Impact of Minimum Wage, Inflation, and Economic Growth on Poverty in Yogyakarta Province

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Abstract

Poverty is a very complex problem caused by many factors. Poverty itself means that individuals lack the ability to fulfill the basic needs of life. Regional autonomy established by Indonesia requires regional governments to manage their respective territories. Yogyakarta Province has the highest poverty rate on the island of Java. Poverty occurs due to microeconomic factors. Minimum wages, inflation rates, and economic growth are among the macroeconomic factors that cause poverty. The aim of this research is to find out how Yogyakarta Province’s minimum wage, inflation rate, and economic growth affect the province’s poverty level. Panel data regression models are used in this type of quantitative research. Cross-sectional data from districts and cities in Yogyakarta Province for 2009–2023 were used in this study. Based on research findings, the poverty level of DI Yogyakarta Province is largely determined by the minimum wage and economic growth variables, while it is not influenced by the inflation variable.

Keywords: Poverty, Minimum Wage, Inflation, Economic Growth

Introduction

Poverty is a problem that exists in every country, especially developing countries like Indonesia (Alifah & Imaningsih, 2023). Poverty is a very complex problem and ties together various existing economic factors. Alleviating poverty must be carried out comprehensively because poverty is a complex problem that binds all existing economic factors (Rozi et al., 2019). Poverty is a form of a person's limitations in fulfilling clothing, shelter, food, education, and health (Mubyarto, 2004). Poverty is attached to many factors, so the problem of poverty is a very complex problem that ties together various economic factors (Hakim & Wijaya, 2023). Macroeconomic factors such as minimum wages, inflation, and economic growth are still...
closely linked to the shadow of poverty. Indonesia has a fluctuating poverty trend and tends to decline over several periods. The causes of poverty in Indonesia can be related to real wages, unemployment, and other macroeconomic factors (Putri & Putri, 2021). The theory put forward by Nukshe regarding the vicious circle of poverty emphasizes that the cause of poverty occurs due to the failure of a perfectly competitive market, while the failure of a perfectly competitive market will affect many macroeconomic factors.

Poverty alleviation policies can be suppressed with policies handled through the macroeconomics of each country. Good and appropriate macroeconomic policies will also have an impact on the labor market, and policies to strengthen real wages for workers can improve workers' welfare (Ames et al., 2001). Indonesia implements a regional autonomy system, where regional governments have authority within their respective regional countries. According to Suparlan in Sari (2021), poverty is closely related to a person's income, and this will affect the individual's welfare. Viewed from the negative side, increasing poverty will have a complex impact on various existing factors. Poverty that continues to increase will have an increasingly severe impact on the country's macroeconomy (Feriyanto et al., 2020).

Minimum wages are a macroeconomic factor that can influence the welfare of workers. Wages that tend to be unequal in each country will cause poverty because the low quality of education will also affect the quality of human resources (Banerjee & Duflo, 2011). An imbalance in the mindset of society will have an impact on macroeconomic factors, resulting in low productivity in society (Kuncoro, 2004). Minimum wages are related to poverty, according to a study conducted by explaining that policies regarding minimum wages can reduce poverty rates in several countries (Burkhauser et al., 2023). Apart from that, research conducted by Fajriansyah & Chandriyanti (2022) in South Kalimantan Province explains that the minimum wage has a significant relationship with the existing poverty level. Yogyakarta
Province has set an increase in the minimum wage in the range of 5-9% over several periods. This is intended to be one of the factors that can reduce the existing poverty level.

![Figure 2 Minimum Wage in Yogyakarta Province](source: BPS (2024))

Based on research conducted in Lamongan Regency, the minimum wage plays a negative role in poverty levels, which means that every increase in the minimum wage will reduce the existing poverty level (Hanifah & Hanifa, 2021). It can be concluded that policies for dealing with poverty levels can be reduced by increasing the minimum wage. Wage determination is targeted by many factors, namely, minimum living requirements, consumer price index, wages in general based on region, capabilities of the company, labor market conditions, and the level of economic development (Simanjuntak, 1985). The government's role in setting minimum wages will also have an impact on reducing demand for labor because the ability of companies to pay individuals is taken into account (Law, 1998).

![Figure 3 Economic Growth, Inflation, and Poverty In Yogyakarta Province](source: BPS (2024))

Inflation means a prolonged increase in the price of an item. Inflation can affect the welfare of society because inflation will affect the value of society's purchasing power. Therefore, inflation in the short term will have a direct effect on poverty (Agenor, 2005). Inflation in Yogyakarta Province is fluctuating, with the highest inflation recorded in the past...
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five years in 2022 at 6.49. Based on research by Primandari (2019), inflation has a positive influence on poverty in South Sumatra province, and a decrease in the inflation rate can indicate that people's purchasing power is increasing. Inflation is a prolonged increase in the prices of goods and services. In terms of economic outlook, inflation is an increase in the prices of goods and services as a whole, which is caused by disruption of the flow of money in circulation and demand in society (Gilarso, 2013). Based on a study conducted by Simanungkalit (2023) where inflation has a positive relationship with poverty, if inflation increases, it will increase the level of poverty. Continuously increasing inflation and the absence of policies taken by the government will influence the increase in poverty levels (Sianturi, 2020).

Economic growth is a measure of the welfare of a country's society. This factor is very necessary because economic growth is a performance that must always be paid attention to by the state. Economic growth identifies the country's ability to generate additional income for the welfare of society in a certain period (Romi, 2018). Developing countries have economic growth that tends to slow down compared to developed countries, which means that the problem of poverty is still very complex in developing countries. The components of economic growth include investment, technological progress, and population growth, which are the means of a society's welfare (Todaro, 1994). The value of community welfare in a country can be seen from how much economic growth grows because the indicator to see economic performance is economic growth (Wayan Linggawati & Wayan Wenagama, 2022). As seen from the picture, economic growth in Yogyakarta Province fluctuates, and every year, the government continues to strive to increase economic growth. A study conducted in Yogyakarta showed a negative correlation between economic growth and existing poverty levels (Mari’atus et al., 2022).

Macroeconomic policies regarding wages that are very disparity in a province also result in the poverty rate decreasing more slowly. This, if supported by slow economic growth, will make the poverty rate continue to be a very complex problem. Provinces whose poverty rates are much higher than the national level are currently the main focus of national poverty alleviation efforts. In addition, provinces with high levels of poverty need to pay greater attention to macroeconomic policy issues. In this arena, the emphasis on starting to overcome poverty nationally needs to be placed on regions that have high levels of poverty by looking at the main causes of poverty. The implementation of regional autonomy aims for regional governments to be able to organize their respective regions. This can be implemented with regional governments needing to overcome poverty problems based on the main factors causing high poverty levels.

The problem of poverty in Indonesia is still quite complex. Emphasizing poverty rates in provinces that have high poverty rates compared to the national level needs to be done to overcome national poverty problems. In the last few decades, DI Yogyakarta Province has had a very high poverty rate. As seen in Figure 1, the poverty rate is still above the national rate. Policies regarding reducing poverty rates are still being implemented to reduce poverty rates in the highest provinces. The percentage of poverty in Yogyakarta Province has exceeded 10% for several decades. Yogyakarta is included in the Severe Poverty category. Research conducted by Ayuni Yosa in Yogyakarta in the 2000-2020 period showed that economic
growth had a significant negative relationship with the level of poverty in Yogyakarta Province. The causes of existing poverty can also occur due to macroeconomic or cultural factors, which are still very strong. The reason is that the policy that will be taken needs to be considered to determine whether a policy will shift the existing culture. Based on the phenomena and explanations that have been described, this research aims to see how much influence macroeconomic variables such as minimum wages, inflation, and economic growth have on poverty in Yogyakarta Province.

Literature Review

Poverty

According to the Central Statistics Agency, poverty is an individual who has an average expenditure per capita below the existing poverty line. Poverty is a form of limitation that an individual has in fulfilling the basic needs of life. Mubyarto (2004) explains that poverty is a form of limitation for an individual in terms of clothing, shelter, food, education, and health. Poverty is attached to many factors, so poverty is a very complex problem that binds various economic factors. Implementation to reduce poverty is necessary by implementing the stability of macroeconomic factors, such as the implementation of minimum wages, inflation control policies, and economic growth, because these macroeconomic factors are very tied to the welfare of society (Ames et al., 2001).

Minimum wage

Minimum wages are wages given by employers for services provided by workers. The economic theory defines minimum wages as based on the quantity of goods and services demanded by consumers, which, in this case, is explained in the labor market obtained from supply theory. The minimum wage is related to poverty. This is explained by the fact that minimum wage policies can reduce poverty rates in several countries (Burkhauser et al., 2023). In line with research by Fajriansyah & Chandriyanti (2022), in this case, the explanation is that the minimum wage has a negative correlation with the poverty level in South Kalimantan Province, where a high minimum wage reduces the poverty level.

Inflation

Inflation is a prolonged increase in the prices of goods and services. In the economic outlook, according to Gilarso (2013), inflation is an increase in the price of goods and services as a whole, which is caused by the increasing flow of money in circulation and demand in society. Research was carried out in North Sumatra Province to describe the relationship between inflation and poverty, where there was a positive correlation between inflation and existing poverty (Sianturi, 2020). This is in contrast to research in the city of Surabaya conducted by Amalia & Rachmawati (2022), where it is explained that inflation has no correlation with the existing poverty level. These differences in views can be caused by differences in tests carried out in research or different economic conditions between each region.
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**Economic Growth**

Economic growth, according to the theory explained by Keynes, is a picture where consumption carried out by each individual will influence the existing economy. Economic growth is a very important factor because it is related to people's welfare. This is because economic growth is related to people's productivity, accumulation of existing capital, and technological progress (Todaro, 1994). The correlation between economic growth and poverty is explained by research conducted in Karangasem Regency, where research shows that there is a negative correlation between economic growth and poverty (Wayan Linggawati & Wayan Wenagama, 2022). This is in line with research conducted in Yogyakarta, where there is also a negative correlation between economic growth and the existing poverty level (Mari’atus et al., 2022).

**Research Method**

This research uses secondary data from five districts and cities in Yogyakarta province for the period 2009-2023. Poverty is the dependent variable in this research, and the minimum wage, inflation, and economic growth are the research's independent variables. The poverty variable in this research is expressed in percent, the inflation and economic growth variables in the research are expressed in percent, and the minimum wage variable in this research is expressed in rupiah. The analysis used panel data regression. Panel data regression is a combination of data depictions that connect time series and latitude so that it can produce efficient and clear research (Junaidi, 2011). The data used in the analysis are minimum wages, inflation, economic growth, and poverty. The data in the research comes from publications from the district and city central statistics agencies in Yogyakarta province.

This research utilizes a quantitative approach. An explanation of the quantitative approach is a description of the approach taken by looking at numbers in digital publications to see an existing phenomenon. The phenomenon of poverty is seen from several causal factors, and poverty is a complex problem that binds several economic factors from the available phenomena. Research is carried out based on several causal factors to see the influence that the independent variable has on the dependent variable. The research was carried out by testing model selection using the Chow test and Hausman test. The model selection test is used to see a comparison between the Fixed Effect Model (FEM) and the Random Effect Model (REM) as a good regression builder in research. Next, a hypothesis test is carried out to see the influence that the independent variable has on the dependent variable. Testing classical assumptions is needed if the model chosen is a fixed effect model. Panel data regression can be seen in the following equation:

\[
\text{Poverty}_{it} = \alpha + \text{UMP}_{it} \beta + \text{INF}_{it} \beta + \text{PE}_{it} \beta + e_{it}
\]
**Result**

The classical assumption test is needed because the building model is a Fixed Effect Model. The classical assumption test is used to get regression results that are in accordance with the BLUE (Best Linear Unbiased Estimation) assumption. The first step of classic testing is as follows:

a) A normality test is a test used to see whether the data used in research is normally distributed or not. The data is determined by passing the normality test by looking at the probability of the data being > 0.05. The research normality test results were 0.51097 > 0.05, indicating that the data collection was regularly distributed, so it passed the normality test.

b) The multicollinearity test is to see the correlation between the independent variables being tested. Determination of whether a variable passes the multicollinearity test by looking at the VIF value < 10. The results of the multicollinearity test have a VIF X1 value of 1.225 < 10, a VIF X2 value of 1.259 < 10, and a VIF, which means there are no symptoms of multicollinearity in the study.

c) The heteroscedasticity test is a test that shows the difference in the variance of a security residual from previous observations. Heteroscedasticity test results of 0.268 > 0.05 indicate that there are no symptoms of heteroscedasticity.

**Table 1 Classical Assumption Test Result**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Statistic VIF</th>
<th>C</th>
<th>Minimum Wage</th>
<th>Inflation</th>
<th>Economic Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heteroscedasticity test</td>
<td>NA</td>
<td>0.7431</td>
<td>0.7791</td>
<td>0.7489</td>
<td></td>
</tr>
<tr>
<td>Normality Test</td>
<td></td>
<td>0.51097</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on the research results, the macroeconomic variables used, namely minimum wages, inflation, and economic growth, can explain the poverty level variable by 96%. The coefficient of determination indicates how much the independent variable can influence the dependent variable during the research. This can be explained by the variables of

**Table 2 Statistic Test Result**

<table>
<thead>
<tr>
<th>Statistic Test Result</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adj R-squared</td>
<td>0.964547</td>
</tr>
<tr>
<td>Prob F-statistic</td>
<td>0.000000</td>
</tr>
</tbody>
</table>

a. Coefficient of Determination

Based on the research results, the macroeconomic variables used, namely minimum wages, inflation, and economic growth, can explain the poverty level variable by 96%. The coefficient of determination indicates how much the independent variable can influence the dependent variable during the research. This can be explained by the variables of
minimum wage, inflation, and economic growth, which account for 96% of the poverty level in cities and districts in DI Yogyakarta Province.

b. F-Test

The F test is a description of a test to explain whether one independent variable in research has a joint effect on the dependent variable. From the test findings, the f test results have a probability value of 0.0000, which shows that the minimum wage, inflation, and growth variables together, the economy has a relationship with the level of poverty in cities and districts in Yogyakarta province.

<table>
<thead>
<tr>
<th>Variable</th>
<th>C</th>
<th>Minimum Wage</th>
<th>Inflation</th>
<th>Economic Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coefficient</td>
<td>20.02504</td>
<td>-3.86362</td>
<td>0.011823</td>
<td>-0.12470</td>
</tr>
<tr>
<td>Probability</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.8688</td>
<td>0.0206</td>
</tr>
<tr>
<td>t-Statistic</td>
<td>33.03439</td>
<td>-13.59396</td>
<td>0.165790</td>
<td>-2.371658</td>
</tr>
</tbody>
</table>

The T-test is a test that partially shows the influence of the independent variable on the dependent variable. In this case, seen from Figure 1, it can be explained that:

a) Based on the test results, the effect of the minimum wage (X1) on poverty (Y) is 13.59396 > 2.288575, which means the calculated t value > t table indicates that H0 is rejected and H1 is accepted, in relation to the minimum wage variable it has an influence on the poverty level in Yogyakarta Province.

b) Based on the test results, the effect of Inflation (X2) on Poverty (Y) has a value of 0.165790 > 2.288575, which means t count < t table. This indicates that H0 is accepted and H1 is rejected. In terms of the partial relationship, the inflation variable has no influence on the poverty level in Yogyakarta Province.

c) Based on the test results, the effect of economic growth (X3) on poverty (Y) has a value of 2.371658 > 2.288575, which means that t count > t table indicates that H0 is rejected and H1 is accepted, in terms of the variable Economic Growth has an influence on the level of poverty in Yogyakarta Province.

The Effect of Minimum Wage on Poverty Levels

The minimum wage variable in this study has a significant negative influence on the poverty level in Yogyakarta Province for the 2009-2013 period. The coefficient value of 3.87224 means that an increase in the minimum wage of 1% will reduce the existing poverty rate by 3.87224%. This result is in line with research conducted by Hapsari, where the minimum wage has a significant negative relationship with poverty and has a role in reducing the number of poor people. Determining an increase in the minimum wage with the aim of improving the welfare of workers is a form of emphasizing the existing level of poverty. The increase in minimum wages in cities and districts in Yogyakarta Province in the 2009-2013 period was around 5-9%. However, the increase is still very unequal in several provinces, such
as Gunungkidul district and Kulonprogo district, where the poverty level in these two districts is the largest contributor to the poverty level of Yogyakarta Province. The unequal increase in the minimum wage means that the poverty rate is still difficult to reduce. This result is in accordance with the study by Hanifah & Hanifa (2021), which found that the minimum wage has a negative influence on poverty levels. This condition is in accordance with the ideas of (Burkhauser et al., 2023), where the minimum wage is directly related to existing poverty. The minimum wage itself can be designed to improve the welfare of existing workers. Sulistiawan (2023) explains that the minimum wage has a big impact on poverty in Java Island Province.

The Effect of Inflation on Poverty Levels

Based on the test findings, the macroeconomic variable inflation has a probability value for the inflation variable of 0.8688, indicating that based on the estimation findings carried out, inflation does not have a real impact on poverty in Yogyakarta Province. This result is in line with research by Amalia & Rachmawati (2022) that shows that inflation has no relationship with existing poverty. In the 2020-2022 period, the world economy began to slow down. This impacted all macroeconomic factors, where the purchasing power of the Indonesian people was very weak during that period. The inflation rate in cities and districts in Yogyakarta Province refers to the inflation rate in Yogyakarta City. This results in research data not varying and several other macroeconomic factors experiencing disturbances so that inflation in the 2009-2023 period is not the cause of the increase in poverty levels. Which exists. The results of this research are in line with research conducted by Susanto & Pangesti (2020) and Karuniawan & Soelistyo (2022) in Indonesia, which explains that Indonesia's poverty level is not affected by inflation.

The Effect of Economic Growth on Poverty Levels

Based on the test findings, the macroeconomic variable economic growth has a significant relationship with the poverty level in Yogyakarta Province, with a probability value of 0.0206. In line with Mankiw's theory that economic expansion gives more power to marginalized groups, this illustrates that there is a correlation that connects economic growth with poverty levels. Good economic growth provides prosperity for the community, and if the community is prosperous, it will reduce the level of poverty. The results of this research are in line with research in Yogyakarta Province, where growth had an impact on poverty in Yogyakarta from 2013 to 2019 (Mari’atus et al., 2022). Indicators for assessing community welfare are seen from economic growth. Increased economic growth will produce employment opportunities for individuals, which will increase welfare.

Conclusion

Based on the results described, it can be concluded that several macroeconomic factors in the research have a significant relationship with the level of poverty in cities and districts in Yogyakarta Province. Minimum wages have a negative influence on poverty levels, where policies regarding minimum wages must be emphasized appropriately in order to reduce the existing poverty rate. The minimum wage increase is determined with the aim of increasing the
welfare of workers. The inflation variable in the research has no relationship with the existing poverty level. The control of the existing inflation rate with the income obtained by the community does not mean that the inflation rate has no relationship over several decades. If the inflation rate continues to increase quite large, then inflation could be the reason for the increase in the existing poverty rate. The economic growth variable in the research has a negative relationship with the existing poverty level. Continuously increasing economic growth will cause the poverty level to decrease because economic growth is an indicator of assessing the welfare of society in a country. Policies to increase economic growth need to be carried out by the government, which will make society more productive and active in managing the resources owned by each region, as well as opportunities for each individual to obtain work.

References


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