based on the results of the Durbin Watson test, the DW value was 1.832, while the du and dl limit values for this study were n = 165 and k = 3, namely (dl = 1.708, du = 1.782, 4-dl = 2.292, 4-du = 2.218).

This means that the DW value lies between du and 4-du, so it can be concluded that the regression equation model does not contain autocorrelation problems.

H. Heteroscedasticity Test

Heteroscedasticity testing aims to determine the difference in residual variance from the observation period to another observation period. If the variance from one observation to another is constant, it is called homoscedasticity and if it is different it is called heteroscedasticity. If the significance value is greater than 0.05, the conclusion is that there is no heteroscedasticity. If the significance value is smaller than 0.05, the conclusion is heteroscedasticity occurs.

Table 6. Heteroscedasticity Test Results

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>1</td>
<td>.047</td>
<td>.008</td>
<td></td>
<td>5,762</td>
</tr>
<tr>
<td>Population</td>
<td>2</td>
<td>-9.808E-10</td>
<td>.000</td>
<td>-.443</td>
<td>-1,862</td>
</tr>
<tr>
<td>Minimum wage</td>
<td>3</td>
<td>-9.661E-9</td>
<td>.000</td>
<td>-.113</td>
<td>-1,386</td>
</tr>
<tr>
<td>Unemployment</td>
<td>4</td>
<td>1.275E-8</td>
<td>.000</td>
<td>.217</td>
<td>.927</td>
</tr>
</tbody>
</table>

Source: Research Results, 2018 (Processed)

Based on the results of the Heteroscedasticity test with the Glejser method, the significance value of each independent variable is greater than 0.05, so it can be concluded that there is no heteroscedasticity.

V. CONCLUSION AND SUGGESTION

A. Conclusion

Based on the data analysis that has been carried out, it can be concluded that the variables that have been used by researchers to determine how the influence of each independent variable (Population X1, Minimum Wage X2 and Number of Unemployment X3) on Inequality in Income Distribution, in fact obtained results almost in accordance with the research hypothesis. The results of the data testing output using the SPSS program in the F test show that the Population Population, Minimum Wage and Unemployment variables simultaneously affect Inequality in Income Distribution, in the t test only the Minimum Wage variable has a partial effect on Income Distribution Inequality.

B. Suggestion

a. One of the ways to increase income distribution is by implementing economic development. Therefore, it is necessary to carry out the implementation of economic development in a sustainable and good manner, because the implementation of economic development will encourage economic growth, increase the standard of living of community members and increase the distribution of income for the community.

b. The government is expected to focus on pro-poor development policies without neglecting sustainable economic growth, with an emphasis on the development of the agricultural sector and the rural economy, promotion and development of the informal sector, development of small and medium enterprises (SMEs) through
local commodity industrial centers, agribusiness development and agro-industry to promote the agricultural sector.

c. Local governments also need to implement policies to increase labor and worker wages by re-adjusting the current minimum decent living needs due to inflation through the policy of increasing the district minimum wage (UMK) to reduce the large income gap between workers and entrepreneurs that occurs especially in the modern and urban sectors.

REFERENCES


