

## ANALYSIS OF THE EFFECT OF FISCAL DECENTRALIZATION ON INCOME INEQUALITY IN INDONESIA 2015-2020

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### ABSTRACT

*Fiscal decentralization is a topic that is always interesting to discuss because it is not only included in the economic realm, but is also closely related to other dimensions such as administrative, geographical, and political. The research issue are (1) previous studies on fiscal decentralization showed different results between experts, and on the other hand (2) the amount of fiscal decentralization in the form of transfer funds in Indonesia has increased during 2015 to 2020 but income inequality tends to fluctuate. It proved that the increasing on the amount of fiscal decentralization is not always followed by a decrease in income inequality. This study aims to analyze the effect of fiscal decentralization on income inequality in Indonesia from 2015 to 2020 using panel data regression with Random Effect Model (REM) approachment. The sample is from 32 provinces in Indonesia. The variables are DAU, DAK, DBH, economic growth, poor population, and income inequality. This study finds that DAU, and DBH have significant negative effects on income inequality. DAK and control variables as economic growth and poor population have significant positive effects on income inequality.*

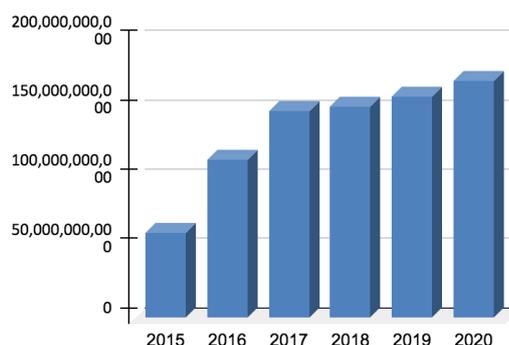
Keywords: fiscal decentralization, economic growth, poor population, income inequality, panel data regression.

### INTRODUCTION

Fiscal decentralization is one of the topics of conversation that is always interesting to discuss because it is not only included in the economic realm, but is also closely related to other dimensions such as administrative, geographical, and political. In addition, the results of research on fiscal decentralization have unequal conclusions among researchers, so that there are disagreements with logical arguments and empirical evidence. Sidig (2018) and Suwanan and Sulistiani (2009) show that the implementation of fiscal decentralization has a significant impact in reducing income inequality. On the other hand, a study by Nurman (2013) shows that fiscal decentralization actually creates income inequality. In line with that, Dyah (2016) shows that fiscal decentralization has a positive and significant effect on income inequality. Despite showing different research results between researchers, according to Hidayat in Zulyanto (2010) stated that the issue of decentralization has not actually reached an end point. This difference does not indicate that the study of decentralization is in crisis. Rather, it is a process of finding a more comprehensive and applicable framework. In addition, it becomes a challenge for decentralization supporters to continue to carry out exploratory studies. Quoting the opinion of Rondinelli and Cheema (1983) defines decentralization as the transfer of planning, decision-making and or administrative authority from the central government to central organizations in the regions, local administrative units, semi-autonomous and parastatal organizations (companies), local governments or non-governmental organizations. Conceptually, the implementation of fiscal decentralization is on the basis that local governments are more aware of the needs of their regions, so that regions are given broad authority to regulate every need needed by each region in accordance with the development priorities of their respective sectors, so that it is expected that it will be easier to achieve the goals of economy acceleration and improve social welfare. The implementation of fiscal decentralization in Indonesia is regulated in Law No. 22 of 1999 and Law No. 25 of 1999.

The implementation of fiscal decentralization is marked by the grant of transfer funds by the central government to regional governments in a very significant amount. In 2015, the grant of transfer funds to the regional government amounted to Rp. 61.5 trillion, and increased drastically in 2016 to Rp. 113.73 trillion. In 2017 the transfer funds increased to Rp. 149.29 trillion, and until 2020 the amount has reached Rp. 170.82 trillion. The amount of the transfer funds can be seen clearly in the following figure,

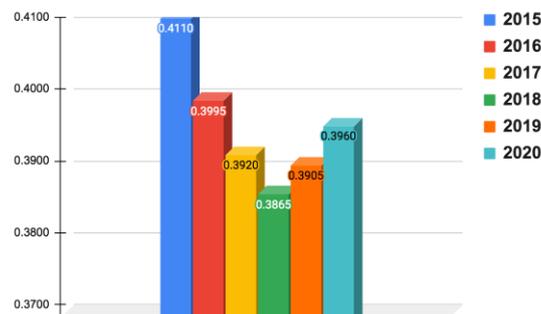
**Figure 1. Provincial Government Receipts throughout Indonesia 2015-2020  
(in thousand rupiah)**



Source : Central Bureau of Statistics (modified by the authors)

On the other hand, the amount of fiscal decentralization during 2015 to 2020 experienced a significant increase, but income inequality in Indonesia as calculated by the GINI ratio showed a fluctuating value during 2015 to 2020. In 2015, Indonesia's GINI ratio was 0,4110 and decreased drastically to 0,3865 in 2018, but increased again in 2019 by 0,3905 and 2020 by 0,3960.

**Figure 2. GINI Ratio Indonesia 2015-2020**



Source : Central Bureau of Statistics (modified by the authors)

Although there is an increase in the amount of fiscal decentralization every year during 2015 to 2020, it is not always followed by a decrease in income inequality, and in fact the value of inequality tends to fluctuate and increase from 2018 to 2020. Thus, the implementation of fiscal decentralization to date tends not to be able to bring an increase in the welfare level of the local community by decreasing the level of income disparity.

Basically, inequality is a problem that almost occurs in all countries in the world. The difference from these countries is only in the amount or value of the inequality, where the value of the inequality cannot be eliminated, but can be suppressed to the limit of the tolerance value. Inequality is not only caused by economic factors but other factors which include differences in natural resources, human resources, differences in socio-demographic conditions, inadequate accessibility of goods and services, and allocation of regional development funds (Sjafrizal in Sari, et al, 2018). According to Simon Kuznet (1995) there is an inverted U pattern, where the pattern requires that at each initial stage of the growth process a country will be followed by conditions of worsening income distribution until it reaches a certain point. This will be followed by improvement in equity and lower inequality.

Based on the above conditions, the research issue are (1) previous studies on fiscal decentralization showed different results between experts, and (2) the amount of fiscal decentralization in the form of transfer funds in Indonesia has increased during 2015 to 2020 but income inequality tends to fluctuate. It proved that the increasing on the amount of fiscal decentralization is not always followed by a decrease in income inequality. So, this research is considered important to determine the effect of the implementation of the fiscal decentralization on income inequality. This research contributes as follows, (1) The results of this research provide empirical evidence based on the latest data, and (2) The results of this research can be used as material for study and basis in making decision by government policies in allocation of transfer funds.

## LITERATURE REVIEW

### Terminology of Fiscal Decentralization

Mawhood in Zulyanto (2010) says that decentralization is the devolution of power from the central government to local governments. Meanwhile, Smith defines decentralization as the transfer of power from a higher level (organization) to a lower level (organization), in a territorial hierarchy, which applies to a government organization within a country, as well as other large organizations. Tanzi in Sidig (2018) states that the term fiscal decentralization refers to the delegation of authority in the field of public finance and government services from the central government to local governments. In Indonesia, as stated in Law number 23 of 2014 concerning fiscal decentralization. Decentralization is the transfer of responsibility/authority of the central government to local governments.

### Fiscal Decentralization in Indonesian Governance

Based on Law Number 23 of 2014 it states that fiscal decentralization includes the delegation of authority in managing the following sources of regional income, among others : PAD, Transfer Funds (DAU, DAK, DBH), and other legitimate regional income. The principle of implementing fiscal decentralization in Indonesia is in line with the experience of other countries in implementing this policy. However, in practice, the fiscal decentralization system must still be adapted to the historical and cultural background, institutional, political, and economic conditions of a country.

### Transfer Fund for Society Welfare

The transfer fund sourced from APBN revenues to fund regional needs consists of three components in general. First, DAU, which is a fund sourced from the APBN which is given annually as a development fund allocated with the aim of equitable distribution of financial capacity between regions to fund regional needs in the context of implementing decentralization (Law Number 33 of 2004). Second, DAK is one of the fiscal decentralization funds allocated for development activities, procurement, improvement of physical facilities and infrastructure in order to achieve increased economic growth through programs that are national priorities. Third, DBH which is allocated to the regions based on a certain percentage figure to fund regional needs in the context of implementing decentralization.

### Theory of Inequality

Inequality occurs in almost all levels of countries in the world, both poor countries, developing countries, and even developed countries. The only thing that distinguishes it is the value of inequality, therefore inequality cannot be eliminated but can be suppressed to the limit of the tolerance value. Kuncoro (2006) states that inequality refers to the relative standard of living for the entire community, which is caused by differences in production factors and available resources, causing the level of development and distribution of income in each region to differ. This creates a welfare gap in the various regions.

### The Effect of Fiscal Decentralization on Income Inequality

Bahl and Linn in Zulyanto (2010) stated that by handing over some authority to local governments, it is hoped that public services can be more efficient and in time will encourage the welfare of local communities. In this condition, regions are more aware of the characteristics of their respective regions so that the allocation of funds to infrastructure and the public sector will be more effective in achieving community welfare. Thus, according to this opinion, it is concluded that local governments are considered more efficient in allocating funds to each sector, when compared to the central government.

### The Effect of Economic Growth on Income Inequality

The relationship between economic growth and income inequality appears in the analysis by Kuznet (1955), where the theory explains the relationship between a country's economic growth rate and an inverted U-shaped income distribution. According to Kuznet's theory, the initial development stage of a country will lead to an increase in income inequality. This process continues until it reaches a peak and then tends to decrease to normal conditions, and the distribution of income is more equal.

### The Effect of the Poor Population on Income Inequality

Poor people tend to be associated with people with low human resource capabilities and of course will contribute to job creation. High population growth but not matched by increased productivity can lead to low people's purchasing power so that it will reduce per capita income. A high population in an area will not actually be a problem as long as the productivity of the local population is also high, so that it does not cause income inequality. However, the problem is that the poor tend to be unproductive, because they are faced with the problem of the low quality of human resources so that most of them are unemployed so that the problem results in increasing income inequality.

## METHODOLOGY

This research is descriptive quantitative research using panel data regression. The type of data used is secondary data which includes time-series data for 2015 to 2020 and cross-sectional data covering provinces in Indonesia. This study uses data provided by relevant agencies such as the Central Bureau (BPS), Djpk, Ministry of Finance, Bappenas, books, journals, and other sources related to research problems. This study consisted of 32 out of a total of 34 provinces in Indonesia, excluding DKI Jakarta and East Kalimantan from the study. This is done with the consideration that there is a zero value that can damage the overall research observations.

### Panel Data Analysis Method

Widarjono (2017) explained that panel data is the combination between cross section and time series data. The methods used to estimate a regression model of panel data are as follow; Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). In determining a method that is suitable for the equation model and research data, it is necessary to conduct a test to choose one model that is more suitable for panel data regression analysis, namely by using the Chow Test, Hausman Test, and Lagrange Multiplier Test. The models to be estimated in this study are as follows,

Inequality = f (dau, dak, dbh, economic growth, poor population)

While the equation model used is,

$$(\text{inequality})_{it} = +\beta_1 \text{Log}(\text{dau})_{it} + \beta_2 \text{Log}(\text{dak})_{it} + \beta_3 \text{Log}(\text{dbh})_{it} + \beta_4 (\text{growth})_{it} + \beta_5 (\text{pop})_{it} + \epsilon_i$$

Where: inequality = income inequality (gini ratio); log(dau) = logarithm of the general allocation fund; log(dak) = logarithm of the special allocation fund; log(dbh) = logarithm of profit-sharing fund; growth = gross regional domestic product; pop = poor population; i = province; t = year.

### Classic Assumption Test

In addition to testing the empirical model, classical assumption testing is also needed in this research. Classic assumption test includes normality, heteroscedasticity, autocorrelation, and multicollinearity.

### Statistical Test

#### - Simultaneous Test (F-test)

F-test was conducted to determine whether all independent variables in the model have simultaneously effect on the dependent variable or not. This test is able to see the simultaneous effect of independent variables on the dependent variable.

#### - Partial Test (t-test)

t-test was conducted to determine the effect of the significance of each independent variable on the dependent variable. In other words, ascertaining whether the selected model is feasible or not feasible to interpret the influence of the independent variable on the dependent variable.

#### - Coefficient of Determination (R<sup>2</sup>)

The coefficient of determination (R<sup>2</sup>) is able to explain how big the proportion of the independent variable variation is in explaining the dependent variable. The greater the value of the coefficient of determination (R<sup>2</sup>), the greater the ability of the independent variable in explaining the dependent variable.

## RESULTS AND DISCUSSION

### The Effect of Fiscal Decentralization on Income Inequality in Indonesia

Based on the estimation results in the econometric equation model, the variables in fiscal decentralization which include the DAU ( $X_1$ ), DAK ( $X_2$ ), and DBH ( $X_3$ ) have a significant relationship to Income Inequality ( $Y$ ). So that every 1% change in the DAU ( $X_1$ ), DAK ( $X_2$ ), and DBH ( $X_3$ ) variables will affect the value of income inequality ( $Y$ ).

DAU ( $X_1$ ) has a significant negative relationship to income inequality. Where every increase in DAU ( $X_1$ ) by 1%, income inequality ( $Y$ ) will decrease by 0.0181 with the assumption of *ceteris paribus*. This is evidenced by the results of the probability value as 0.0146, the value is below the 0.05 degree of significance. These results prove that the increase in DAU significantly reduces the level of income inequality. This result is in line with research by Sidig (2018) which states that DAU has a significant effect in reducing income inequality. Likewise with research by Wardhana et al (2013) which states that DAU has a significant negative effect on income inequality. Waluyo (2007), Dartanto and Brodjonegoro (2003) also show a significant negative relationship between DAU and income disparity. However, the research of Nurman (2013) shows different results, namely there is a significant positive relationship, meaning that an increase in DAU actually increases income disparities.

In formulation, the DAU calculation comes from the sum of the basic allocation and the fiscal gap. Where the basic allocation is given to finance the total salary of civil servants (which consists of basic salary, family and position allowances, rice allowances and tax allowances), while the fiscal gap is the difference between fiscal needs and fiscal capacity. The amount of the DAU will depend on the development of the fiscal gap, each region has a different fiscal gap because the amount of fiscal need and fiscal capacity is not the same. This causes the amount of DAU given to each region is not the same, the higher the fiscal need, the greater the DAU transfer to the region. Income inequality will be even greater if the DAU cannot cover the fiscal gap. This is in accordance with research by Martinez, Vaquez, Jorge and Boex in Juanda, et al (2013) which states that there is an equalization of fiscal capacity and fiscal need to measure fiscal gaps in developed and developing countries.

DAU is part of the transfer funds used as a fiscal stimulus to reduce income inequality and according to the results of this study, it is proven that local governments are more aware of the needs of their regions, so that they are more efficient and on target in spending DAU on the needs of each region, so that it can be achieved the purpose of fiscal decentralization itself is to reduce the level of income inequality. Then, it can be concluded that the DAU is a significant variable in reducing the level of income inequality. The granting of DAU to regions is the right decision because it takes into account the fiscal capacity and fiscal needs of each region. DAU is also used to cover fiscal gaps in each region to be equal, and can be used to improve public services.

But on the other hand, the relatively low value of the DAU coefficient makes the effect of DAU on reducing income inequality relatively small. Research by Wardhana (2013) states that this may be due to the DAU formula, namely the existence of a basic allocation used for personnel expenditures in the form of civil servant salaries, thus encouraging local governments to increase the number of civil servants. Furthermore, there is a perception that local governments when given DAU tend to be used for the purposes of civil servants' salaries. In fact, the DAU should be given to balance regional finances so that the goal of reducing income disparities is achieved.

Furthermore, DAK ( $X_2$ ) has a significant positive relationship to income inequality. Where for every 1% increase in DAK ( $X_2$ ), income inequality ( $Y$ ) will increase by 0.01895 with the assumption of *ceteris paribus*. This is evidenced by the results of the probability value of 0.0005, the value is below the 0.05 degree of significance. The results of this study indicate that an increase in the amount of DAK will be followed by an increase in income inequality. Previous research by Annisa (2019) showed that DAK contributed positively and insignificantly in influencing income inequality. On the other hand, a research study by Wardana (2013) stated that there was a significant negative relationship between DAK (road infrastructure) and a decrease in income inequality. The results are the same with the research of Calderon and Serven (2005) which explains that improving the quality and quantity of infrastructure will reduce income inequality.

Then, DBH ( $X_3$ ) has a significant negative relationship to income inequality. Where every 1% increase in DBH ( $X_3$ ), income inequality ( $Y$ ) will decrease by 0.0078 with the assumption of *ceteris paribus*. This is evidenced by the probability value of 0.0301, the value is below the 0.05 degree of significance. The results of this study are in accordance with Sidig's research (2018), namely DBH has a negative and significant relationship to income inequality. Likewise with Nurman (2013) that DBH significantly reduces income inequality. On the other hand, there are different results of studies by Brodjonegoro (2001) and Waluyo (2007), namely DBH has a significant positive relationship to income inequality, meaning that an increase in DBH actually causes higher income inequality.

In accordance with the results of the study, it was concluded that increasing DBH could reduce the level of income inequality of the population in the area. The larger the DBH, the greater the reduction in the level of income inequality. This indicates that regions with abundant natural resources can use DBH to the fullest for development purposes so as to reduce income inequality in their population (Amri, 2000). However, the relatively low DBH coefficient value makes the influence of DBH on reducing income inequality relatively small.

Based on the study's results of the three indicators on fiscal decentralization, the most effective variable in reducing income inequality is DAU, then DBH. Meanwhile, DAK has not been able to reduce income inequality. This can be seen from the magnitude of the coefficient of each variable. Some of the possibilities for DAK not to have as good and effective impact as DAU and DBH are usage because DAK allocations are very limited to national priority sectors that have been determined by the central government, so that DAK utilization is limited to the terms and conditions that apply to DAK. Meanwhile, DAU and DBH are considered the most appropriate to represent the decentralized fiscal situation because they can be more freely utilized to support regional policies according to the needs of each region (Dyah, 2012). In addition, according to research by Wibowo, Muljarjadi and Rinaldi (2011), the non-achievement of the expected DAK impact is not the result of the small amount of DAK, but rather the inefficient DAK allocation and ineffective governance in DAK implementation. So it is necessary to review the role of DAK which is a national priority as well as the needs of local governments in the annual work plan, so that the impact of DAK to reduce the level of income inequality can be achieved.

### **The Effect of Economic Growth on Income Inequality in Indonesia**

The estimation results show that Economic Growth ( $X_4$ ) has a significant positive relationship to income inequality. Where every 1% increase in Economic Growth ( $X_4$ ), income inequality ( $Y$ ) will increase by 0.0011 with the assumption of *ceteris paribus*. This is evidenced by the results of the probability value of 0.0044, the value is below the 0.05 degree of significance. These results prove that increasing economic growth can significantly increase the level of income inequality and vice versa. Data processing by presenting provinces with economic growth and income inequality above the provincial average in Indonesia, shows that in 2015, when viewed from the average economic growth of provinces in Indonesia, there were 12 provinces whose average growth was above the average of provinces in Indonesia, and 8 of them had income inequality levels above the average income inequality of provinces in Indonesia. In 2016, when viewed from the average economic growth of provinces in Indonesia, there were 14 provinces whose average growth was above the average of provinces in Indonesia, and 9 of them had income inequality levels above the average income inequality of provinces in Indonesia. In 2017, when viewed from the average economic growth of provinces in Indonesia, there were 17 provinces whose average growth was above the provincial average in Indonesia, and 9 of them had income inequality levels above the provincial average income inequality in Indonesia. In 2018, when viewed from the average economic growth of provinces in Indonesia, there were 14 provinces whose average growth was above the average of provinces in Indonesia, and 10 of them had income inequality levels above the average income inequality of provinces in Indonesia. In 2019, when viewed from the average economic growth of provinces in Indonesia, there were 24 provinces whose average growth was above the average of provinces in Indonesia, and 14 of them had income inequality levels above the average provincial income inequality in Indonesia. In 2020, when viewed from the average economic growth of provinces in Indonesia, there are 19 provinces whose average growth is above the average of provinces in Indonesia, and 10 of them have income inequality levels above the average income inequality of provinces in Indonesia.

This shows that the average high economic growth as reflected in the level of GDRP is found in several provinces which have a tendency for high income inequality as well. The findings in this study provide evidence of a positive effect of economic growth on income inequality between regions. However, there are studies that show a different relationship between the variables of economic growth and inequality, namely by Ravallion and Datt (1966) where in the 1950-1990 period in India, the average income per capita increased but income inequality decreased. On the other hand, the results of this research study are in accordance with the study of Lundberg & Squire (2003) which concluded that an increase in economic growth can increase income inequality, which means that the higher the economic growth, the higher the level of income inequality and vice versa, the lower the economic growth, the lower the level of income inequality in the region. Forbes (2000) shows that economic growth and income inequality have a positive and close relationship. Waluyo (2007) also concluded the same thing regarding the effect of economic growth on regional income inequality, namely a positive and significant effect. Based on the results of the relationship between the two variables, the Kuznets hypothesis shows the relationship between economic growth and inequality with an inverted U-curve shape applied in observations of provinces in Indonesia in 2015-2020. The inverted U-curve explains that there is a significant positive relationship between economic growth and income inequality.

High regional economic growth will trigger regional development to develop faster, so that population with better human resource conditions, as well as having opportunities, access, will have greater opportunities to participate in the process of urbanization and industrialization, where the population will be more advanced and have a greater acceleration of income. On the other hand, people who have limited human resources will have difficulty getting opportunities, and competing so that they experience an economic slowdown and even difficulty in getting access to the process of urbanization and industrialization, resulting in income inequality. However, according to Kuznet, at a certain peak point, income inequality will return to its normal position so that inequality will decrease.

Regional economic growth triggers regional development to develop faster, in population who have better human resource conditions, have greater opportunities, access, and opportunities to participate in the process of urbanization and industrialization, where the population will be more advanced and have a greater acceleration of income. On the other hand, people who have limited human resources will experience difficulties in getting opportunities, and competing so that they experience an economic slowdown and even difficulties in getting access to the process of urbanization and industrialization so that there is income inequality. However, according to Kuznet, at a certain peak point, income inequality will return to its normal position so that inequality will decrease.

### **The Effect of the Poor Population on Income Inequality in Indonesia**

The estimation results show that the poor population ( $X_5$ ) has a significant positive relationship to income inequality. Where, for every 1% increase in Economic Growth ( $X_5$ ), income inequality ( $Y$ ) will increase by 0.0022 with the assumption of *ceteris paribus*. This is evidenced by the results of the probability value of 0.0139, the value is below the 0.05 degree of significance. These results prove that increasing the poor population can significantly increase the level of income inequality and vice versa.

The findings in this study provide evidence of a positive influence of the poor population on income inequality. This finding is in accordance with a research study by Lestari (2016) which states that population has a positive and significant effect on income inequality. Wardana's research (2013) shows the same result, that the population has a significant influence on income inequality. The increase in population makes income inequality even higher. The rapid population of non-productive age makes it a burden for the working age population to finance the number of non-productive population. Non-productive age will cause income inequality to get worse. On the other hand, according to Arsyad (1999) high population growth can result in a decrease in per capita income, which in turn affects income inequality.

High population growth but not followed by increased productivity can lead to low people's purchasing power so that it will reduce per capita income. A high population in an area will not actually be a problem as long as the productivity of the local population is also high, so that it does not cause income inequality. However, the problem is that the poor tend to be unproductive, because they are faced with the problem of the low quality of human resources so that most of them are unemployed so that the problem results in increasing income inequality.

Bappenas mentions that the problem of the low quality of human resources in the poor is due to low access to formal and non-formal education. This is due to the high cost of education, the limited number and quality of educational infrastructure

and facilities, the limited number and quality of teachers in poor areas and communities, the limited number of proper schools for the teaching and learning process, the limited number of junior secondary schools in rural areas, remote areas and pockets. pockets of poverty, as well as the limited number, distribution and quality of basic education equality activities through non-formal education.

In addition, Arif & Wicaksani (2017) explain that an increase in the population of an area that is not accompanied by the development of the quality of human resources will cause competition in obtaining jobs to be more stringent, causing unemployment and the greater the level of income inequality.

## CONCLUSION

Based on the results of the discussion that has been described in the previous section, in this study the following conclusions can be drawn;

1. The implementation of fiscal decentralization allows the provincial government to receive transfer funds in the form of DAU, DAK, and DBH. This amount increases quite a lot every year, the purpose of the transfer funds is to improve people's welfare, one of which is a decrease in income inequality. However, the data shows an increase in transfer funds followed by an average decrease in income inequality that is not too significant, which is reflected in the GINI ratio of the provinces in Indonesia which does not show satisfactory results.
2. The study's results of the effect of fiscal decentralization on income inequality, where there are three independent variables involved in the model, which include DAU, DAK, and DBH. These variables show the results that DAU ( $X_1$ ) has a significant negative relationship to income inequality. This means that every increase in DAU will be followed by a decrease in income inequality (Y). DAK ( $X_2$ ) has a significant positive relationship to income inequality. This means that every increase in DAU will be followed by an increase in income inequality (Y), and DBH ( $X_3$ ) has a significant negative relationship to income inequality. This means that every increase in DBH will be followed by a decrease in income inequality (Y).
3. In addition to fiscal decentralization, there are several control variables that are included in the model and affect income inequality in the provinces in Indonesia, namely; economic growth and poor population. Economic growth has a significant positive effect on income inequality. This means that every increase in economic growth ( $X_4$ ) will be followed by an increase in income inequality (Y), while the poor population has a significant positive effect on income inequality. This means that every increase in the population of the poor ( $X_5$ ) will be followed by an increase in income inequality (Y).

## POLICY IMPLICATION

The suggestions that can be given in this study are as follows,

1. The central and regional governments should correct and improve the mechanism for the allocation of transfer funds so that the flow of transfer funds increases substantially every year followed by a significant decrease in average income inequality.
2. Local governments should pay attention to the mechanism for the allocation of DAU, DAK, and DBH. In this way, the three indicators of fiscal decentralization can be more effective in reducing income inequality. The government should especially pay attention to DAK because this variable actually results in higher income inequality. The allocation of DAK is used to fund national priority sectors determined by the central government, and the use of DAK which is limited by terms and conditions causes local governments to not be able to freely use the funds to support policies that are appropriate for each region. This causes the DAK allocation to be less efficient and ineffective in its implementation. So that the regional and central governments need to review the role of the DAK in accordance with the priorities of each region, so that the impact of the DAK in reducing income inequality can be achieved.
3. According to Kuznet's inverted U-pattern theory, at the beginning of the process of economic growth, the country will be faced with a process of urbanization and industrialization which causes the condition of income distribution to deteriorate to a certain point. The role of the government is needed in controlling the flow of urbanization to prevent overurbanization. First, considering that Indonesia is a maritime country and most of the population's livelihood is farmers, the government needs to improve the quality of harvests and the purchasing power of farmers. Second, improving infrastructure and facilities in the village, especially in the fields of education and health. Third, encourage people to have higher education up to university so that they have the opportunity to have decent jobs, so that these things can increase people's income and prevent excessive urbanization. Furthermore, the role of the government needed in the industrialization process is first, to create a conducive climate to increase investment in the industrial sector. Second, maximizing industrial development based on a lot of labor absorption. Third, the government needs to proactively assist business players and creative industries in managing patents and business expansion. In this way, the absorption of labor becomes more even and income inequality decreases. Then, in reducing the population of the poor, the government needs to carry out several interventions, namely first, providing access to formal and informal education to improve the quality of human resources so that the poor are more productive and able to compete in obtaining decent jobs. Second, minimizing imports and increasing the empowerment of farmers, ranchers and fishermen through product purchase schemes by the government, as well as simplifying the logistics route for the distribution of harvest products, considering that most of the work of the poor is in this sector, especially in the agricultural sector, reaching 27.3 percent of the national workforce.

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