

**ANALYSIS OF THE EFFECT OF ECONOMIC GROWTH, INVESTMENT, AND
HDI, ON INCOME INEQUALITY THROUGHOUT SULAWESI**

Kurnia Damayanti Jamada¹, Syarwani Canon², Fitri Hadi Yulia Akib³

¹Department of Economic Development, Faculty of Economics, Gorontalo State University
Gorontalo City 96115, Indonesia

²Department of Economic Development, Faculty of Economics, Gorontalo State University
Gorontalo City 96138, Indonesia

²Department of Economic Development, Faculty of Economics, Gorontalo State University
Gorontalo City 96135, Indonesia

✉Corresponding Author:

Author's name: Kurnia Damayanti Jamada¹

E-mail: jamadakurniadamayanti@gmail.com

Abstract

This research is at the center to determine the effect of economic growth, investment, and HDI on income inequality. The data used in this research was secondary data in 6 provinces in Sulawesi, for the period 2010-2019, sourced from Statistics Indonesia. The method used was multiple regression analysis using panel data.

The results of the analysis show that Economic Growth has a negative and significant effect on income inequality in Sulawesi. The result of this research proves that economic growth has a direct effect on income inequality. Economic growth is one of the description of development in various economic sectors with the aim of increasing people's income and overcoming level of economic inequality. Investment has a negative but insignificant effect on income inequality in Sulawesi. Increased investment does not have a direct effect on income inequality in Sulawesi. Investment in Sulawesi is only centered on certain regions, and there is no equal distribution of development in each region in Sulawesi so that only certain regions can develop their economy. HDI has a direct on income inequality in Sulawesi.

Keywords: Economic Growth, Investment, HDI, Inequality

1. INTRODUCTION

Income inequality is a high-income group and a low-income community group which is one of the big problems in many developing countries. Inequality cannot be eradicated,

because inequality must always exist, the only difference is how much inequality occurs in each region... Inequality can only be reduced to a level that is acceptable to a particular social system so that harmony within the system is maintained in the growth process.

Sulawesi is an island in the middle of the Maluku Islands and the island of Borneo. The eleventh largest island in the world is the island of Sulawesi consisting of North Sulawesi, Central Sulawesi, South Sulawesi, Southeast Sulawesi, Gorontalo and West Sulawesi. The following table shows the Gini Ratio between Provinces in Sulawesi

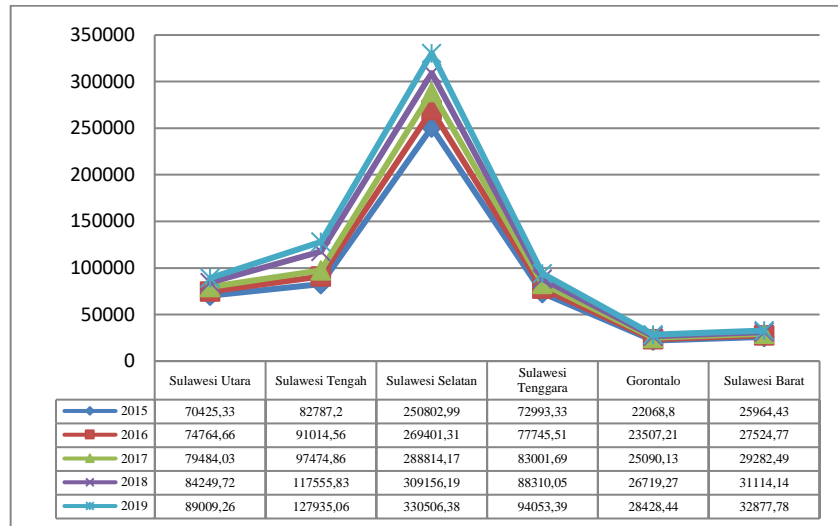
Table 1.1
Gini Ratio Between Provinces in Sulawesi 2015-2019

province	Gini Ratio				
	2015	2016	2017	2018	2019
North Sulawesi	0.366	0.379	0.394	0.372	0.376
Central Sulawesi	0.370	0.347	0.345	0.317	0.330
South Sulawesi	0.404	0.400	0.429	0.388	0.391
Southeast Sulawesi	0.381	0.388	0.404	0.392	0.393
Gorontalo	0.401	0.410	0.405	0.417	0.410
West Sulawesi	0.362	0.371	0.339	0.366	0.365

Source: BPS statistics center

Based on the table above, we can see the development of the Gini Ratio in Sesulawesi from 2015-2019, where in 2017 the Gini ratio in South Sulawesi province was 0.429 indicating a moderate level of inequality.

One of the indicators used to measure the economic growth of a region in a certain period is the level of GRDP. Throughout 2019 BPS noted that the largest economic growth was in Sulawesi

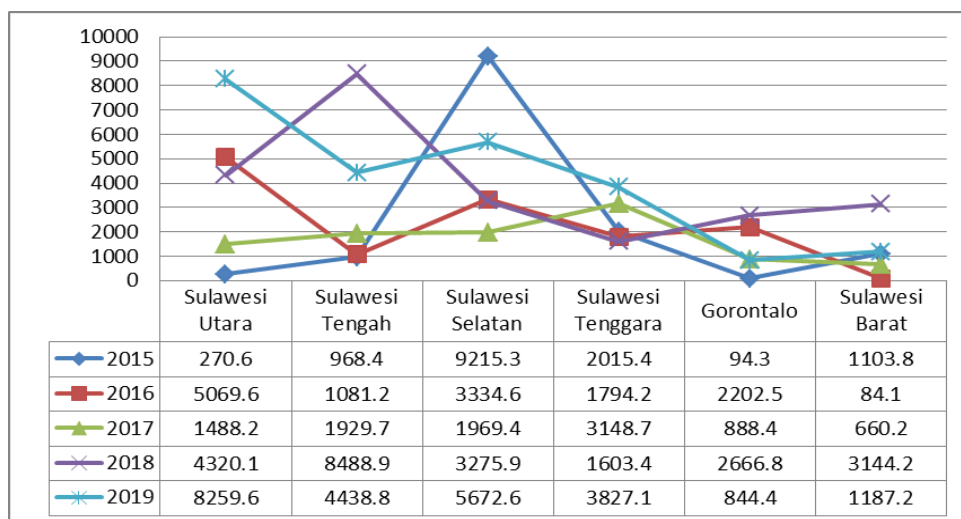


Source: Statistics center BPS

Figure 1.1: Inter-provincial GRDP in Sulawesi At Constant Prices in 2015-2019

Based on the graph above, it can be seen that the highest economic growth rate during 2015-2019 was in South Sulawesi Province, while the lowest economic growth was in Gorontalo Province. The low economic growth of the province in Gorontalo can be influenced by several factors, both factors originating from the region itself (internal factors) and factors originating from other regions (external factors).

Investment is investment in a particular company. The additional investment from domestic and abroad will be able to absorb labor. Investment comes from domestic investment and foreign investment. This can improve the process of producing goods and services. So that workers get wages and workers have purchasing power.



Source: Statistics center BPS

Figure 1.2: Inter-provincial investment in Sulawesi in (Billion Rupiah) 2015-2019

Based on Graph 1.2, it can be seen that inter-provincial investment in Sulawesi tends to increase but fluctuates, which means that the increase in investment does not always increase but in certain years there is a decrease. Investment developments usually tend to increase, of course influenced by various factors, both from the condition of the location, natural resources and human resources in the area. In 2015 the highest level of investment was in South Sulawesi Province.

Improving people's living standards or often known as the Human Development Index (HDI) can make economic development successful. HDI low or high will be differentiated on the level of productivity. The problem that occurs is that the HDI in each region is different, this makes the HDI one of the factors that affect the inequality of income inter-regional income.

Based on data released by the Central Statistics Agency (BPS) in 2015-2019 in table 1.1, it shows that the HDI distribution or known as the Human Development Index (IPM) of North Sulawesi Province ranks first with the HDI in 2015 of 70.39 and in 2019 it was 72.99.

Table 1.2

Inter-Province Human Development Index in Sulawesi 2015-2019

province	Human Development Index				
	2015	2016	2017	2018	2019

North Sulawesi	70.39	71.05	71.66	72.20	72.99
Central Sulawesi	66.76	67.47	68.11	68.88	69.50
South Sulawesi	69.15	69.76	70.34	70.90	71.66
Southeast Sulawesi	68.75	69.31	69.86	70.61	71.20
Gorontalo	65.86	66.29	67.01	67.71	68.49
West Sulawesi	62.96	63.60	64.30	65.10	65.73

Source: BPS statistics center

This difference can make the HDI a tool for measuring inequality. There are three indicators which are the composition as a comparison for the HDI measurement, namely the level of health, education level and standard of living where the three indicators influence each other. So to increase the HDI, the government must pay attention to these three elements in addition to paying attention to other supporting factors, such as infrastructure, job opportunities and economic growth.

2. Research purposes

To determine the effect of economic growth, investment, and HDI on income inequality throughout Sulawesi,

B. Study of Theory and Research Hypotheses

1. The Theory of Income Inequality Between Regions

In the development of a region, inequality is one of the real problems that cannot be eliminated. Improving the quality of life is an encouragement to underdeveloped regions to reduce inequality so that they are not left far behind from the surrounding areas

If regions compete to improve their quality of life, it will have a positive impact on inequality. However, if the increase in inequality between regions will cause a negative impact, namely the weakening of solidarity and stability as well as unfair views due to high equality (Todaro and Smith, 2004).

The Gini coefficient is used to analyze inequality which is an aggregate measure where the numbers range from zero (perfect equality) to one (perfect inequality) (Todaro and Smith, 2004:226).

2. Research Hypothesis

The hypothesis is a statement that is temporary, about the existence of a certain relationship between the variables used. So the hypothesis for this research can be assumed that economic growth, investment and HDI have a negative effect on income inequality throughout Sulawesi

C, Method

The author uses a quantitative approach method. In this study income inequality (Y) is used as the dependent variable. While the independent variables used are economic growth (X₁), investment (X₂), and human development index (X₃). The method used by researchers to obtain data in this study is where the process of collecting data from existing data in government institutions such as the Central Statistics Agency, economic journals and reference books on economic growth, investment and HDI. This study uses regression equation analysis, using multiple analysis methods with panel data.

D. Results

Table 4.1
Regression Analysis Results

Dependent Variable: LOG(GR?)

Method: Pooled Least Squares

Total pool (balanced) observations: 60

Variable	Coefficient	Std. Error	t-Statistics	Prob.
C	-9.953516	3.955296	-2.516503	0.0150**
LOG(Yg?)	-0.486334	0.172325	-2.822185 *	0.0068**

				0.3966N
LOG(I?)	-0.005150	0.006023	-0.854955	S
LOG(IPM?)	3.423251	1.374062	2.491337	0.0160**
<hr/>				
Fixed Effects (Cross)				
SULUT--C	-0.095294			
SULTENG--C	0.080608			
SULSEL--C	0.655056			
SULTRA--C	0.016123			
GORONTALO--C	-0.364089			
SULBAR--C	-0.292404			
<hr/>				
Effects Specification				
<hr/>				
Cross-section fixed (dummy variables)				
<hr/>				
				-
R-squared	0.678106	Mean dependent var		0.945733
Adjusted R-squared	0.627613	SD dependent var		0.082962
				-
SE of regression	0.050626	Akaike info criterion		2.991212
				-
Sum squared resid	0.130714	Schwarz criterion		2.677060
				-
Likelihood logs	98.73636	Hannan-Quinn Criter.		2.868330
F-statistics	13.42967	Durbin-Watson stat		1.964337
Prob(F-statistic)	0.0000***			

Source: Data processed 2021

***) 10%, **) 5%, *) 1%, ns= not significant

Based on the output results in Table 4.1, the FEM model estimation equation is obtained as follows.

1. Income inequality without being affected by any variables in the model remains worth - 9.953516 percent *ceteris paribus*
2. The value of the coefficient of the variable constant of economic growth is minus 0.486334, this means that for every additional economic growth, the value of income inequality in Sulawesi will decrease by 0.486334 percent.

3. The value of the coefficient of investment constant is -0.005150, this means that for every additional investment, the value of income inequality throughout Sulawesi will decrease by 0.005150 percent.
4. The value of the constant coefficient of HDI is 3.423251, this means that every additional HDI, the value of income inequality throughout Sulawesi will increase by 3.423251

E. Discussion

1. The Effect of Economic Growth on Income Inequality in Sulawesi

The variable of Economic Growth has a negative and significant effect on Income Inequality in Sulawesi. So it can be concluded that if a 1% increase in Economic Growth can reduce Income Inequality in Sulawesi by 0.486334. Testing the results of this study is in accordance with the hypothesis which states that Economic Growth has an effect on Income Inequality in Sulawesi.

2. The Effect of Investment on Income Inequality in Sulawesi

Investment variable has a negative and insignificant effect on Inequality in Sulawesi with Coefficient 0.005150 This means that if the investment increases by 1%, it will reduce the Income Inequality in Sulawesi by 0.005150 percent. This test is in accordance with the hypothesis which states that investment has a negative effect on income inequality throughout Sulawesi.

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3. Effect of Human Development Index (HDI) on Inequality

The Human Development Index variable has a positive and significant effect on Income Inequality in Sulawesi. So it can be concluded that if a 1% increase in the Human Development Index can increase Income Inequality in Sulawesi by 3.423251.

F. Conclusion

Based on the results of the tests that have been carried out, it can be concluded as follows:

1. The variable of Economic Growth has a significant influence on Income Inequality in Sulawesi because the p-value value is smaller than the significant level (0.01), and the coefficient value is -0.486334, this means that for every additional economic growth, the value of income inequality in Sulawesi will decrease by 0.486334.

2. The investment variable does not have a significant effect on income inequality in Sulawesi because the p-value value is greater than the significant level (0.10), and the coefficient value is 0.005150, this means that every additional investment, the value of income inequality in Sulawesi will decrease by 0.005150.
3. The HDI variable has a significant influence on Income Inequality in Sulawesi because the p-value is smaller than the significant level (0.05), and the coefficient value is 3.423251, this means that every additional HDI, the value of income inequality in Sulawesi will increase by 3.423251.

Suggestion

From the results of the analysis and conclusions above, the suggestions in this study are:

The suggestions put forward by the researchers are as follows:

1. Provincial governments throughout Sulawesi are expected to be able to increase the potential of each region to realize economic improvement in order to reduce the level of income inequality in the province on the island of Sulawesi.
2. The government in the Sulawesi island area must be more open with the entry of investors to the island of Sulawesi, this is done to help finance underfunded sectors, Thus the income growth rate will increase.
3. Provincial governments throughout Sulawesi are expected to pay attention to the human growth index in order to realize quality human resources in order to reduce the income inequality of Sulawesi Island.

G. Confession

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