

Economic Growth Vs. Poverty in Indonesia: What has Happened?



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ABSTRACT: West Java is one of Indonesia's three biggest contributors to GDP. The rate of economic growth in the province is also the highest on the island of Java, but it does not make West Java free from poverty. The fact, this smart province is the second poorest province nationally. The purpose of this study is to estimate the relationship and influence between economic growth, inequality, and poverty in West Java province using panel data. This study also analyses the characteristics of West Java's economic growth using the Growth Incidence Curve (GIC). The panel data consists of combination of time series and cross section data from 2013-2022 period, based on information from 27 districts in West Java province. The estimation model employed in this study is panel regression model utilizing Random Effect Model (REM). The results of the study reveal a negative and significant effect of the economic growth on poverty. Furthermore, the inequality variable has a positive and significant impact on poverty. Based on GIC, West Java's economic growth has not been pro-poor yet from the 2012-2022 period.

KEYWORDS: economic growth, inequality, poverty, pro-poor

I. INTRODUCTION

The poverty the world faces is closely linked to insufficient financial resources, which then imply other conditions such as poor health, the formation of criminal groups, a low standard of living, economic difficulties, and unmet food needs (Ho & Lyke, 2018). According to the Central Statistical Agency (BPS), a person is said to be poor when he has an average per capita expenditure per month below the poverty line. As of March 2023, Indonesia's poverty line was recorded at Rp550,458 per capita per month, consisting of the food poverty line of Rp408,522 per capita per month and the non-food poverty line of Rp141,936 per capita per month.

The phenomenon of poverty can be caused by a slowdown in economic growth in a region (Wibowo, 2016). This problem will be very complex, not to mention the problems of inequalities that also exist in the region or country (specifically in developing countries). The widespread disparity between the rich and the poor is also a serious problem that governments have to face.

The relationship between economic growth, income inequality, and poverty has been extensively studied by researchers and remains one of the most active areas of study. These three things have a unique, dynamic, and complex relationship that makes them a special focus for governments in various countries. The seriousness of policymakers in dealing with poverty and well-being is demonstrated through the Sustainable Development Goals (SDGs), among which are: No Poverty (SDG 1), Zero Hunger (SDG 2), Good Health and Well-being (SDG 3), Quality Education (SDG 4), Decent Work and Economic Growth (SDG 8), and Reduced Inequalities (SDG 10).

Poverty is not a simple problem because it encompasses many things. Therefore, the solution must, of course, be more comprehensive. The acceleration of poverty reduction in Indonesia has been carried out by the government. Based on the data, the poverty that occurred in the country during 2013-2022 has fluctuated with figures that are not so significant. As for the poor percentage of the population, the figure has seen a high rise due to the COVID-19 pandemic around 2020-2021.

Poverty, which has been a long-standing issue, continues to have the latest patterns that then become an attraction to explore. What's unique is that each region has a specific poverty pattern that requires a different policy design (Bui et al., 2017). The same thing happened in one of the most populous provinces in Indonesia, West Java. The province that is consistently realizing the Smart Province has 27 districts and cities with an ongoing economic growth rate. By 2022, West Java will be among the top three gross domestic product contributors.

The statistics also reveal that during 2013-2022, the growth of the West Java economy declined only in 2020 due to the COVID-19 pandemic. However, poverty still has quite high figures. Although there is a decline, the breadth is very slow. The poverty line in

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West Java in March 2023 was recorded at Rp.495.229 per capita per month. The nominal consists of the Food Poverty Line of Rp267,040 and the Non-Food Poverty Line of Rp128,189 per capita per month.

By 2022, West Java will be the province with the highest economic growth rate on the island of Java, at 5.45%. The figure is driven by the growth of the processing and export industries. Nevertheless, it does not mean that the poverty rate is falling; quite the opposite. West Java is the second-poorest province in Indonesia.

Based on the problem that has been described, the research questions in this paper are: (1) Does the economic growth that takes place in West Java influence the poverty rate? (2) Does income inequality in West Java affect the poverty rate? (3) Is economic growth in West Java already inclusive (pro-poor growth)?

II. LITERATURE REVIEW

Theoretically, when there is economic growth in a region, it will generate inequality in that region. Even such inequalities are usually followed by the phenomenon of poverty. The trickle-down effect theory developed by Arthur Lewis in 1954 explains that economic growth will in itself have an impact on poverty and income inequality. In the long run, the benefits of economic growth will reach the lowest, but will be first at the top (not the poor). Nevertheless, this theory states that poverty will be reduced by itself through the previously mentioned vertical benefits.

Regarding economic growth theory, Harrod Domar's theory explains that when economic growth wants to have a good impact in the long term, then the economy must be in a state of full employment and fulfill some assumptions (Hasyim, 2016; Uzawa, 2018), such as (1) the economy in a state of full employment and all the capital goods in society are used fully, (2) the economy should consist of two sectors, namely households and government, (3) The marginal propensity to save, Capital Output Ratio (COR), and Incremental Capital Output Ratio (ICOR) are fixed. Research on the relationship between the economic growth, inequality, and poverty has actually been done a lot. However, nothing has been accomplished in the West Java province, particularly in the last 10 years. Previous research in Bangka Belitung examined the elements that determine poverty. According to the study, economic growth and government spending have a partial and negative impact on the poverty that occurs in Bangka Belitung. Hence, income inequality and open unemployment have a positive impact on poverty in Bangka Belitung island (Aprillia et al., 2021). Other related research findings say that reducing income inequality in societies can help to reduce poverty rate. In other words, income must be divided evenly, and economic growth must benefit the poor (Charles et al., 2022; Lakner et al., 2022; Nasir & Mridha, 2017). Based on the theories and the findings of prior research, the study presents the following hypotheses:

H1: Economic growth is predicted to influence poverty rate in West Java during the period 2013-2022
H2: Income inequality is predicted to influence poverty rate in West Java during the period 2013-2022

III. METHODOLOGY

A. Data source

The data utilized in this study is obtained from 27 districts and cities in West Java, as released by Central Statistics Agency (BPS) for the period 2013-2022. The research employs panel data gathered from various districts and cities in West Java, including Bogor, Sukabumi, Cianjur, Bandung, Garut, Tasikmalaya, Ciamis, Kuningan, Cirebon, Majalengka, Sumedang, Indramayu, Subang, Purwakarta, Karawang, Bekasi, Bandung Barat, Pangandaran, Bogor City, Sukabumi City, Bandung City, Cirebon City, Bekasi City, Depok City, Cimahi City, Tasikmalaya City, dan Banjar City. The panel data contains both cross-sectional and time series data. To compute pro-poor growth, this study uses annual economic growth rate and household expenditures data.

Table 1. Variable Description

Variables	Proxy	Source of Data	Measurement Scale
Economic Growth (X1)	GRDP Growth Rate	Secondary Data	Ratio
Income Inequality (X2)	Gini Ratio	Secondary Data	Ratio
Poverty (Y)	Percentage of Poor People (HDI-PO)	Secondary Data	Ratio

Source: Authors

B. Analysis Technique

To find out the relationship between economic growth, inequality, and poverty, this study uses panel data regression analysis technique. Therefore, before doing such analysis, it is necessary to undertake some statistical testing in advance to obtain the best model of panel data regression. Some of these tests include Chow Test, Hausman Test, and LM Test. After performing the statistical Tests, the study obtained the result of the Random Effect Model (REM). In addition to the model specification test, to obtain

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accurate and reliable results, the study also performed normality and multicollinearity tests.

IV. RESULT AND DISCUSSION

A. RESULT

To achieve the aim of this paper, both independent and dependent variables are computed using statistical tools, such as Views 12.

Table 2. Summary of Panel Regression Result

Variables	Coefficient	Std. Error	t-Statistics	Prob.
C	10.79707	1.006257	10.72993	0.0000
Economic Growth (EG)	-5.930800	2.289016	-2.590982	0.0101
Income Inequality (II)	0.066740	0.026746	2.495287	0.0132
Prob. (F Statistics)	0.001			
R square	0.459			

Source: Secondary data processed

From the table above, we can create the regression equation:

$$\text{Poverty}_{it} = (10.79 + \beta_0i) - 5.93 \text{ EG}_{it} + 0.06 \text{ II}_{it}$$

Constanta is 10.79. It means that without the economic growth variable (X1) and income inequality variable (X2), the poverty variable (Y) will experience an increase of 10.79% (ceteris paribus). Beta coefficient value of economic growth (X1) is -5.93, which means that if the economic growth variable has an increase of 1%, then the poverty variable will have a decrease of 5.93%, and vice versa with the ceteris paribus assumption. Besides, beta coefficient value of income inequality (X2) is 0.06, which means that if the income inequality variable has an increase of 1%, then the poverty variable will have increase of 0.06%, and vice versa with the ceteris paribus assumption. As can be seen from table above, economic growth has a negative and significant effect on poverty. Hence, income inequality has a positive and significant effect on poverty. In other words, H1 and H2 are accepted.

B. DISCUSSION

The Effect of Economic Growth on Poverty in West Java during the 2013-2022 Period

Economic growth has an impact on the level of poverty that exists in West Java during the period 2013-2022. The results of the analysis show that they have a negative relationship, which can be interpreted as a relationship in opposite direction or, in other words, when there is an increase in economic growth, it will reduce the level of poverty in the region. It is also supported by the trickle-down effect theory that forms the basis of the research. The theory states that when economic growth occurs, it will result in a multiplier effect that will eventually also have an impact on poverty reduction. The rise in economic growth indicates an increase in outputs and inputs. Inputs are factors of production, one of which is labour. If there is an increase in the absorption of labour, it will also increase the income of the people and their purchasing power (Jayadi & Bata, 2016). They will automatically have access and opportunity to better meet the needs of life, especially for basic needs.

Harrod Domar's economic growth theory explains that if you want a growing economy, there must be certain assumptions to be met. One is the assumption that the economy should be in full employment. The entire capital in society has been fully utilized. This means that both labour and other resources are assumed to have been used to the maximum, which can then boost the pace of economic growth. Another assumption in Harrod Domar's theory is that the size of national income and public savings must be proportional. With the rise of economic growth will increase the national income. Through that society will have an increase in per capita income that allows them to meet basic needs well and also save. Thus, economic growth continues to grow and poverty levels can surely be suppressed.

According to the official website of Biro Perekonomian Jawa Barat, West Java's economic growth rate is the highest recorded on the island of Java and the seventh largest at the national level. This situation is also accompanied by a decrease in the poverty rate in the province. According to the West Java province government, poverty figures have been suppressed through various poverty alleviation programs that have been developed by the government.

In addition, the per capita income conditions of the West Java people also continued to rise from year to year so that the people who were formerly in the category of the poor group shifted to the middle group. Economic growth has a multiplier effect that has an impact on the reduction in poverty. Between 2013 and 2022, West Java's economic growth rate continued to climb, only decreasing at the time of the Covid-19 pandemic. It shows that the slightest percentage of economic growth that occurs in West Java has an impact in reducing poverty levels in the region. As economic growth increases, the percentage of the poor in the

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province decreases. Below is a graph showing a negative or opposite relationship between economic growth and poverty levels:

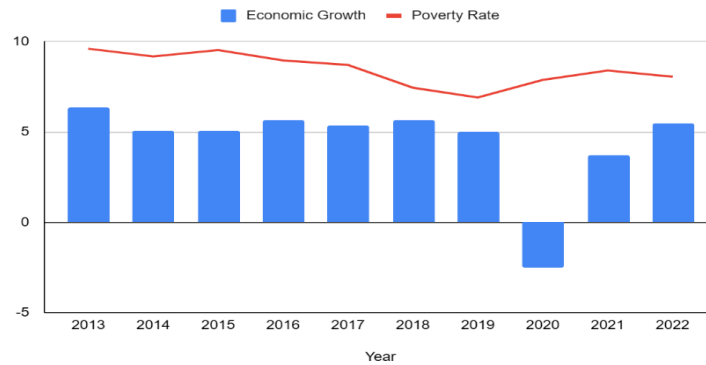


Figure 1. Economic Growth and Poverty Rate in West Java

Source: Secondary data processed

Several relevant previous studies also yielded results that were consistent with this study. They say that economic growth has a negative impact on poverty levels. If the percentage of economic growth increases, then it will reduce the level of poverty in a region (Aprillia et al., 2021; Bui et al., 2017; De Silva & Sumarto, 2014; Nasir & Mridha, 2017).

The Effect of Income Inequality on Poverty in West Java During the 2013-2022 Period

Income inequality has affected the level of poverty, income inequalities are closely linked to the distribution of income in the community. Income disparities will increase as the income of the upper class (non-poor) increases. If the income distribution is equal, then the figure of disparities can also be reduced. High per capita incomes will attract people living below the poverty line so that they are no longer trapped in the category of poor people. On the contrary, unequal income distribution will have a negative impact on society as it makes it difficult for low-income communities to get equal opportunities and access to various aspects to meet basic needs. If left, the proportion of the poor will rise (Afandi et al., 2017).

The results of the analysis are supported by the trickle-down effect theory that forms the basis of this research. The theory says that income inequality will always occur when there is economic growth and it will inevitably result in an increase in the poverty rate in a region. There are trade-offs related to economic growth, income inequality, and poverty that are recognized by the trickle-down effect theory. If it boosts economic growth, there's an uncertainty about income inequality. Such inequalities must have an even greater impact on the rise in the percentage of the poor in a region.

In addition, the neglect of income inequality in society will also make the situation worse and generate many new problems related to inequalities in other aspects. It is going to have an impact on the high poverty rate. In West Java itself, aggregate income inequality figures tend to be stagnant but are in the moderate category. The graphic below depicts the link between income inequality and poverty levels in West Java from 2013 to 2022.

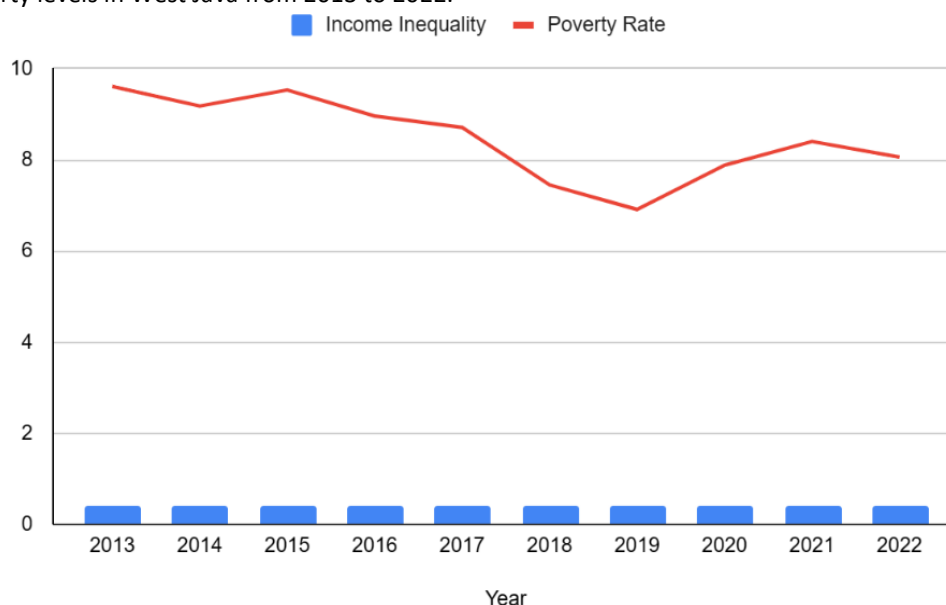


Figure 2. Income Inequality and Poverty in West Java

Source: Secondary data processed

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Some relevant earlier studies have also found similarities with the findings of this investigation. The higher the level of inequality in society, the greater the poverty rate (Afandi et al., 2017; Jamil et al., 2022; Lakner et al., 2022; Permadi, 2018; Suparman & Muzakir, 2023; Trinugroho et al., 2023). However, some research claims that income inequality is one of the consequences of rapid economic expansion (Abdullah et al., 2018; Fernando & B Amar, 2021; Wishartama et al., 2022). To close the gap, economic growth must be balanced with income redistribution in society.

Pro-Poor Growth Analysis

In this study, the Growth Incidence Curve (GIC) will be used to identify pro-poor or non-pro-poor growth trends in West Java between 2013-2022. GIC determines the rate of growth in a given region over a given time period base on each percentile of income or consumption per capita. Here are the GIC rates of Jawa Barat from 2013 to 2022.

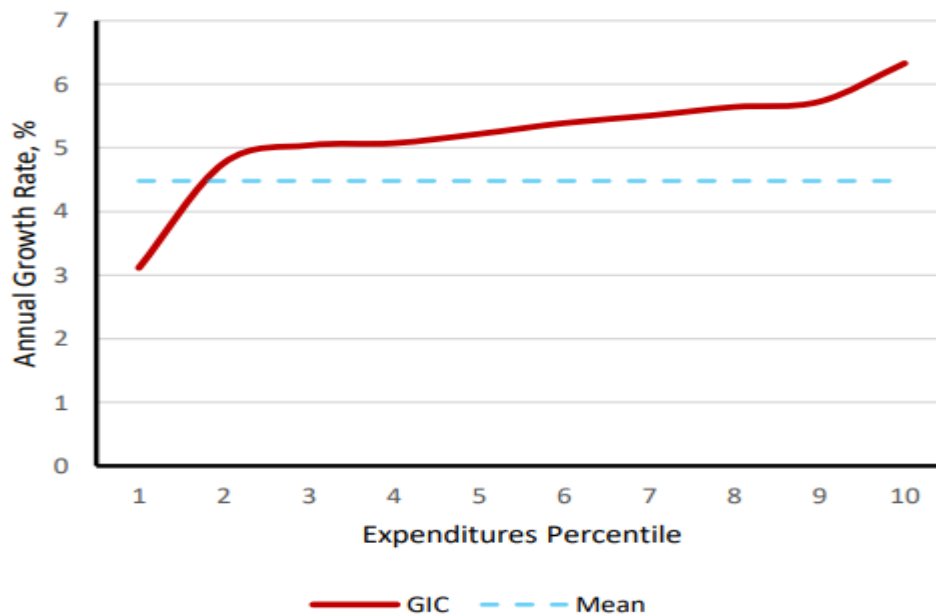


Figure 3. West Java's Growth Incidence Curve During the 2013-2022 Period

Source: Secondary data processed

If you look at the results of the GIC, the economic growth that occurred in West Java during the period under study has not entered the pro-poor category. This means that the benefits of economic growth are more felt or by those who are on high-income percentages. Furthermore, it can be seen in the curve that the population at percentiles 1 and 2 does not feel the impact of the economic growth that is taking place. They are the lowest-income or low-expenditure group in the West Java, but the opposite is the ten-percent population with the highest income or expenditure (not poor) benefit most from economic growth.

In theory, this is in line with Arthur Lewis' sound trickle-down effect theory that at first economic growth will be felt first by the upper (non-poor) groups so that growth leads to inequality in society. However, as time passes, the benefits can drop to the lower group (poor group) even in a very small number. Income and poverty reduction rates in West Java remain relatively low when compared to other regions in Indonesia. According to the Inclusive Economic Development Index (IPEI), West Java ranks 12th among all Indonesian provinces. West Java's IPEI is just 5.93. Although these results are satisfactory, income disparity remains a significant issue in each district and city. There must be a fair distribution of money and economic growth that benefits the poor. Economic growth is needed to improve the level of well-being of the people. However, economic growth strategies must be focused and beneficial to the poor. However, it should be noted that high economic growth rates are not enough to eradicate poverty. Too much focus on pursuing economic growth will also affect the high-income inequality (Fernando & B Amar, 2021; Muthia, 2019; Primadianti & Sugiyanto, 2020; Puspitarini & Anggraini, 2018).

After looking at the GIC West Java period 2013-2022 above, it can be concluded that the curve is not downward sloping. The benefits of economic growth are more felt or by those who are on the middle to high income percentage. Thus, the characteristics of economic growth in the West Java province are not on the pro-poor side or can also be said non-pro-poor growth because the GIC cuts the average growth line from the bottom left to the top right. This can also be seen through the West Java Gini coefficient figures that still show income inequality with the moderate category in the province.

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CONCLUSIONS

Several conclusions can be derived from the estimation results obtained using the panel regression model. During the period 2012-2022 the economic growth of the West Java province was seen continuously rising which was also followed by a decrease in the number of poor people. However, income inequalities occurring in the region tend to stagnate in the moderate category. Over the past 10 years, the data only showed a drastic decline in economic growth and a significant increase in the number of poor people by 2020. It is caused by the COVID-19 pandemic that then spread all over the world and disrupted aspects, including the economy.

The results from panel data regression show that economic growth has a negative impact on poverty in West Java. It means that when the rate of economic growth increase, poverty will decrease, and vice versa. However, the variable of income inequality has a positive effect on poverty, which can be interpreted as poverty increase when income inequality increase, and vice versa. To look at the characteristics of economic growth in West Java, this study uses the Growth Incidence Curve. The curve does not show downward slopping. The GIC of West Java cuts the average growth line from bottom left to top right. As a result, economic growth over the last decade has been driven primarily by those with middle and high incomes, rather than low-income individuals. In other words, the economic growth in this province is not pro-poor.

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