Analysis of Income Inequality and Its Effect on Poverty Through Economic Growth

(Case of Talaud Islands District)

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***Abstract*—Economic growth is a continuous process of increasing output per capita in the long run. Economic growth is one indicator of development success, the main source of which is improving people's living standards. Therefore the higher economic growth is usually the higher the welfare of the community. The success or failure of development programs in developing countries is often judged by the high and low levels of growth in national output and income. High economic growth accompanied by income distribution is the goal of each region. The economy is considered to experience growth if all real service fees for the use of production factors in a certain year are greater than in the previous year. In other words the economy is said to experience growth if the real income of the community in a given year is greater than the real income of the community in the previous year. Economic growth shows the extent to which economic activity will generate additional community income in a given period. Because economic activity is basically a process of using factors of production to produce output, this process will in turn produce a flow of services to factors of production owned by the community, with economic growth, it is expected that people's income as owners of factors of production will also increase.**

Keywords: economic growth, poverty, income

I. Introduction

Economic growth is a continuous process of increasing output per capita in the long run. Economic growth is one indicator of development success, the main source of which is improving people's living standards. Therefore the higher economic growth is usually the higher the welfare of the community. The success or failure of development programs in developing countries is often judged by the high and low levels of growth in national output and income [1]. High economic growth accompanied by income distribution is the goal of each region. The success of economic development can be seen from the increase in consumption due to increased income [2].

The economy is considered to experience growth if all real service fees for the use of production factors in a certain year are greater than in the previous year. In other words the economy is said to experience growth if the real income of the community in a given year is greater than the real income of the community in the previous year [3].

In other words, economic growth refers more to changes in a quantitative nature (quantitative change) and is usually measured using data on Gross Domestic Product (GDP) or income or the final market value (total market value) of final goods and services (final goods and services) produced from an economy over a certain period of time (usually one year).

Talaud Islands Regency is one of the districts in North Sulawesi Province, Indonesia with the capital city of Melonguane. The Regency originated from the expansion of the Sangihe and Talaud Islands Districts in 2000. The Talaud Islands Regency is located north of Sulawesi Island. This region is the northernmost region in eastern Indonesia, bordering the Davao del Sur region, the Philippines to the north. Talaud Islands Regency is a maritime area with a sea area of around 37,800 Km² (95.24%) and a land area of 1,251.02. There are three main islands in the Talaud Islands Regency, namely Karakelang Island, Salibabu Island, and Kabaruan Island.

The problem of income inequality is often also summarized, that the real income of the rich continues to increase while the poor continues to decrease. This means that the real income of the rich grows faster than the poor [4]. From the description above it can be concluded that the income gap is the difference in the amount of income received by the community resulting in greater income differences between groups within the community. As a result of these differences, a gap will be seen, namely the rich will get richer and vice versa, the poor will get worse. Income inequality occurs due to the strength of the reverse impact and the weak spread impact in developing countries [5].

Economic disparity or inequality in income distribution between high-income groups and low-income groups and the level of poverty or the number of people below the poverty line [6]. This difference causes inequality, so efforts are needed in economic development to create the highest growth possible, and also eliminate or reduce the level of poverty and income inequality. Employment opportunities for the community will provide income to meet their living needs [1].

II. Theoretical Framework

A. *Theories of Economic Growth*

Economic growth shows the extent to which economic activity will generate additional community income in a given period. The economy is considered to have experienced growth if all real remuneration for the use of production factors in a certain year is greater than the real income of the community in the previous year. Economic growth is an increase in the long-term capacity of a country to provide economic goods to its population [5].

Economic growth means the development of activities in the economy which causes the goods and services produced to increase and the prosperity of the community to increase. Economic growth is also the level of increase in real GDP or GNI in a certain year when compared to the previous year.

Schumpeter's theory [7] states that economic growth is a spontaneous and intermittent change in a stationary state that constantly changes and replaces the existing balance situation. Economic development refers to the problems of developing countries, while economic growth is a long-term change slowly and steadily that occurs through the increase of savings, income and economic growth refers to the problems of developed countries.

According to Tarigan [8] regional economic growth is an increase in community income that occurs in an area, which is an increase in all added value that occurred in the region. The increase in income is measured in real value, meaning that it is expressed in constant prices. It also illustrates the compensation of 20 services for the factors of production operating in the region (land, capital, labour and technology), which means roughly describing the prosperity of the area. The prosperity of an area is not only determined by the amount of added value created in the region but also by how much transfer-payment occurs, that is, the portion of income that flows outside the region or receives funds flowing outside the region.

B. *Poverty*

Poverty is a condition of economic inability to meet the standard of living of the average community in an area. This inability condition is characterized by the low ability of income to meet basic needs in the form of food, clothing, and housing. This low income capability will also result in reduced ability to meet average living standards such as public health standards and education standards.

The condition of the so-called poor people can be known based on the ability of income to meet living standards [9]. In principle, the standard of living in a society is not just the fulfilment of the need for food, but also the need for health and education. Adequate housing or settlement is one of the standard of living or community welfare standards in an area. Based on this condition, a community is called poor if it has an income far lower than the average income so that there are not many opportunities to prosper themselves [9].

The definition of poverty which is currently popularly used as a development study is poverty which is often found in developing countries and third world countries. The problem of community poverty in these countries is not just a form of income disability, but has expanded into a form of social and political powerlessness [9]. Poverty is also considered as a form of development problems caused by the negative impact of unbalanced economic growth thereby widening the income gap between communities and the income gap between regions [6]. Current development studies not only focus their studies on the factors that cause poverty, but also begin to identify all aspects that can make poor.

III. Methods

A. *Sample and Procedure*

The type of data used in this study is secondary data, in the form of Economic Growth and poverty data, while primary data is community income data. The objects of this study are: Talaud Islands Regency.

In this study the variables that will be used are: (1) Economic Growth is defined as an increase in GDP / GNP regardless of whether the increase is greater or smaller than the rate of population growth, or whether changes in economic structure occur or not. Economic growth shows an increase in GRDP from the base year of research to the end of the study. Economic growth is measured in percent. (2) The poverty rate is the number of people living below the poverty line as measured by the number of people. (3) Income Inequality is the difference in income in an area with other regions that are different in an area. The unit used to measure income inequality is the Williamson Index, which uses GRDP data at constant prices.

B. *Measurement Procedures and Results*

The analytical method used in this study is path analysis. This analysis is used to determine the effect of independent variables on the dependent variable through intervening variables. The dependent variable is a variable that is influenced by the independent variable. The independent variable is a variable that affects other variables. While intervening is a variable that affects the relationship between the independent variable and the dependent variable into an indirect relationship.

In this study, researchers used Path Analysis. According to Rutherford [10] Path analysis is a technique for analysing cause and effect relationships that occur in multiple regressions if the independent variables affect the dependent variable not only directly but also indirectly. Meanwhile, according to Webley [11] said path analysis is a direct development of multiple regression forms with the aim to provide estimates of the level of importance (magnitude) and significance (significance) of hypothetical causal relations in a set of variables. From some of the definitions above, it can be concluded that the path analysis is actually a continuation of multiple regression.

1) Structural equations 1: The following is the result of data processing using SPSS to determine the effect of the variable Economic Growth (Y1) (dependent variable) with

Income Inequality (X) (independent variable) in Talaud Islands Regency:

$$Y = 2,354 – 7,278\ X \qquad (1)$$

TABLE I. STRUCTURAL EQUATION ESTIMATION MODEL 1

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,354	2,221		1,060	,338
	X	7,278	6,395	,454	1,138	,307
a. Dependent Variable: Y1						

The coefficient value is 7.278 which means that income inequality has a positive influence on economic growth. That is, if income inequality increases then economic growth will also increase and vice versa the spirit of cateris paribus. The results is not in accordance with the theory which states that there is a positive relationship between income inequality and economic growth. The relationship between income inequality and economic growth according to Kuznets [12] suggests that as the economy grows, inequality will increase, then eventually it will decrease. This situation is referred to as the Uterbalik Kuznets hypothesis.

Similarly, as explained in Barro Kuznets [12]ideas accumulate in the movement of workers, from the agricultural sector to the industrial sector. In this model, the agriculture and rural sectors initially constituted the majority of all economic activity. This sector is characterized by low per capita income with only a small gap in the sector. Meanwhile, the industrial sector and the urban sector started from a small sector, having high per capita income, with high inequality within the sector. Economic growth has resulted in the shifting of workers and resources from the agricultural sector to the industrial sector. Migrant workers experience an increase in per capita income, and this change increases inequality in the economy in general. As a consequence, in the early stages of growth, the relationship between income per capita and inequality tends to be positive. This means that the more unequal distribution of income of a country, the higher the rate of economic growth because rich people have a savings ratio that is higher than the poor so that it will increase the aggregate saving rate followed by an increase in investment as development capital that will increase economic growth.

2) Structure equation 2: The following is the result of data processing using SPSS to determine the effect of the poverty variable (Y2) (dependent variable), income inequality (X) (independent variable) and economic growth (Y1) (intervening variable) in Talaud Islands Regency:

$$Y = 10,262– 1,459\ X + 0,032Y1 \qquad (2)$$

TABLE II. STRUCTURAL EQUATION ESTIMATION MODEL 2

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	10,262	1,603		6,403	,003
	X	-1,459	4,679	-,173	-,312	,771
	Y1	,032	,292	,060	,109	,918
a. Dependent Variable: Y2						

The coefficient value is -1,459 which means that income inequality has a negative effect on poverty. That is, if income inequality increases then poverty will decrease and vice versa the spirit of cateris paribus. The problem of income inequality cannot be separated from the problem of poverty, it usually occurs in poor and developing countries. According to Lincoln [13], many developing countries that experienced high rates of economic growth in the 1960s began to realize that such growth had little benefit in solving the problem of poverty. In poor countries the main concern is the problem of growth versus income distribution. Many people feel that high economic growth fails to reduce or even eliminate the magnitude of absolute poverty in Developing Countries (NSB). Poverty can be seen from two sides, namely: first, absolute poverty, where with this approach identified the number of people living below a certain poverty line. Second, relative poverty, i.e. the share of national income received by each income group. Poverty is relatively very closely related to the problem of income distribution.

The coefficient value is 0.02 which means that income inequality has a positive effect on poverty. That is, if income inequality increases then poverty will rise and vice versa the spirit of cateris paribus. Growth and poverty have a very strong correlation, because in the early stages of the development process the poverty level tends to increase and when approaching the final stage of development the number of poor people gradually decreases [6]. Siregar [6] states that economic growth is a necessary condition for poverty reduction. The condition of adequacy is that growth is effective in reducing poverty. That is, the growth should spread to each income group, including the poor population. Directly, this means that growth needs to be ensured in the sectors where the poor work (agriculture or labour-intensive sectors).

IV. CONCLUSIONS

Based on the results obtained, the conclusions can be drawn as follows:

- The results show that income inequality has a positive effect on economic growth. That is, if income inequality increases then economic growth will also increase and vice versa the spirit of cateris paribus. The results is not in accordance with the theory which states that there is a positive relationship between income inequality and economic growth.
- The results of the study show that income inequality has a negative effect on poverty. That is, if income

inequality increases then poverty will decrease and vice versa the spirit of cateris paribus.

- The results of the study show that economic growth has a positive but not statistically significant effect on poverty. This means that if economic growth increases poverty will also increase citeris paribus.

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