Analysis of Fiscal Decentralization Effect, Economic Growth, Regional Tax and Labor on Income Inequality in Central Sulawesi Province in 2011-2017 Period

1st Mohamad Ahlis Djirimu
Department of Economics & Development Studies, Faculty of Economics & Business, Tadulako University
Indonesia
ahlis.djirimu66@gmail.com

2nd Haerul Anam
Department of Economics & Development Studies, Faculty of Economics & Business, Tadulako University
Indonesia

3rd Zainal Arifin
Department of Economics & Development Studies, Faculty of Economics & Business, Tadulako University
Indonesia

4th Andi Darmawati Tombolututu
Muhammadiyah University of Palu
Palu, Indonesia

Abstract—Fiscal decentralization provides many advantages for the regions to set their own fiscal capacity. The local government has an opportunity to improve its economy efficiently because the government has provided useful knowledge in the allocation of resources. The Government may well provide public goods and services in accordance with the expected public. This study aims to analyze the impact of fiscal decentralization and economic growth on inequality in the region of 11 regencies/city in Central Sulawesi Province during the five-year implementation period, from 2011 to 2015 year. Variables examined its effect on inequality of the region is the degree of fiscal decentralization, the local tax rate, the amount of labor, as well as the economic growth rate of 11 regencies/city in Central Sulawesi Province. The results of the analysis conclude that fiscal decentralization has positive and statistically significant for 27.76245 on inequality between districts region/city in Central Sulawesi Province. During the 5 years of the implementation of fiscal decentralization in Central Sulawesi Province is empirically provable that the economic growth of 11 regencies/city in Central Sulawesi Province to increase each year, but the graph of economic growth increased annually actually increase inequality of the region that occur between regencies/city in the Central Sulawesi Province.

Keywords—Fiscal, Economics, Regional Tax, Labor

I. INTRODUCTION

The debate about decentralization covers a lot of issues. In relation to macroeconomic management. According Simanjuntak (2010), key issues that stand out are the effects of decentralization on economic growth, equity, inflation, and public services. Some economists believe that fiscal decentralization encourages growth, improve equity, and improve the quality of public services and social welfare. Others believe that decentralization may be able to improve accountability and efficiency, although the process tends to complicate macroeconomic management, slowing growth, increasing inequality and inequality, as well as aggravate public services and social welfare. The conclusion is ambiguity was not separated from the multidimensional characteristics of fiscal decentralization.

The basic principles of fiscal decentralization in Indonesia at first is "Money Follows Functions", which is the principal function of public service be offered, with the funding support center via submission sources of revenue to the area. Implementation of the Fiscal Decentralization with the principles of Money Follow Functions eventually transformed into the principle of the Money Follow Program. It is marked by the call of President Joko Widodo in Kompas daily (02/11/2016), instructed that the preparation of the 2017 budget year starting in the Government Work Plan (RKP) changed from previous years. In essence, he asked the minister who controls the budget, which is not every directorate to bottom has a budget, but given that does need a budget.

Decentralization principle of giving greater autonomy to the local government to be able to solve the problems of development in the area, so the impact on economic growth (Oates, 1972). Further implications, economic growth is expected to promote a change in the economic structure characterized by a shift in the structure of employment by sector, changes in the sectoral composition of regional income, income equity and distribution, as well as changes in the structure of domestic demand.
However, it seems that during the implementation of fiscal decentralization, the effects of growth and economic progress is stronger in regions rich in natural resources as found by Waluyo (2007), that fiscal decentralization in Indonesia more powerful influence on economic growth in the area of industrial and resource-rich regions. The same phenomenon is found by Hammond and Tossn (2011) in the United States, that decentralization is having an impact on the central area of industry and services, but were significant for non-metropolitan areas.

Based on the above empirical findings associated with the implementation of fiscal decentralization in Central Sulawesi, invisible conditions are very contrast, although the wealth of natural resources (agriculture and mining) is quite uneven. Agricultural potential spread in all districts, while the potential of fisheries are in three areas, namely the Celebes Sea, Gulf of Tomini and Tolo Bay. Oil and gas and mineral potential in the eastern region of Central Sulawesi (Banggai and Morowali), as well as on the west coast of Central Sulawesi (Donggala, Tolitoli and Buol) large enough potential gold mine. Potential areas that the condition has not made significant progress, the processing industry has not developed. Indeed, the available raw materials can be used for industrial activities.

Whereas the economic progress expected by all countries (regions), namely a shift in the sector (changes in the structure of production) economy, a marked decline in the role of the primary sector and the increasing role of the secondary sector, both in the Gross Domestic Product (GDP) and in employment. Djiojohadikusomo (1994) revealed that the changes in the structure of an economy with regard to changes in the structure of production, employment, inequality intersectoral, interregional, and interdistribution revenue. Furthermore, we will encourage the increase in revenue, resulting in a shift in the composition of the product, that is the shift between the sectoral contribution and on productive employment (from the primary sector to switch to the secondary and tertiary sectors).

In addition, if the structure of the region's economy is still dominated by the primary sector, the tendency will happen inequality are quite high, even if decentralization was run. The study results Rodriguez-Pose and Ezcurra (2010) reinforces the assumption that decentralization in developing countries (primarily agricultural country) significantly affects the increase in inequality. Nugrahanto and Muhyyidin (2008), found the results do not differ that fiscal decentralization increases regional inequality in Indonesia, including in Central Sulawesi. These findings are certainly contrary to the purpose of fiscal decentralization, whereas the fiscal decentralization policy is basically one of the solutions to solve the problem of inequality, because the transfer intergovernmental decentralization done to minimize vertical and horizontal imbalance. Meanwhile, the level of economic disparities between regions (districts/cities) by dispersion ratio for each Province in Sulawesi shows that levels of inequality district/town in Central Sulawesi Province tends to increase (Bappenas,2013).

Based on the background that has been formulated above there are two main things that become problems in this study that needs to be studied to find out more about the implementation of fiscal decentralization in the Province of Central Sulawesi. The first, related to the implementation of fiscal decentralization in the Province of Central Sulawesi, emerging phenomenon of the economic growth of Central Sulawesi Province which is increasing every year after the implementation of the fiscal decentralization, but on the other hand happens regional income inequality between districts/cities in Central Sulawesi Province. Therefore, research question that arises is "whether the implementation of fiscal decentralization and economic growth in the regions (district/city) Central Sulawesi Province to significantly affect the inequality of the region and what the cause of inequality in the region of Central Sulawesi Province in the period 2011-2015 year?". Second, Is Local Tax and Labor which is the implementation of the Fiscal Decentralization variables significantly influence inequality in the region of Central Sulawesi Province in the period 2011-2015 year?"

This study aims to analyze the impact of fiscal decentralization and economic growth on inequality in the region of 11 regencies/city in Central Sulawesi Province during the five-year implementation period, from 2011 to 2015. Variables examined its effect on inequality of the region is the degree of fiscal decentralization, the local tax rate, the amount of labor, as well as the economic growth rate of 11 regencies/city in Central Sulawesi Province.

II. LITERATURE AND FRAMEWORK FOR THINKING


A. Fiscal Decentralization and Inequality

In the context of decentralization, redistribution problem has two dimensions, namely equality horizontal (between regions) and equality in the region. Horizontal equity refers to the condition where the Regional Government has the same capacity in the provision of public goods (Ebel and Yilmaz, 2002). There are two main factors affecting the horizontal inequality, the tax base are very different between the region and the characteristics of the region, namely the two factors greatly affect the determination of fees and provision of public goods.

A positive relationship between inequality and fiscal decentralization region is the dominating opinion among researchers. Slinko (2002) describes a positive relationship between fiscal decentralization and inequality of the region through the nature of the mobility of taxpayers, the people (taxpayers) have the ability to "voting by feet" (to be released) in selecting the area where it will be occupied by two considerations that tastes and the amount of tax in the area, so the more developed regions (wealth regions) with facilities and better public services will be more attractive to be a place to stay compared to the less developed regions (poor regions).
B. Inequality Versus Growth

There is a theory that said, there is a trade off between inequality and growth. But the reality proved in Developing Countries in recent decades associated with low growth. In many Developing Countries is no trade off between growth and inequality.

Williamson, stated that in the 19th century in American inequality arising little impact on the accumulation of capital and to the UK even no effect at all. But inequality arising plays an important role in the difficulty of human capital accumulation.

There are various ways affect the economic growth of inequality. According to Fields whether there is a trade off between economic growth and inequality depends on the type of data used.

C. Income Inequality and Taxation Base

A study conducted by Aizenman and Jinjarak (2012) investigated the relationship between income inequality and taxation basis among countries in the period of the 2000s, and correlates with the level of dependence on debt. The results of these studies indicate that there is a negative correlation between income inequality on the basis of taxation, and inequality in higher revenue related to the basis of taxation is lower, the fiscal space of real (de facto fiscal space) are smaller, and their dependence on higher debt.

In order to be able to explain the relationship between the base of taxation with income inequality, Aizenman and Jinjarak (2012) conducted the econometric analysis in 50 countries with a comprehensive record of the key variables such as: the Gini coefficient, the base of taxation and fiscal space until 2011. Then it was discovered that higher inequality is linked to the base of taxation that are smaller in the period under study; and that the impact of inequality increased from 2007 to 2011. The effect of imbalance to fiscal space to work through taxation base line, and a great influence. 1 standard deviation increase in the Gini coefficient, or 10 on a scale of 0-100, related to the taxation base on average lower by 21 per cent of GDP in 2011.

III. THEORETICAL THINKING

Policy of regional autonomy and fiscal decentralization has been running since 2001 through Act number 22 of 1999 and Act Number 25 of 1999 which regulates the balance of powers and the balance of the financial authority between the central government and local governments are then revised by the Act Number 32 of 2004 and Act Number 33 of 2004 which was subsequently replaced by Law Number 23 of 2014.

Theory Peacock and Wiseman and Law Wagner assumes that indicators of fiscal decentralization is the economic dimension is taken from government revenues and expenditures, in this study the economic dimension is taken from the receipt of the government to the nominal value of the variables is more valid and realistic with the assumption that government revenues are used overall as government expenditure.

Variables that will be examined are: inequality of the region whose value is taken in accordance with research Bonet (2006), namely Jaime Bonet Inequality Index and conformed to the Kuznets theory of economic growth will affect the inequality of the region. Variable-variable Independent taken is economic growth whose value is taken according to the research Woller and Phillips (1998) and in accordance with the theory of the growth of Harrod-Domar, the degree of fiscal decentralization, local taxes, and the amount of labor which is determined in accordance with previous studies in this penlitian and also adapted to Law Number 32 of 2004 and Act Number 33 of 2004 (Act Number 23 of 2014, revised).

IV. HYPOTHESIS

Formulation of the hypothesis of this study are as follows:

Hypothesis 1: There is no significant relationship and a positive influence on regional economic growth of the region inequality;

Hypothesis 2: There is no significant correlation and remains negative influence on the degree of fiscal decentralization on the inequality of the area;

Hypothesis 3: There is no significant relationship and the negative impact of local taxes to the inequality of the area;

Hypothesis 4: There is no significant relationship and the negative impact of labor against the inequality of the region;

Hypothesis 5: There no significant relationship of all independent variables on inequality territory.

V. RESEARCH METHOD

A. Types and Sources of Data Research

This research is a kind of mix between quantitative data were then explained or interpreted in the form of descriptive data. The data will be used in this research is secondary data from data sources related to the use of panel data.

1. Research variable

- The dependent variable in this study is the variable region Inequality (KW);
- The independent variables in this study consisted of Economic Growth (PE), Fiscal Decentralization (DF), Local Taxes (PD) and Labor (TK).

2. Operational definitions

- Inequality is measured using a proxy territory in accordance with that used in the research conducted by Bonet (2006) which is based on the concept of the size of the gap region the GDP per capita relative.
- Economic growth (PE), means that the development of activities in the economy that led to the goods and services produced in the community and increase the prosperity of society. The units of the variables is the percent of economic growth.
- Fiscal Decentralization (DF), Degrees measurement Fiscal Decentralization in this research is done by using the approach reception, which measures the degree of fiscal decentralization of local revenue share of the total regional revenues. The units of the fiscal decentralization variable is percent.
• Local Tax (PD) in this study were approached by the ratio of total taxes each district/city as percentage to GDP districts/cities. This approach follows the research Jin and Zou (2000). The units of local taxes is percent.
• Manpower (TK) is used to represent a resource that affects a region of the growth rate. In this study, the amount of labor is measured by the total labor force per year, region. Based on the understanding of CPM, is the labor force is the population aged 10 years and over, who are active in economic activities. Variable labor is the soul.

3. Analysis method
Methods of data analysis in this study using multiple linear regression analysis and hypothesis testing using Eviews software assistance 10. Multiple linear regression analysis aims to determine how the influence of independent variables on the dependent variable, in the existing equation will be formed in the econometric model regression analysis as follows:

\[ \text{KW}_{it} = a_0 + \beta_1 \text{PE}_{it} + \beta_2 \text{DF}_{it} + \beta_3 \text{PD}_{it} + \beta_4 \text{TK}_{it} + \epsilon_{it} \]

Where:
- \( \text{PE} \) = Growth
- \( \text{KW} \) = Inequality Territory
- \( \text{DF} \) = Fiscal Decentralization
- \( \text{PD} \) = Local Tax
- \( \text{TK} \) = Labor

VI. RESULTS AND DISCUSSION
A. Data Analysis
This analysis uses secondary data, the regression model independent variables consisting of Fiscal Decentralization (DF), Economic Growth (PE), Local Taxes (PD) and Labor (PD), while the dependent variable is the variable Inequality Region (KW). Hypothesis testing is done by multiple regression analysis Eviews software assistance 10.

B. Regression Model Estimation Effect of Economic Growth, Fiscal Decentralization, Local Tax and Labor Against Regional Inequality

<table>
<thead>
<tr>
<th>Analysis</th>
<th>F-Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>DF</td>
<td>27.76245</td>
</tr>
<tr>
<td>Prob (F-statistic)</td>
<td>0.000000</td>
</tr>
</tbody>
</table>

From Table I above shows the value of Prob (F-statistics) in the regression results for 0.0000 and alpha 0.05, or 5 percent, the value of Prob (F-statistics) <0.05 means that \( H_0 \) is accepted or significant or overall outcome variables independent of the dependent variable has significant influence.

<table>
<thead>
<tr>
<th>Analysis</th>
<th>t-statistic</th>
<th>t-table</th>
<th>probability</th>
<th>( \alpha = 0.05 )</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE</td>
<td>9.756668</td>
<td>1.94318</td>
<td>0.0000</td>
<td>0.05</td>
<td>Significant</td>
</tr>
<tr>
<td>DF</td>
<td>10.57999</td>
<td>1.94318</td>
<td>0.0000</td>
<td>0.05</td>
<td>Significant</td>
</tr>
<tr>
<td>PD</td>
<td>-0.309009</td>
<td>1.94318</td>
<td>0.7589</td>
<td>0.05</td>
<td>Not significant</td>
</tr>
<tr>
<td>TK</td>
<td>-3.086732</td>
<td>1.94318</td>
<td>0.0037</td>
<td>0.05</td>
<td>Significant</td>
</tr>
</tbody>
</table>

From Table II, it can be analyzed that the probability of a t-statistic is less than the alpha value of 0.05 means \( H_0 \), the independent variable of Fiscal Decentralization (DF), Economic Growth (PE) and Labor (TK) has a significant influence on the dependent variable Regional Disparities (KW). While Variables Local Tax (PD) had no significant effect on the variable region Inequality (KW).

VII. DISCUSSION OF RESULTS
• Inverted U curve theory (U reverse) Kuznets, ie a country's economic growth will drive increased inequality between regions within the country in the early stages of economic development, and will gradually decline when economic development reaches a stable point (steady state).
  In 11 districts/municipality in Central Sulawesi Province, each district/city have significantly increased economic growth as evidenced by previous economic growth equation models. But the phenomenon is the development of each region in the Province of Central S, ulawesi still in the process towards a steady state.
position, so that economic growth increased in each District/City also increased inequalities between regions in Central Sulawesi Province.

This conclusion can be evidenced from the calculation of the effect of the imbalance of regional economic growth area, which is listed on the inequality equation econometric model of the area, where the coefficient of economic growth worth 0.007208, Which means that each regional economic growth increased by 0.007208. It will encourage an increase in inequality of the region by 1 percent.

It can be concluded from the theory and empirical studies that a significant regional economic growth and positive effect on inequality in the region of 11 regencies/city in Central Sulawesi Province: Local government expenditures obtained from local revenue sources, then when per capita income increases will encourage the receipt area which is an indicator of the degree of fiscal decentralization an increased area. Then, it can be described that an increase in the degree of fiscal decentralization will encourage government spending on public services that will boost per capita income.

Fiscal decentralization implemented in 11 regencies/city in Central Sulawesi Province showed a significant and positive influence to encourage the per capita income in these regions increased. Financial management policies independently provide good results against each regencies/city in the Province of Central Sulawesi. Different premises influence of economic growth on inequality, increasing the degree of fiscal decentralization in each region will gradually encourage inter-regional equalization. This can be explained by the theory of growth poles (Tarin, 2004): the more poles of growth in a dining area will increasingly mean the area of income distribution, although slum areas will appear.

Through empirical studies conducted in 11 regencies/city in Central Sulawesi Province, can be seen through the calculation of the influence of the degree of fiscal decentralization on inequality of the region. Where the inequality equation econometric model region coefficient value of the degree of fiscal decentralization 0.030636 interpret that the increase in the degree of fiscal decentralization 0.030636 will encourage inequality of the region increased by 1 percent.

It can be concluded from empirical studies based on the study of theory, implementation of fiscal decentralization in Central Sulawesi Province is still in the early stages that is every increase in fiscal decentralization will affect the increase in regional inequality. This occurs because the poles of growth in a region still less so that regional income distribution is still uneven and still give rise to slums (slum), but gradually this area will be reduced in line with the emergence of growth poles of the new economy.

- Wagner put forward a theory about the development of greater government spending as a percentage of GNP also is based also the observations in the countries of Europe, America and Japan in the 19th century. Wagner expressed his opinion in a legal form, as follows: in an economy, when per capita income increases, the relative government spending will also increase.

The increase in income per capita should be controlled by the government, in order to reduce the number of inequality (disparity) that occurs between the regions. The role of government through taxation is needed to facilitate the flow of income distribution to areas where growth is low.

In 11 regencies/city in Central Sulawesi Province managed to reduce the amount of taxation inequality between regions in Central Sulawesi Province. This can be proved from the calculation of the effect of the ratio of (collection) of local taxes to inequality region, which can be seen in the area of inequality equation econometric model coefficients for local taxes -0.009106, interpret the increase ratio (collection) of local taxes 0.009106 will encourage inequality of the region decreased by 1 percent.

- In the Production Function Theory Neo-Classical (Sukirno, 2004), labor is one factor inputs (input factors: capital and labor). Which means that labor is one indicator to determine the productivity of the production. In the macro sector workforce to be an indicator of economic growth, because labor would generate revenue, revenue generated by each individual work force is called the per capita income. The per capita income would be consumed, invested, and used to finance government programs through taxes as a source of government revenue.

Production Function Theory Neo-Classical (Sukirno, 2004), also explained that the workforce will affect the growth of production, which is a marginal increase the number of workers will increase the marginal production. Marginal increase in production will continue to increase if the number of workers continue to be added until it reaches maximum production quantities.

An increasing number of workers will increase per capita income, so it will encourage a decrease in inequality between regions due to the level of per capita income will gradually be evenly distributed in each area with full assumption of employment.

The statement can be proved by empirical studies, through the influence of the amount of labor against inequality region, namely on an econometric model of the labor coefficient -0.00000588 interpret the increase in the workforce at 0.00000588 will encourage inequality of the region decreased by 1 percent.

**VIII. CONCLUSIONS AND SUGGESTIONS**

1. **Conclusion**

- Regional inequality that occurred in Central Sulawesi Province, is influenced by two factors: Economic Growth and Fiscal Decentralization. First, economic growth has a positive influence on Inequality significant and Territory. This is due to different mutual inter ability of each region or area in Central Sulawesi Province in terms of economic growth. Disparities in economic growth across the region will also encourage an increase in inequality of the region. Second, the Fiscal
Decentralization had a significant and positive relationship towards Territory Inequality. This means that an increase in the degree of fiscal decentralization will push the region imbalance between regencies/city in Central Sulawesi Province, which means fiscal decentralization in Central Sulawesi Province is still in the early stages, where any increase in fiscal decentralization will affect the increase in regional inequality. This occurs because the poles of growth in a region still less so that regional income distribution is still uneven and still give rise to slums. But gradually this area will be reduced in line with the emergence of growth poles of the new economy. The conclusion of the hypothesis by researchers received. Then it can be interpreted that economic growth and fiscal decentralization significantly affect the inequality of the region positively.

- Local Tax ratio is not significant and affect negatively to inequality in the region of 11 regencies/city in Central Sulawesi Province. that is to say, indirectly any increase in Regional Tax ratio will decrease inequality in the region of 11 regencies/cities in Central Sulawesi Province. Then, from the conclusion by researchers hypothesis is rejected. Because through regression testing can be interpreted that affect local tax rates are not significantly and negatively to inequality territory.

- An increasing number of employment significantly and negatively affect the inequality of the region. That is, any increase in the workforce will lead to a decrease in the level of inequality between regions in 11 regencies/city in Central Sulawesi Province. So from this conclusion by researchers hypothesis is accepted.

2. Suggestion

11 Regencies/City Government and the Provincial Government in the Province of Central Sulawesi have to maximize the role of fiscal decentralization in order to boost economic growth in their respective regions.

11 Regencies/City in Central Sulawesi Province, must grow new jobs in order to absorb the number of workers has increased every year, so that the marginal productivity of labor has not decreased even to achieve a negative point.

Control of the ratio of local taxes, development of programs of fiscal decentralization and increased absorption of labor should be optimized by each local government district/city in Central Sulawesi Province, in order to reduce the level of inequality in the region of Central Sulawesi Province.

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