The Effect of Inflation, Government Expenditure, Population, and Wages on Poverty in Sumatra Island 2017-2021

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ABSTRACT

Poverty indicates a population's inability to meet average minimum needs. This study aims to analyze the impact of inflation, government spending, population, and wages on poverty in Sumatra Island. This observation is quantitative research and auxiliary data in the form of time series data using panel data from 2017 to 2021 in as many as ten provinces with panel data analysis, which is assisted by the Eviews 12 application. Based on the panel results, it is concluded that the variables of inflation, government spending, and wages significantly positively affect poverty in Sumatra. In contrast, population has no impact on poverty in Sumatra.

INTRODUCTION

Poverty is a classic problem in Indonesia that has been difficult to solve. Poverty has become a disease in economic development, including poverty on the island of Sumatra. However, problems that often occur are caused by the inflation rate, government spending, population, and wages. And these four problems can cause people difficulty in fulfilling their needs. Poverty has become the interest of governments in several worlds, especially in developing countries, especially Indonesia, because today's poverty problem has not been completely solved, so poverty that occurs in a country is considered a severe problem (Ningrum, 2017)

Theoretically, poverty is the inability to meet family or household needs such as food, drink, shelter, clothing, education, and health (Sukirno, 2010), (Sen, 1976) put forward a poverty theory. Poverty is not just a matter of income but consists of several dimensions. Together, these dimensions form the concept of poverty. In other words, a person is poor not because he is poor, not because he keeps enough income to meet his needs, but because his income is sufficient to meet his needs. The causes of poverty include lack of income and resources. Poverty is associated

with low employment opportunities, and those classified as poor are unemployed and often inadequate (Bustaman et al., 2021).

Based on data from the Statistics Library (BPS) in 2017-2021. Sumatra is an island where there are many poor provinces, including in 2017, namely Bangka Belitung at 76.20, in 2018, Bangka Belitung at 69.93, in 2019, Bangka Belitung at 67.37, in 2020, Bangka Belitung at 68.39 and in 2021, namely still Bangka Belitung at 72.71. Based on the statistical library agency data, the provinces on the island of Sumatra experienced poverty or fluctuations from 2017 to 2021. Speaking of the problem of previous economic activity, there are four causes of poverty as follows;

Inflation is an inconsistent price increase caused by a higher supply of products or assistance than producers can usually fulfill. High inflation is a level of stability that causes the price of goods or services to rise, resulting in poverty in Sumatra. Moreover, the inflation rate in Sumatra was obtained by the province of Aceh in 2017 at 4.25% in 2018, in the province of Riau Islands at 3.47% in 2019 obtained in the province of Lampung at 3.44% in 2020 at 3.59% and in 2021 obtained in the province of Bangka Belitung by 3.75%. Inflation that is too large will damage economic stability, cause the existing currency to depreciate, and then limit people's purchasing power, whereas inflation that is too weak is an indicator of people's purchasing power and will hamper people's purchasing power. economic growth (Sukirno, 2013)

Poverty is also not excluded from government spending; government spending does not exclude the problem of poverty; government spending in the economic sector has increased almost every year; spending is not just daily departmental spending but the preparation of materials or funds for economic activity—regulation of the purchase of products and services. Government spending must present funds to determine these policies. The government not only makes expenditures but also gets revenue. Government spending projects are carried out to help people experiencing poverty in their economic needs. Based on data obtained at BPS, government spending increased in 2017, namely in Aceh, amounting to 13,836.86 M; in 2018, namely in North Sumatra, amounting to 12,563.39 M; in 2019, namely Aceh amounting to 15,787.89 M, in 2020 namely still held by Aceh amounting to 13,192.2 M and in 2021 namely in Aceh 13,683.58 M.

The population in Sumatra will continue to increase from 2017 to 2021, so it can cause poverty, one of which is in terms of employment; therefore, the more the population on the island of Sumatra, the more difficult it will be for people to find work to meet their daily needs. The island of Sumatra, the province that has a vast population or often increases its population from 2017- to 2021, is in the province of North Sumatra 2017 14,262,100 thousand people in 2018, 14,415,391 thousand in 2019, 14,562,549 thousand people in 2020, 14,703,532 thousand people and in 2021 of 14,936,148 thousand people.

Wages are an income from work or money agreed upon from our results or services after work. Wages can be a tool that can help us in poverty. The debate on the impact of minimum wage on poverty is still an interesting issue worth discussing. We can explain that in Sumatra, the province that had an increasing wage in 2017 is the province of South Sumatra, amounting to Rp.2,266,722 in 2018 in the province of Bangka Belitung, amounting to Rp.2,755,444 in 2019, still in the province of Bangka Belitung Rp.2,976,706 in 2020 in the province of Bangka belting amounting to Rp.3,230,024 and the last in 2021 in the province of Bangka Belitung Rp.3,230,000.

Based on the above, this study aims to explore the impact of inflation, government spending, population, and wages on poverty in Sumatra from 2017 to 2021.

LITERATURE REVIEW
Poverty
Nurwati (2008) argues that poverty is a social problem still inherent in people's lives, and the definition of poverty continues to change along with the development of human civilization. Human age. According to Amartya Sen (1987) in Haughton and Shahidur (2012), poverty is related to the ability to perform social functions. Therefore, poverty occurs when people lack income, education, and health, so poverty is considered a multidimensional phenomenon.

According to the BPS definition (2016), Poverty is the inability to meet basic food and non-food needs, measured in economic, material, and material expenditure. Poverty is measured with a poverty line. The poverty line comprises the Food Poverty Line (FPL) and the Non-Food Poverty Line (NFPL). The food poverty line (FPL) is calculated based on the cost of alcoholic beverages and food needs. In contrast, the non-food poverty line is calculated based on alcoholic beverage needs such as clothing, education, and health.

Haughton and Shahidur (2012;3) believe that poverty is always linked to inequality and vulnerability because those who are not considered poor can become poor at any time when they experience problems such as financial crises and falling prices of agricultural products. The welfare dimension is essential because it influences each individual's behavior in terms of investment, appropriate product patterns and strategies, and perceptions of their situation.

On the island of Sumatra it has been explained in the background or introduction that the island of Sumatra is indeed the poorest, and there are even several poor provinces. There are several causes of poverty in Sumatra, among others;

Inflation

Inflation is a valuable component of the economy, and its growth rate is always unstable. If the economy is unstable, the prices of goods and services will continue to rise. Therefore, the higher the price of goods and services, it is clear that people who were initially able to fulfill their daily needs are now calculating more to buy these goods due to price increases (inflation). According to Mandala Manurung (Kasim, 2021), inflation is defined as a general and sustainable increase in commodity prices.

Government Expenditure

Government expenditure is an output activity funded by the government in carrying out activities; the more activities carried out, the government can also spend these funds to fulfill its financing. Government spending can help people fulfill their consumption. The greater the government activity, the greater the public expenditure.

Total population

Presidential Decree No. 23/2006 explains the meaning of a resident as an Indonesian citizen or migrant who resides in Indonesia. Meanwhile, according to BPS, a resident has lived in a geographical area for more than six months or intends to stay. So, the definition of population is the number of people who inhabit an area or region within a certain period.

Wages

Wages are salaries set by the company and given to employees that will be received monthly. Wages are one of the income bases, and if the income base decreases or remains the same, then the utility will also decrease or remain the same, undoubtedly impacting the poverty level (Ningrum, 2017). In determining the minimum wage value, if the wage value set by the government increases, employment opportunities will also increase

METHODS

This study uses secondary data for annual calculations from 2017-2021; the data used in this analysis is time series data. The sources used are data from BPS on the island of Sumatra, including inflation, government spending, population, and wages in 2017-2021. This study uses panel data. The analysis model in this study is as follows;

$$Y = \beta 0 + \beta 1 X1_{it} + \beta 2 X2_{it} + \beta 3 X3_{it} + \beta 4 X4_{it} + ei$$

Notes: Y = Poverty = Sumatera cross-section data (10 provinces), t = Sumatera time series data (2017- 2021)

Y =Poverty

$\beta 0$=Constant

BX1 = Regression Coefficient on Inflation Variable

BX2= Regression Coefficient on Government Expenditure Variable

BX3= Regression Coefficient on Total Population Variable

BX4= Regression Coefficient on Wage Variable

$X1$ = Inflation

$X2$ = Government Expenditure

$X3$ = Total Population

x4 = Wages

RESULTS

Cow test

Effect Test	Statistic	d.f	Prob.
Cross-section F	2.238.441	-9,36	0.0420
Cross-section Chi-square	22.221.800	9	0.0082

The best model of the cow test is FEM. With Prob < 0.05

Hausman Test

Test Summary	Chi-Sq.Statistic	Chi-Sq.d.t	Prob.
Cross-section random	13.281.142	4	0.0100

The results provided by the Hausman test show that the best model chosen is FEM with random crosssection (0.0100) < a (0.05). Based on the results of data processing in the calculation of panel data regression analysis, the following equation model can be formed:

1.Coefficient Value

Variabel	Coefficient
C	1.844.650
X1	0.951323
X2	8.55E-05
X3	-9.38E-06
X4	8.24E-05

The constant value of 18.44650 indicates that the independent variable is equal to 0, so the poverty rate's value is 18.44650.

1. in the inflation variable (X1) of 0.951323, which indicates that for every 1% increase in inflation, poverty will increase by 0.951323.

2. the government expenditure variable (X2) is 8.55E-05, which indicates that every 1% increase in government expenditure will increase the poverty rate by 8.55E-05.

3. in the population variable (X3) of -9.38E-06, which means that if the population decreases or is negative 1%, poverty can decrease by -9.38E.06.
4. on the wage variable (X4) of 8.24E-05, which indicates that for every 1% increase in wages, poverty will increase by 8.24E-05.

2. Prob value (F-statistic)
P-Value Table

Prob(F-statisic)	0.000000

In this test, the statistical probability is 0.000000 P-value (0.00000) < a

3.Coefficient of Determination (R-square)

R-square
0.999941
Adjusted R-square
0.999919

The R square of 0.999941 explains the dependent variable, namely the poverty rate in 10 Sumatra provinces, by 99% from 2017 to 2021, and the rest of the explanation can be provided by other variables outside the 1% model. Adj R-squared (i.e., 0.999919) is an R-squared adjustment based on the number of observations and variables when using sample data.

4. Test of Partial Influence (t-test)
Table of t-test result

Variabel	Coefficient	Std.Error	t-Statistic	Prob
C	1.844650	4.691952	3.931518	0.0004
X1	0.951323	0.001929	493.0770	0.0000
X2	8.55R-05	4.06E-05	2.107173	0.0421
X3	-938E-06	6.64E-06	-1.412956	0.1663
X4	8.24E-05	2.80E-05	2.939039	0.0057

1. The t-table value is 2.00885529112. The t-statistic value on the inflation variable (X1) is 493.0770, the obtained t-statistic (493.0770)> t-table (2.008559112), the probability value (0.0000) < a (0.05). The positive coefficient value is 0.951323. The results obtained show that Inflation (X1) has a positive influence on poverty.
2. The t-statistic value of the Government Expenditure variable (X2) is 2.107173, the obtained tstatistic value (2.107173) < t-table (2.008559112).The probability value (0.042) < a (0.05) .The positive coefficient value is 8.55E-05. So, the results are given show that Government Expenditure (X3) affects poverty.
3. The t-statistic value on the Total Population variable (X3) amounted to -1.412956, the obtained tstatistic value (-1.412956) < t-table (2.008559112). The probability value (0.1663) > a (0.05). The positive coefficient value is -9.38E-06. So, the results show that the Total Population variable (X3) does not affect poverty.
4. The t-static value on the variable Wages (X4) amounted to 2.939036, the obtained t-statistic value (2.939036) > t-table (2.008559112). The probability value (0.0057) < a (0.05).The positive coefficient value is 2.80E-05. So, the results obtained shows that the variable Wages (X4) affects poverty.

DISCUSSION

Analysis of inflation on poverty in Sumatra

The test results show that inflation dramatically impacts people's ability to survive every day. This finding is in line with previous research conducted by Endrayani and Dewi (2016), Ningsih and Andiy (2018), Primandari (2018), and Mardiahillah. Empirical evidence from various studies places inflation as one of the causes of poverty. The inflation rate is a major concern for any country's economy. Therefore, efforts are made by the government to keep the inflation rate stable. A higher inflation rate is reflected in faster economic growth. The government's main guideline in fighting poverty in Indonesia is the measure of effectiveness and appropriateness of inflation (Samputra & Munandar, 2019).

Analysis of Government Expenditure on Poverty in Sumatra

Through the written test results, government spending significantly influences the poverty rate. Government spending is an output activity funded by the government in carrying out activities; the more activities carried out, the government can also spend these funds to meet financing; in other words, government spending is measured or summed up by direct and indirect spending on poverty in Sumatra as Rostow (1959) argues that government spending has an essential role in the development of a region, which is directly related to poverty alleviation efforts. This can be overcome by issuing various poverty alleviation programs such as government spending, which must be more effective in absorption over a more extended period in order to help people experiencing poverty, one of which is in Sumatra.

Analysis of population poverty in Sumatra

From the point of testing, the impact of population on poverty is insignificant or has no impact on poverty in Sumatra. Population is a portion of the people who live in an area and have a permanent job there. Malthus believed that continued population growth was necessary to support additional demand. However, on the other hand, there are concerns that high population growth will negatively affect economic growth and poverty prospects. However, this only applies to the island of Sumatra in terms.

Wage analysis of poverty in Sumatra

The test results say that wages affect poverty. According to Law Number 13 of 2004, wages are a worker's rights or expressed in the form of money as compensation paid to the worker or worker by the employer or employer by a predetermined agreement or agreement. Nominally, wages on the island of Sumatra are unstable or sometimes increase. However, what makes people poor despite having stable wages is the relationship caused by lifestyle, installments, debts, and other expenses that must be commensurate with wages. Therefore, to prevent this, one must be able to minimize or balance expenses by their income or must have savings saved for the future.

CONCLUSION

Based on the study results above, the inflation variable has a significant positive effect on poverty. Moreover, the government expenditure variable from 2017 to 2021 also positively influences poverty on the island of Sumatra, while the population variable has no effect on poverty, and the wage variable has a significant influence or effect on poverty.

SUGGESTION

The author hopes that the Sumatran government will be more agile in stabilizing Inflation, Government Expenditure, and Wages to have an increasing influence on poverty in Sumatra.

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