

# Can Decentralized Funds Overcome the Problem of Poverty in Indonesia?

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**Abstract:** The present study aimed to investigate the impact of gross regional domestic product (GRDP), general allocation funds (GAF), population, government spending on the education and health section, and foreign direct investment (FDI) on poverty in several regions in Indonesia. Panel Data Regression analysis techniques were used to process the quantitative data, and the Fixed Effect Model was chosen as the best model. This research used time series and cross-section data in 20 provinces in Indonesia, covering a period between 2010 and 2022. The results found that GRDP, GAF, government spending on health, and FDI negatively influence poverty alleviation. On the other hand, population positively affects poverty, while education expenditure does not influence poverty. The current research focused more on the decentralized funds in Indonesia's archipelago-shaped region, which come from cultural differences, differences in human resources, and different natural resources in each region that contribute to determining poverty.

**Keywords:** Decentralization Funds, Fiscal Policy, Poverty, Panel Data Regression.

## INTRODUCTION

Problems in macroeconomics are divided into short-term and long-term problems (Mankiw, 2013). The short-term challenges are the problems that must be avoided as they are considered major economic diseases, including inflation, unemployment/poverty and imbalance of payments deficit. Meanwhile, issues in the long term are to ensure the country's always to experience economic growth. The issue of poverty significantly hinders Indonesia's national development process. Poverty is a major economic issue that has yet to be effectively addressed. The Indonesian government consistently employs a strategy of multiple packages and programmes, which often include a diverse range of national and international poverty specialists to justify its actions. According to Todaro and Smith (2020), poverty can be divided into absolute and relative poverty. Absolute poverty is declared when national income levels are below the minimum to meet basic needs such as food, clothing, and shelter. Meanwhile, relative poverty is calculated as an indicator of income levels that have not been able to reach the minimum basic needs level.

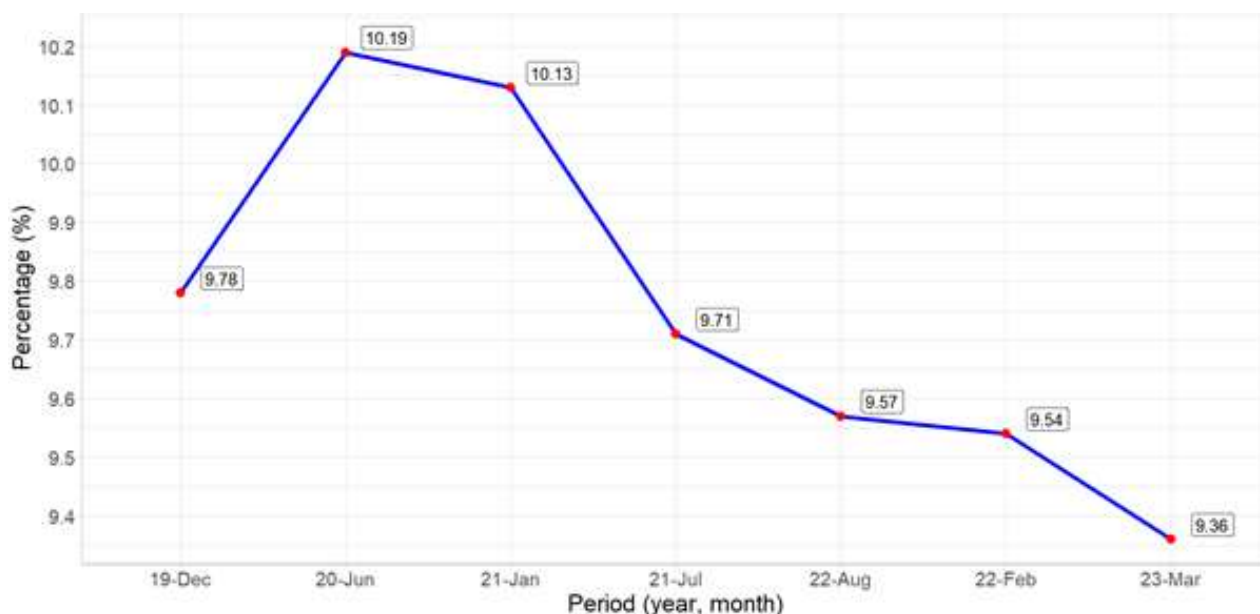
In developing nations, poverty can arise due to the inequitable allocation of income. Poverty can also be attributed to limited human and natural resources and cultural or mindset barriers that perpetuate impoverished living conditions, such as a lack of technological advancements and innovation. The government might inadvertently contribute to poverty by implementing a poverty alleviation programme that fails to address the underlying causes, resulting in economic inequalities among different parts of the country. Resolving poverty involves more than just providing financial or mate-

rial aid; it also involves dealing with the underlying factors that lead to individuals in poverty. The cycle of poverty typically originates from impoverished families, as their financial circumstances hinder their children's access to quality education. Inadequate education results in diminished productivity, ultimately resulting in low income. Fig. (1) displays the development of poverty in Indonesia between 2020 and 2023.

Poverty has increased due to the COVID-19 pandemic, marked by the percentage of Indonesia's poor population in September 2020 amounting to 10.9 %. The number of poor people in September 2020 was the most significant number entering the 21<sup>st</sup> century. Then, it started to decline until March 2023 to 9.36 %. If poverty is not addressed, it will lead to social issues and criminal activity and have long-term implications for economic stability. Economic development seeks to enhance individuals' well-being by promoting economic stability, expanding job prospects, alleviating poverty, and fostering economic growth. According to Todaro and Smith (2020), economic development is increasing economic growth accompanied by long-term changes in economic structure.

Research on the relationship between gross domestic product (GDP) and the number of poor people was conducted by Pham and Riedel (2019) in Vietnam. The study found a strong correlation between the expansion of the industrial and agricultural sectors and a substantial decrease in the poverty rate. Conversely, a growing share of the service sector leads to a rise in the number of individuals living in poverty. The study's findings indicated that the economic expansion in Vietnam did not have a significant effect on diminishing the population of impoverished individuals. Similar results are found in other countries (Akoum, 2008; Chen et al., 2016), which reported that high levels of economic growth do not invariably result in a reduction of the impoverished population. A pro-poor economic policy approach

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**Fig. (1).** Development of the Poor Population in Indonesia 2020-2023.

Source: Indonesian Central Bureau of Statistics, 2023

can be more effective in reducing the number of poor people than the policy approach that only pursues economic growth.

Meanwhile, another study by Sasmal and Sasmal (2016) compared public spending on infrastructure development, such as roads, irrigation, electricity, transportation, and communications in developing countries. Economic spending showed the ability to increase per capita income and reduce poverty rates. This research concludes that economic growth has contributed to reducing the number of poor people (Marrero & Servén, 2022). Previously, several studies concluded that economic growth and income distribution play an important role in poverty alleviation (Alvi & Senbeta, 2014; Cheema & Sial, 2010; Hanim, 2021; Loayza & Raddatz, 2010; Perera & Lee, 2013). Hence, the economic policies to eradicate poverty must include increasing equitable income distribution and economic growth.

Research on the connection between central subsidized funds and poverty conducted by Wu et al. (2015) reported that central government transfers to regions and income aid targeted to poor communities can help alleviate inequality and poverty. However, the funds generally do not target the most underprivileged communities. Other research conducted by Purbadharmaja et al. (2019) concluded that regional budget allocations for improving public services and infrastructure development will increase regional economic capacity, further encouraging improvements in community welfare and reducing the number of poor people. Several studies stated that the era of regional autonomy had an impact on reducing poverty rates by increasing the transfer of funds from the central nation to other regions (Ali Khan, 2013; Boret et al., 2021; Digidowiseiso, 2022; Guritno et al., 2019; Hussain et al., 2021). In addition, fiscal decentralization has the potential to reduce poverty when characterized by greater financial autonomy with budget allocation, priority setting and accountability (Agyemang-Duah et al., 2018; Bawole, 2017; Harris & Posner, 2022; Shahid et al., 2022; Siburian, 2022).

Meanwhile, Zhao et al. (2022) reported that fiscal decentralization significantly hinders environmentally friendly poverty alleviation. Similar research showed that decentralization has nothing to do with poverty (Canare, 2022).

Research conducted by Chotia and Rao (2017) shows that government spending on infrastructure development impacts poverty reduction in the long and short term. The results of the Granger causality test confirm an optimistic and unidirectional causality from infrastructure development to poverty reduction. Celikay and Gumus (2017) discussed the negative relationship between social spending and poverty in the short term. Meanwhile, the positive relationship between social expenditure and poverty occurs in the long term. A previous study mentioned the negative relationship between education (social) spending and short- and long-term poverty (Cammeraat, 2020).

On the contrary, research conducted by Dimnwobi et al. (2023) reported that government capital expenditure in Nigeria exacerbates energy poverty in terms of electricity access, urban electrification, renewable energy consumption, and renewable electricity generation. Research by Wagstaff et al. (2018) concluded that government health expenditure has a negative relationship with poverty. The study also proved that spending out of private money on health costs in some countries can impoverish all income levels. Nguyen and Su (2022) concluded that government spending has a U-shaped effect on energy poverty; increasing government spending can alleviate energy poverty. In another study by Omari and Muturi (2016), agricultural and health spending resulted in a positive and significant effect on poverty levels, while infrastructure spending negatively and significantly affects poverty levels.

Research on the relationship between population development and poor people by Das Gupta et al. (2011) found that rapid population growth can hamper economic growth and will ultimately have an impact on increasing the poor popu-

lation. In Uganda, the study by Klasen & Lawson (2007) discussed that high population growth has a major impact on the significant contribution to the low achievement of poverty alleviation. However, research by Nabi et al. (2020) shows a negative relationship between population growth and poverty. Other research by Zubarevich (2019) states that demographic factors and urbanization affect poverty in Russian regions. Research on the relationship between FDI and poverty reported that foreign investment directly impacts poverty alleviation (Dada & Akinlo, 2021; Gohou & Soumaré, 2012; Magombeyi & Odhiambo, 2017). Another study concluded that foreign investment has a greater impact on poverty alleviation in underprivileged countries than in rich countries (Ganić, 2019). Foreign investment has contributed to poverty alleviation directly and indirectly through human resources (Arogundade, Biyase, et al., 2022; Do et al., 2021; Lazreg & Zouari, 2018). Meanwhile, several preceding studies illustrated a causal relationship between FDI and poverty in the long run, and lower poverty levels lead to higher FDI flows (Arogundade, Mduduzi, et al., 2022; Dhryfi et al., 2020; Khan et al., 2019; Teixeira & Loureiro, 2019).

Therefore, after several studies showed a varied effect in other countries, it is encouraging to examine the impact of gross regional domestic income, general allocation funds, population, government spending on education and health, and foreign direct investment on poverty in several regions in Indonesia. This research contributes to Indonesia's archipelago-shaped region with cultural human resources and natural resource differences in each region, which might affect poverty determination differently compared to other nations.

**MATERIALS AND METHODOLOGY**

This research used time series and cross-section data in 20 provinces (Indonesia has 34 provinces) in annual form for 2008-2022. The data used in this research comes from the Indonesian Central Bureau of Statistics and the Directorate General of Financial Balance, Ministry of Finance of the Republic of Indonesia, as well as other sources related to this research. The data was analyzed using the panel data regression with a Fixed Effect Model approach. Panel data combines two-time series and cross-sectional data (Basuki & Prawoto, 2016). The following is the panel data regression equation in this research:

$$Pov = f(GRDP, Pop, GAF, Health_B, Edu_B, FDI)... (1)$$

$$Pov = \beta_0 + \beta_1GRDP + \beta_2Pop + \beta_3GAF + \beta_4Health_B + \beta_5 Edu_B + \beta_6 FDI + \epsilon (2)$$

$$LogPov = \beta_0 + \beta_1LogGRDP + \beta_2LogPop + \beta_3LogGAF + \beta_4LogHealth_B + \beta_5LogEdu_B + \beta_6LogFDI + \epsilon (3)$$

Description

- Pov = Poverty level
- GRDP = Gross Regional Domestic Product
- Pop = Population
- GAF = General Allocation Fund

Health\_B = Government Expenditures on Health

Edu\_B = Government Expenditures on Education

FDI = Foreign Direct Investment

e = Error Term

$\beta_0$  = Constant

$\beta_{1,2,3,4}$  = Regression coefficient of each independent variable

The estimation method for the panel data regression model in this research will produce three approaches, including Ordinary Least Square (OLS), Fived Effect Model (FEM) and Random Effect Model (REM). The first model is the common effect model, also called the Ordinary Least Square (OLS) approach. The OLS model is the most straightforward approach compared to other models in the panel data model. This model combines time series and cross-section data in a regression. This model does not pay attention to the dimensions of time (time series) or individuals (cross-section), so this model assumes that the behaviour of data between spaces is the same in various periods. The equations in the common effect model can be written in an equation as follows (Gujarati, 2021):

$$Y_{it} = \alpha + X_{it}\beta + e_{it}.. (4)$$

The FEM model is a panel data model with the slope for everyone not changing over time (time series), but the intercept for each individual (cross-section) is different. The fixed effect model will estimate the intercept using the dummy variable technique as follows:

$$Y_{it} = \alpha + i\alpha_i + X'_{it}\beta + \epsilon_{it}... (5)$$

$$\begin{bmatrix} Y_{11} \\ Y_{12} \\ \dots \\ Y_{1n} \end{bmatrix} = \begin{bmatrix} \alpha \\ \alpha \\ \dots \\ \alpha \end{bmatrix} + \begin{bmatrix} i & 0 & 0 \\ 0 & i & 0 \\ \dots & \dots & \dots \\ 0 & 0 & i \end{bmatrix} \begin{bmatrix} \alpha_1 \\ \alpha_1 \\ \dots \\ \alpha_n \end{bmatrix} + \begin{bmatrix} X_{11} & X_{21} & \dots & X_{p1} \\ X_{12} & X_{22} & \dots & X_{p2} \\ \dots & \dots & \dots & \dots \\ X_{1n} & X_{2n} & \dots & X_{pn} \end{bmatrix} \begin{bmatrix} \beta_1 \\ \beta_2 \\ \dots \\ \beta_n \end{bmatrix} + \begin{bmatrix} \epsilon_1 \\ \epsilon_2 \\ \dots \\ \epsilon_n \end{bmatrix}$$

The REM model is a panel data model with differing parameters between regions and time. This model is also called an error component model because the estimates carried out in the REM model will create disturbance variables that are related between individuals and time. Although this model causes a reduction in the use of degrees of freedom, it will not result in a reduction in their number. The implication is that the results of the REM model estimation will be more efficient. The advantage of the REM model is that if it is used using the Generalized Least Square (GLS) method, it will eliminate heteroscedasticity in the model. The REM approach model equation is as follows:

$$Y_{it} = \alpha + X'_{it}\beta + W_{it} (6)$$

After regression with three approaches, the best model was selected by carrying out several tests, namely the Chow Test, Hausman Test, and Lagrange Multiplier test.

**RESULTS AND DISCUSSION**

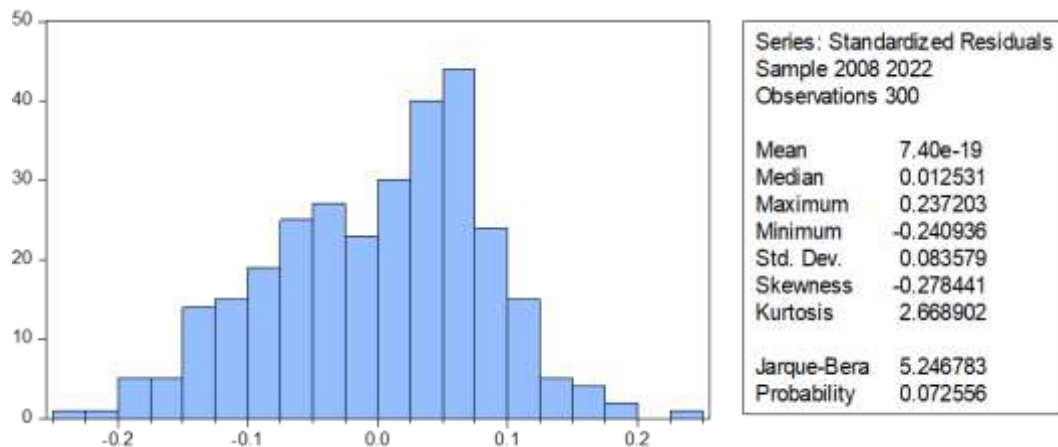
A balanced panel data set (20 regions with 15 time series data) was employed in this study. A panel is considered balanced when the number of observations from 20 regions and 15 distinct times equals to 300 data points. The findings of panel data regression will yield three models: common effect, fixed effect, and random effect (Table 1). Afterwards,

**Table 1. Panel Data Regression Results.**

Dependent Variable: LOG (POVERY)	Common Effect		Fixed Effect		Random effect	
	Coef.	t-Stat	Coef.	t-Stat	Coef.	t-Stat
LOG (GRDP)	-0.2563	-5.0391***	-0.3323	-6.9067***	-0.3265	-6.3345***
LOG (POPULATION)	1.1618	22.6178***	0.6698	7.6050***	0.8936	10.6457***
LOG (GAF)	0.1107	3.4955***	-0.0667	-3.9659***	-0.0874	-5.2475***
LOG (EDU_B)	-0.0697	-3.6439***	0.0077	1.0009	-0.0016	-0.2048
LOG (HEALTH_B)	0.0497	1.9798*	-0.0206	-2.5845***	-0.0178	-1.8209*
LOG (FDI)	-0.0730	-6.1324***	-0.0136	-2.9831***	-0.0196	-3.8287***
C	1.1255	1.7558	8.0651	9.4122***	6.5470	7.9009***
Adjusted R-squared	0.9178	-	0.9910	-	0.5217	-
F-statistic	557.5713	-	1320.2030	-	55.3573	-
Prob (F-stat)	0.0000	-	0.0000	-	0.0000	-
Chow Test	Cross-section F			499.13***	-	-
Hausman Test	Cross-section random			-	19.63***	-

Note: \*\*\* significance level = 1%; \*\* significance level = 5%, \* significance level = 10%.

Health\_B: Government Expenditures on Health; Edu\_B: Government Expenditures on Education; GAF: General Allocation Funds; GRDP: Gross Regional Domestic Product; FDI: Foreign Direct Investment



**Fig. (2).** Normality Test Results.

the best model was determined by using the results of the Hausman test (to select the best model between OLS and FEM) and the Chow test (to select the best model between the FEM and REM). The specification tests showed the best model to estimate the number of poor people due to the influence of gross regional domestic income, population, special allocation funds, government spending in the Health and Education sectors, and foreign direct investment. Based on the results, the appropriate model for this research was the FEM, as seen by the R-Squared (R2) value of 0.991. The R2 value indicates that 99.1% of the variation in poor people can be explained by the influence of gross regional income variables, balancing funds, population, government spending on education and health, and foreign direct investment. Meanwhile, the remaining 0.9% is defined by other variables outside the model in this study.

Once the FEM model has been chosen, a series of classical assumption tests are conducted on the selected model using panel data. These tests include the normality test, multicollinearity test, and heteroscedasticity test. A normality test was performed to ascertain if the acquired data follows a normal distribution or is derived from a normal population. Common techniques for identifying data normality include the Chi-Square, Kolmogorov-Smirnov, Lilliefors, Shapiro-Wilk, and Jarque-Bera tests. Fig. (2) displays the data normality analysis using the Jarque-Bera test. After the Jarque-Bera calculation, the results were 5.246 with a probability of 0.072 (7.2%), which implies the model residuals are normally distributed as the probability value is more than 5%.

A heteroscedasticity test was conducted to determine the disparity in variance between the residuals and observations

**Table 2. Heteroscedasticity Test Results.**

Dependent Variable: ABS(RESID01)				
Variable	Coef.	Std. Err	t-Stat	Prob.
LOG (GRDP)	0.0294	0.0286	1.0259	0.3059
LOG (POPULATION)	-0.0930	0.0535	-1.7381	0.0833
LOG (GAF)	-0.0006	0.0094	-0.0688	0.9452
LOG (EDU_B)	0.0062	0.0044	1.4171	0.1576
LOG (HEALTH_B)	-0.0062	0.0052	-1.1937	0.2336
LOG (FDI)	-0.0037	0.0028	-1.3356	0.1828
C	0.3583	0.5291	0.6772	0.4989

Note: Health\_B: Government Expenditures on Health; Edu\_B: Government Expenditures on Education; GAF: General Allocation Funds; GRDP: Gross Regional Domestic Product; FDI: Foreign Direct Investment.

**Table 3. Multicollinearity Test Results.**

VARIABLE	Poverty	Population	Health_B	Edu_B	GAF	GRDP	FDI
POVERTY	1.000	0.912	0.454	-0.026	0.335	0.650	0.157
POPULATION	0.912	1.000	0.575	0.068	0.386	0.849	0.391
HEALTH_B	0.454	0.575	1.000	0.483	0.560	0.652	0.384
EDU_B	-0.026	0.068	0.483	1.000	0.540	0.230	0.334
GAF	0.335	0.386	0.560	0.540	1.000	0.321	0.350
GRDP	0.650	0.849	0.652	0.230	0.321	1.000	0.595
FDI	0.157	0.391	0.384	0.334	0.350	0.595	1.000

Note: Health\_B: Government Expenditures on Health; Edu\_B: Government Expenditures on Education; GAF: General Allocation Funds; GRDP: Gross Regional Domestic Product; FDI: Foreign Direct Investment.

in a regression model. For a regression to fulfil the best criteria, it must satisfy the condition of having homoscedasticity, which means that the residuals of the observations have equal variance in each regression and are not influenced by the independent variable.

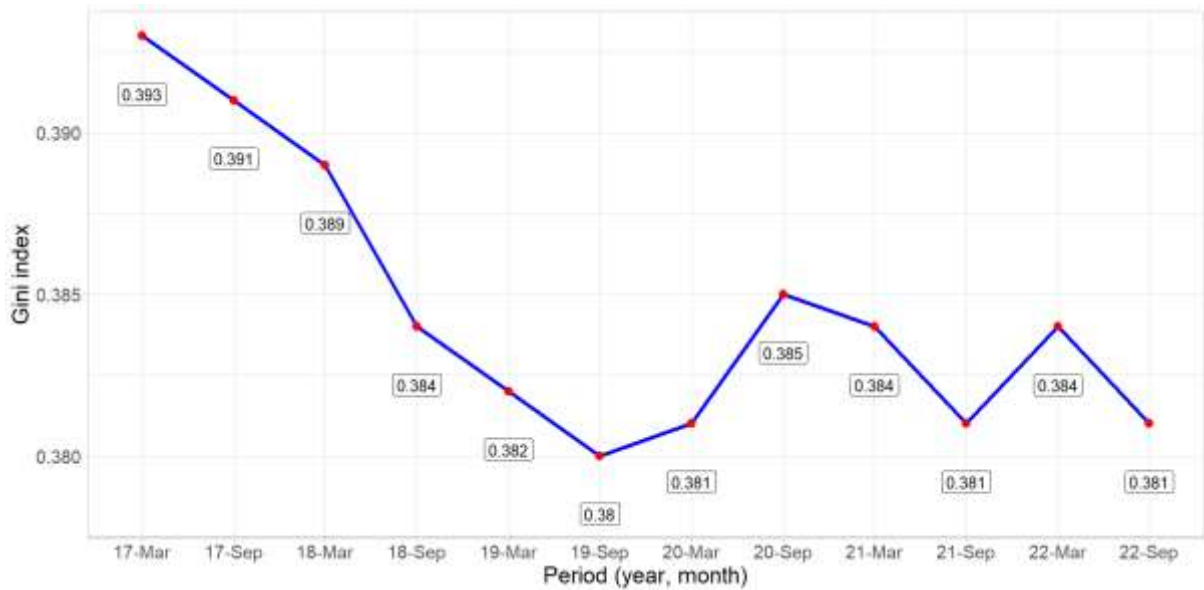
Based on Table 2, the probability value for each variable in the equation model is above the significance level ( $> 0.05$ ). The result implies that the FEM model in this research fulfils the assumption of homoscedasticity or is free from heteroscedasticity problems.

Multicollinearity, also known as double collinearity, refers to the existence of a linear relationship between the independent variables X in the Multiple Regression Model. An effective regression model is free from multicollinearity. Nevertheless, in the presence of multicollinearity, the association between the dependent variable and the independent variable will be disturbed. According to Table 3, most correlation values are less than 0.9, indicating that multicollinearity issues do not affect the model employed.

Based on Table 4, the GRDP variable negatively and significantly influences the number of poor people. If an even income distribution throughout Indonesia accompanies the

growth in GRDP, it will reduce the number of poor individuals. The Gini index is commonly employed to quantify income inequality in a given area. Income inequality measures the uneven income distribution among different regions within a community.

The Gini ratio of Indonesia between 2017 and 2022 is displayed in Fig. (3). According to data published by the Indonesian Central Bureau of Statistics, the Gini coefficient for Indonesia was 0.393 in March 2017 and 0.391 in September 2017, indicating a reduction of 0.002. The Gini index decreased from 0.385 in September 2020 to 0.381 in September 2021. The Gini index for September 2022 is projected to remain at 0.381. Between 2017 and 2022, there has been a noticeable improvement in the distribution of opinions across areas in Indonesia, as indicated by the decline in the Gini index, which dropped from 0.393 in 2017 to 0.381 in 2022. The results of this research are similar to several previous studies which reported that economic growth accompanied by income distribution within a region plays a vital role in alleviating poverty (Alvi & Senbeta, 2014; Cheema & Sial, 2010; Hanim, 2021; Loayza & Raddatz, 2010; Perera & Lee, 2013).



**Fig. (3).** Indonesian GINI Index Between 2017 – 2022.

Source: (Indonesian Central Bureau of Statistics, 2023a).

**Table 4. Selected Models**

Dependent Variable: LOG (POVERY)	Fixed Effect	
	Coef.	t-Stat
LOG (GRDP)	-0.3323	-6.9067***
LOG (POPULATION)	0.6698	7.6050***
LOG (GAF)	-0.0667	-3.9659***
LOG (EDU_B)	0.0077	1.0009
LOG (HEALTH_B)	-0.0206	-2.5845***
LOG (FDI)	-0.0136	-2.9831***
C	8.0651	9.4122***

Note: Health\_B: Government Expenditures on Health; Edu\_B: Government Expenditures on Education; GAF: General Allocation Funds; GRDP: Gross Regional Domestic Product; FDI: Foreign Direct Investment

The population growth in Indonesia has led to a rise in impoverished individuals, as evidenced by the positive and statistically significant coefficient. The population growth has led to a significant expansion of facilities and infrastructure. However, being a vast island country, Indonesia exhibits a substantial infrastructure development gap between its western and eastern parts. Indonesia has one of the world's largest populations, fourth after China, India, and the United States. Indonesia's annual population growth rate is 1.1% on average. Indonesia's population growth is an obstacle to encouraging economic growth because it is not accompanied by urban-to-rural migration, thus limiting productivity increases. Population growth coupled with increased human resources and employment opportunities can encourage economic growth and, in the long term, will reduce the number of poor people. The results of this research are supported by research results by Klasen and Lawson (2007), who reported

that high population growth has a big impact on significant contributions to the low achievement of poverty alleviation. Another study by Zubarevich (2019) similarly stated that demographic factors and urbanization influence poverty.

The General Allocation Fund (GAF) plays a crucial role in addressing the issue of poverty in Indonesia. The GAF refers to regional revenue funds derived from the transfer of funds from the central government to the regional level. These funds are allocated explicitly for designated initiatives mutually agreed upon by the central and regional governments, specifically for Education, Health, Public Works, and Public Service activities. GAF must be carried out under statutory regulations (or mandatory spending), which mention that regional expenditure or expenditure originating from GAF must comply with the law. At least 25% of GAF is directed toward regional infrastructure spending directly related to accelerating the development of public service facilities. Based on the law about the Indonesian State Budget (*Anggaran Pendapatan dan Belanja Negara or APBN*), the funds are also intended to increase employment opportunities, reduce poverty and reduce gaps in the provision of public services between regions. It is essential to use GAF in a manner that adheres to regulations to ensure compliance with the law. By doing so, any irregularities in budget utilization that contravene the rules can be minimized while maximizing the achievement of development objectives. The results of this research are in accordance with previous research that confirms the impact of fiscal decentralization on reducing poverty when characterized by greater financial autonomy with budget allocation, priority setting and accountability (Agyemang-Duah et al., 2018; Bawole, 2017; Harris & Posner, 2022; Shahid et al., 2022; Siburian, 2022).

The Indonesian Education Budget, as indicated by the variable Edu\_B, has a positive coefficient but is not significant in overcoming the problem of poverty in Indonesia. Low education costs can improve the quality of human resources and, in the long term, encourage economic growth. However, the

reality of education in Indonesia cannot be accessed by all lower middle-class people due to the high cost of education. The Indonesian government has tried to overcome education problems by issuing the mandate of the 1945 Constitution, article 31 paragraph (4) and Law no. 20 of 2003 concerning the National Education System article 49 paragraph (1) that states the education budget allocation of 20% from the Regional Revenue and Expenditure Budget to provide education subsidies for low-income families and Student Operational Assistance funds to state schools. Unfortunately, student operational assistance funds do not apply to private schools in Indonesia, where private high schools dominate by 50.23% and private vocational high schools dominate by 74.56%. The costly expense of education leads to an educational disparity between the privileged and the impoverished, ultimately resulting in a disparity in the availability of highly qualified people. Consequently, poverty will remain unresolved and will lead to a vicious cycle of disease. The results of this research are similar to the research conducted by Rajkumar & Swaroop (2008), which concluded that government spending, in general, has almost no impact on health and education outcomes in countries with poor governance and consequently does not influence economic growth and alleviating poverty.

The regional spending on health has a negative and significant coefficient, as seen from the variable of Health\_B in this study. The result implies that the increase in regional spending on the health sector will reduce the number of poor people in Indonesia. The size of the regional government budget allocated for health is at least 10% of the regional income and expenditure budget (Law No. 36 of 2009 concerning Health). Implementing the health programme with commitment and strong governance will positively influence the growth of healthy human resources, thus enhancing worker productivity. Similarly, the study by Wagstaff et al. (2018) concluded that government health spending decreased the number of poor people. In this study, Foreign Direct Investment (FDI) shows a significant negative coefficient, which indicates that the rise of FDI will improve employment opportunities and reduce the number of poor people. Investment is a locomotive in driving a country's economic growth. Hence, enhancing investment will diminish unemployment by generating supplementary employment opportunities, and the surge in the workforce will stimulate heightened production. JB Say's Market Law Theory posits that supply can generate demand. Rising demand for a commodity will lead to increased consumption, increasing per capita income. The results of this study are in accordance with previous studies, which state that foreign investment has contributed to poverty alleviation not only directly but also indirectly through human resources (Arogundade, Mduduzi, et al., 2022; Do et al., 2021; Lazreg & Zouari, 2018; Topalli et al., 2021).

## CONCLUSION

The present study concluded that economic growth in Indonesia, accompanied by regional income distribution, plays a vital role in alleviating poverty. High population growth has a major impact on the significant contribution to the low achievement of poverty alleviation, and demographic factors and urbanization influence poverty. The General Allocation Fund (GAF) significantly influences overcoming the prob-

lem of poverty in Indonesia. These funds are focused on their use and are only used for programs agreed upon between the central and regional governments. Government expenditures generally have almost no impact on health and education outcomes in poorly governed countries and, consequently, do not influence economic growth and poverty alleviation. Conversely, Foreign Direct Investment (FDI) has a significant negative coefficient, indicating that the rise in FDI has a direct effect on diminishing the population of impoverished individuals by creating more job opportunities.

## CONFLICT OF INTEREST

The authors of this study declared no conflict of interest during the course of this research.

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