

Analysis Of The Determining Factors Of Unemployment Rates In Indonesia

Yophi Kristiani Zai¹, Azhari M Fauzi², Rahul Guskar Hadi Wijaya³,
Atra Muhammad Surya⁴, and Erni Febrina Harahap⁵

^{1,2,3,4,5}Economic Development, Hatta University, Padang, Indonesia

*Corresponding Author: kristianiyophi@gmail.com

ABSTRACT

Unemployment is an economic phenomenon that is a concern for a country. Unemployment itself is a situation where someone who is in the labor force wants to get a job but cannot get it. The importance of this research is to see the effect of inflation, provincial minimum wage and economic growth on poverty in Indonesia. Inflation is a situation where the prices of goods and services in general experience a continuous and significant increase within a certain period of time, provincial minimum wage (UMP) is the minimum wage set by the provincial government for workers in the region, economic growth is a process of changing economic conditions that occur in a country continuously towards conditions that are considered better within a certain period of time. This study uses secondary data processing sourced from the Central Bureau of Statistics (BPS) with multiple linear regression, from 1990-2023. The results of data processing show that inflation and provincial minimum wage have a positive and significant effect on unemployment in Indonesia, while economic growth has a negative and insignificant effect.

Keywords: *Inflation, Provincial Minimum Wage, Economic Growth, Unemployment.*

1. INTRODUCTION

Unemployment is a very complex problem because it affects and is influenced by several factors that interact with each other following a pattern that is not always easy to understand. If unemployment is not addressed immediately, it can cause social insecurity and potentially result in poverty (BPS, 2021). Unemployment is a situation where a person who belongs to the labor force wants to get a job but has not yet obtained it. A person who does not work, but is not actively looking for a job is not classified as unemployed (Sukirno, 2010). Unemployment cannot be separated from one of the problems faced by developing countries in the world, including Indonesia. Unemployment is still an actual problem that has been discussed for a long time since the fall of the new order and Indonesia was labeled as a country that was quite disturbed in its economic development, one of the goals of national development is to improve people's welfare. Indonesia as a developing country must make many changes to support national development. This aims to create national stability, a good investment climate, and high economic growth so that it can reduce the unemployment rate in Indonesia.

Some of the variables that can affect unemployment are Inflation, Provincial Minimum Wage, and Economic Growth. Inflation is a continuous increase in price increases in a country. The problem that will be faced if inflation is not addressed is that economic growth will slow down, therefore it will affect the slowdown in labor absorption. With a slowdown in the workforce and the growth of the labor force that is increasing, it will cause high unemployment. Inflation is an economic phenomenon that is always interesting, especially in terms of its effect on unemployment. Inflation and unemployment are economic problems in every country whose continuous development has limited economic growth. Domestic failure or shock will cause price fluctuations in the domestic market and ultimately cause economic inflation (Baasir, 2003).

Another variable that can affect unemployment is the Provincial Minimum Wage. The wage level is also suspected to have a strong influence on the unemployment rate. Wage is compensation received by one work unit in the form of the amount of money paid. The relationship between the minimum wage and the unemployment rate is that the higher the amount of wages set by the government, it will result in a decrease in the number of people working in the country (Kaufman and Hotchkiss, 1999).

Another variable that can affect unemployment is economic growth. In a simple sense, growth in the macroeconomy is an increase in GDP (Gross Domestic Product) which means an increase in national income (Tambunan, 2003: 41). Economic growth is one of the most important factors in assessing the performance of an economy, especially to analyze the results of economic development that has been carried out by a country or region. The economy is said to experience growth if the production of goods and services increases from the previous year.

2. LITERATURE REVIEW

2.1 Unemployment

According to the Central Statistics Agency (BPS) in employment indicators, unemployment is the population who do not work but are looking for a job or are preparing a new business or the population who are not looking for a job because they have been accepted for work but have not started working.

Unemployment is a situation in which a person who belongs to the labor force wants to get a job but they have not been able to get a job (Sadono Sukirno, 2005). Unemployment can occur due to imbalances in the labor market. This indicates that the number of workers offered exceeds the number of workers requested

2.2 Inflation

Inflation is a continuous increase in the average price level of an economy due to an increase in aggregate demand or a decrease in aggregate supply. Inflation due to an increase in aggregate demand is often called demand-pull inflation, while inflation due to a decrease in aggregate supply is often called cost-push inflation (McEachern, 2000:133).

2.3 UMP (Provincial Minimum Wage)

According to Kaufman and Hotchkiss in Alghofari (2011), the determination of the wage level carried out by the government can have an impact on the unemployment rate in the country. The relationship between wages and unemployment is also explained in A.W. theory. Phillips, where the wage rate has an opposite relationship with the unemployment rate.

2.4 Economic Growth

Economic growth shows the extent to which economic activities can generate additional income or people's welfare in a certain period. The economic growth of a country or region that continues to show an increase illustrates that the economy of the country or region is developing well, this indicates that the decline in a country's GDP can be associated with the high number of unemployment in a country (Mankiw, 2007).

2.5 Relationship of Independent Variables with Bound Variables

2.5.1 Inflation Towards Unemployment

Inflation and unemployment are also interpreted as indicators to measure the economic health of a country. High inflation will slow economic growth, reduce available job opportunities, and increase the unemployment rate. These facts show that there is a trade-off between inflation and economic growth (Thanh, 2015).

According to the Grammy (2019), there is a long-term inflation-unemployment relationship that can cause problems for policymakers. If the policy continues to be considered, a lower unemployment rate will accelerate inflation that is already rapidly increasing rates and inflation control efforts are likely to increase the unemployment rate, which is still high.

2.5.2 Provincial Minimum Wage for Unemployment

According to Malthus (2008) stated that the minimum wage has a significant effect on unemployment While according to Todaro (2000), the higher the level of wages given to workers, the lower the level of labor absorption. The determination of the wage level carried out by the government of a country will affect the magnitude of the existing unemployment rate. The higher the amount of wages set by the government, the fewer people will work in the country (Kaufman and Hotchkiss, 1999). The higher the wage level, the less the employer's demand for labor. With an

increase in the wage level, it will reduce the number of workers needed, which means that it will trigger an increase in the number of unemployed (Haryani, 2002).

2.5.3 Economic Growth Towards Unemployment

The relationship between economic growth and unemployment can be explained by Okun's law, named after Arthur Okun, the economist who first studied it (Demburg, 1985:53). Stating that there is an empirical influence between unemployment and output in the business cycle. The results of the empirical study show that the addition of 1 (one) point of unemployment will reduce GDP (Gross Domestic Product) by 2 percent. This means that there is a negative influence between economic growth and unemployment and vice versa, unemployment on economic growth. Dornbusch, Fischer and Startz (2004), stated that economic growth and unemployment are very closely related. High economic growth will create a scheme to reduce unemployment. Furthermore, with high economic growth, it is expected to create output growth, so it takes a lot of labor to pursue this increase in output capacity.

3. METHODS

This study uses the multiple linear analysis method. In this analysis, it is useful to bind two or more variables. In conducting this analysis, the author determined Unemployment as the dependent variable (Y) while for the independent variables, namely: Inflation (X1), UMP (X2), and PE (X3), by looking at the extent to which the independent variable affects the dependent variable.

To see the extent of the relationship between the dependent variable and the independent variable, the multiple linear regression structural equation is used as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

$$PNG = \beta_0 + \beta_1 INFLATION + \beta_2 UMP + \beta_3 PE + \varepsilon$$

Where:

PNG	= Unemployment(%)
Inflation	= Inflation (%)
UMP	= Provincial Minimum Wage(Rupiah)
PE	= Economic Growth (%)
β_0	= Regression Constant
ε	= Error
$\beta_1 \beta_2 \beta_3 \beta_4 \beta_5$	= Coefficient of Independent Variables

Variable Operational Definition

Variable	Variable Description	Data Source	Unit
PNG (Y)	Unemployment is a situation where a person who belongs to the labor force wants to get a job but has not yet obtained it. A person who does not work, but is not actively looking for a job is not classified as a bully (Sukirno, 2010).	BPS, BI	Percent (%)
Inflation (X1)	Inflation is an increase in prices in general in a relatively short period of time (Harahap, 2019)	BPS, BI	Percent (%)
UMP (X2)	UMP or Provincial Minimum Wage is the minimum wage standard that applies in a province.	BPS, BI	Rupiah
PE(X3)	Economic growth is the increase in production in the long term that a country produces for its people	BPS, BI	Percent (%)

4. RESULTS AND DISCUSSION

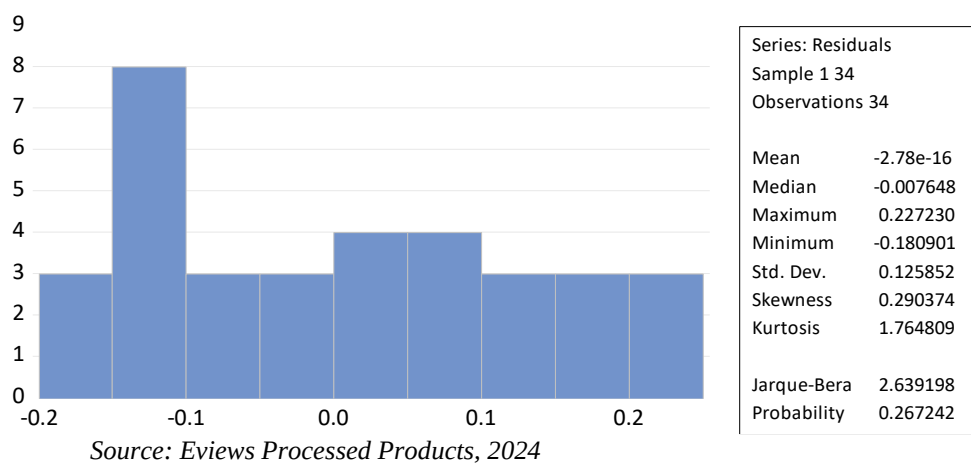
4.1 Classical Assumption Test

The classical assumption test is a statistical requirement that must be met in the analysis of multiple linear regression based on ordinary least square (OLS). To ensure that the regression model obtained is the best model, in terms of estimation accuracy, unbiased, and consistent, it is necessary to test classical assumptions (Juliandi et al., 2014).

4.2 Normality Test

This test was carried out to find out whether the residual values were spread normally or not. Using the Jarque-Bera test or J-B test, compare the JB count with the X2 table. If JB calculates < the value of X2 of the table, the data is distributed normally or the probability value < the specified degree of confidence (Imam, 2009).

Table 1. Normality Test Results



Based on the results of the residual normality test that has been carried out, a probability value of 0.267242 was obtained. The resulting probability value is above 0.05 so it can be concluded that all the research variables used have been distributed normally, so that the data processing stage can be continued.

4.3 Multicollinearity Test

The Multicollinearity Test is used to detect the presence or absence of a relationship between some or all of the independent variables in the regression model. Multicollinearity is a condition in which independent variables are in a linear condition with other variables. This means that if there is no correlation in the variables used, it can be said that there is no multicollinearity. In this method, when the correlation coefficient is above 0.80, it can be said that there is multicollinearity. Likewise, if the correlation coefficient is relatively low or below 0.80, it can be said that multicollinearity does not occur.

Table 2. Multicollinearity Test Results

Variance Inflation Factors
Date: 07/19/24 Time: 23:43
Sample: 1 34
Included observations: 34

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	0.056337	109.9396	NA
LOG_INF	0.006587	9.061545	1.277072
LOG_UMP	0.001306	81.78945	1.295537
LOG_PE	0.004751	4.530495	1.024684

Source: Eviews Processed Products, 2024

Based on the results of the test of the table above, it can be seen that the independent variable used in this study has a coefficient below 10 so it can be concluded that the independent variable used in this study has been free from the symptoms of multicollinearity, so that the next stage can be carried out.

4.4 Heteroscedasticity Test

The heteroscedasticity test is to test whether in the regression model there is a variance inequality from one residual observation to another. To determine whether or not heteroskedasticity occurs or not can be done by the Breusch-Pagan-Godfrey Test. If the variance from the residual of one observation to another is fixed, then it is called Homoskedasticity and if the variance is different it is called Heteroscedasticity. A good regression model is one that is Homoskedasticity or no heteroscedasticity occurs.

Table 3. Heteroscedasticity Test Results

Heteroskedasticity Test: Breusch-Pagan-Godfrey			
Null hypothesis: Homoskedasticity			
F-statistic	0.597382	Prob. F(3,30)	0.6217
Obs*R-squared	1.916605	Prob. Chi-Square(3)	0.5899
Scaled explained SS	0.570611	Prob. Chi-Square(3)	0.9031

Source: Eviews Processed Products, 2024

Based on the results of the test above, where the probability of chi-square is above 0.05. It can be concluded that the independent variables in this research model have been free from the symptoms of heteroscedasticity. So that the next stage of data processing can be carried out.

4.5 Autocorrelation Test

The Autocorrelation Test aims to test whether there is a correlation between the perturbation error in the t-period and the perturbation error in the t-1 period (previously). If autocorrelation occurs, it is called an autocorrelation problem. To determine whether or not there are autocorrelation symptoms, it can be done by the serial correlation (LM) Test. By paying attention to the number of observations and the number of independent variables or looking at the calculated in addition, it can also be seen from the probability value of chi-squares, which if the probability value is greater than the selected value then it means that there is no autocorrelation problem.

Table 4. Autocorrelation Test Results

Breusch-Godfrey Serial Correlation LM Test:			
Null hypothesis: No serial correlation at up to 2 lags			
F-statistic	59.92834...	Prob. F(2,28)	0.1628
Obs*R-squared	27.56133...	Prob. Chi-Square(2)	0.3545

Source: Eviews Processed Products, 2024

Based on the results obtained, it shows that the probability value of chi-square is above 0.05. So it can be concluded that there is no autocorrelation deviation. So that further data analysis stages can be carried out immediately.

Table 5. Multiple Linear Regression Test Results

Dependent Variable: LOG_PNG
Method: Least Squares
Date: 07/19/24 Time: 21:34
Sample: 1 34
Included observations: 34

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.364228	0.237354	-1.534538	0.1354
LOG_INF	0.186954	0.081162	2.303454	0.0284
LOG_UMP	0.179384	0.036139	4.963654	0.0000
LOG PE	-0.027286	0.068925	-0.395875	0.6950
R-squared	0.452274	Mean dependent var		0.772571
Adjusted R-squared	0.397502	S.D. dependent var		0.170051
S.E. of regression	0.131995	Akaike info criterion		-1.101972
Sum squared resid	0.522682	Schwarz criterion		-0.922400
Log likelihood	22.73352	Hannan-Quinn criter.		-1.040733
F-statistic	8.257313	Durbin-Watson stat		0.577572
Prob(F-statistic)	0.000374			

Source: Eviews Processed Products, 2024

The results of data processing using multiple linear regression with an equation model

$$\text{PNG} = \beta_0 + \beta_1 \text{INF} + \beta_2 \text{UMP} + \beta_3 \text{PE} + \varepsilon \text{ is as follows :}$$

$$\text{PNG} = -0.364228 + 0.186954 \text{INF} + 0.179384 \text{UMP} - 0.027286 \text{PE}$$

Based on the results of the above estimation, it can be concluded that:

1. The result of estimating the regression equation obtained a constant of -0.364228 if the independent variables of inflation, provincial minimum wage, and economic growth are equal to zero, then unemployment in Indonesia decreases by 0.36 percent.
2. The results of the estimation of the regression equation of the inflation variable produce a coefficient value that has a positive and significant relationship with unemployment, which is 0.186954 and 0.0284, meaning that if inflation rises by 1 percent, unemployment in Indonesia increases by 0.18 percent.
3. The results of the estimation of the regression equation of the provincial minimum wage variable produce a coefficient value that has a positive and significant relationship with unemployment, which is 0.179384 and 0.0000. This means that if the UMP increases by 1 rupiah, unemployment increases by 0.17 percent.
4. The results of the estimation of the regression equation of economic growth variables produce coefficients that have a negative and insignificant relationship with unemployment, which are 0.027286 and 0.6950, meaning that if economic growth increases by 1 percent, unemployment decreases by 0.02 percent.

When economic growth occurs, often not all resources, including labor, are not utilized optimally. If real economic growth is lower than potential growth, there will be an output gap that causes unemployment to remain high even if economic growth rises. The results of Okun's research, which later became known as the concept of Okun Law, found a negative relationship between economic growth and the unemployment rate. For every change in economic growth of 2-3% affects 1% of the unemployment rate and vice versa 1% of unemployment can affect 2-3% of economic growth.

5. CONCLUSION

Based on the results of this study, it can be concluded that inflation has a positive and significant relationship with the unemployment rate in Indonesia, high inflation will slow down economic

growth, reduce available job opportunities, resulting in an increase in the unemployment rate. The Provincial Minimum Wage (UMP) has a positive and significant relationship with unemployment in Indonesia. The higher the level of wages given to workers, the lower the rate of labor absorption which ultimately increases unemployment. Meanwhile, economic growth have negative and insignificant relationship to the unemployment rate in Indonesia. The high unemployment rate causes national income and economic activities to decline with declining economic growth causing people's income to decline and high unemployment. When economic growth occurs, often not all resources, including labor, are not utilized optimally. If real economic growth is lower than potential growth, there will be an output gap that causes unemployment to remain high even if economic growth rises. The results of Okun's research, which later became known as the concept of Okun Law, found a negative relationship between economic growth and the unemployment rate. For every change in economic growth of 2-3% affects 1% of the unemployment rate and vice versa 1% of unemployment can affect 2-3% of economic growth.

Advice to the government as a policymaker in Indonesia is that the government must pay attention to the rate of inflation so that the unemployment rate in Indonesia does not increase significantly, the government should pay more attention to the determination of the provincial minimum wage which can benefit both parties, namely workers and employers, the government must pay attention to the rate of economic growth by considering the unemployment rate in Indonesia. Suggestion to researchers who intend to conduct further research, it is hoped that they can add independent variables that are relevant to the influence on unemployment such as the Human Development Index (HDI), foreign investment and so on in order to increase the accuracy and accuracy of research results in the future.

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