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Factors Affecting Unemployment In Maluku Province

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Article Info	ABSTRACT
Keywords: Regional Government Expenditures, Interest Rates, Policy Synergy, Unemployment..	The research objective is to determine the effectiveness of fiscal and monetary policies in overcoming the problem of unemployment in Maluku Province. The research method used is quantitative research, using time series secondary data with a data range from 2011-2023. The research data consists of Maluku Province government expenditure data, BI Rate data, and Maluku Province Open Unemployment Rate (TPT) data. Data comes from the official website of the Indonesian Central Statistics Agency (BPS) and the Directorate General of Fiscal Balance, Ministry of Finance of the Republic of Indonesia (Djpk Kemenkue), the analysis tool uses multiple regression, data is obtained with the help of the Eviews 12 application. The research results partially show the influence of fiscal policy variables on the unemployment variable has a negative regression coefficient with prob. t-statistic is less than α 5%, while the influence of the monetary policy variable on the unemployment variable has a positive regression coefficient with prob. t-statistic is greater than α 5%, simultaneously the fiscal and monetary policy variables on unemployment have prob. f-statistic is smaller than α 5%. Research conclusions (1) fiscal policy has a significant effect on reducing the unemployment rate, (2) monetary policy has an insignificant effect on increasing the unemployment rate, (3) fiscal and monetary policy together have an effect on the unemployment rate in Maluku Province .
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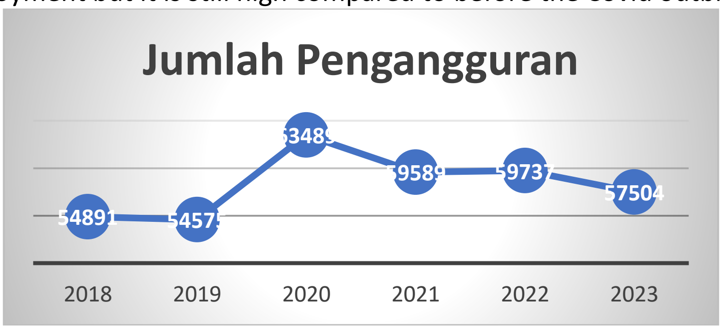
INTRODUCTION

Sustainable economic development can be determined by the success of an economy in allocating all resources effectively and efficiently. Labor is a very strategic resource in moving the economy, however labor can be a double-edged sword, labor can cause various very complex socio-economic problems. The inability of the workforce to participate in producing goods and services or being classified as unemployed can be a burden on an economy.

Data on the number of unemployed in Maluku Province in the last 5 years shows a fluctuating trend. The highest number of unemployed occurred when the Covid outbreak hit Maluku Province in 2020, resulting in a very sharp increase in unemployment. After the Covid outbreak, there has been a decrease in unemployment but it is still high compared to before the Covid outbreak.



Source: BPS, 2024

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Data on the Open Unemployment Rate (TPT) for Maluku Province in 2020 was also the highest, however different conditions appeared after the Covid outbreak where the percentage of unemployment experienced a steep decline compared to the two years before the Covid outbreak, where the TPT was at 7%. After the Covid pandemic, TPT experienced a decline for 3 consecutive years until it reached its lowest point, namely 6.31% in 2023.

Source: BPS, 2024

The success of the economy in reducing the open unemployment rate can also indicate the effectiveness of the fiscal and monetary policies implemented to overcome problems arising from the social restriction policies implemented by the government during the Covid outbreak. Social restrictions have resulted in the economy losing job opportunities.

Indonesia is divided into regions that have various characteristics, therefore government administration is carried out in a decentralized manner, so that fiscal policy is not only made by the central government but also given the power to regional governments to regulate it. In contrast to fiscal policy, monetary policy is determined by Bank Indonesia as the central bank and applies to all regions in Indonesia. Differences in regional characteristics will result in differences in the fiscal policies taken and differences in the impact of the two policies. A monetary policy factor that is no less important in influencing unemployment is the interest rate, even though Bank Indonesia as the central bank has the sole objective of always achieving and maintaining stability in the value of the rupiah.(Bank Indonesia, 2020). The interest rate instrument not only affects the money market but also has an impact on the labor market. Interest rates can stimulate investment in the form of taking credit for capital investment.

Previous research conducted in Maluku Province focused on the variables of wages, economic growth and inflation. Research related to fiscal and monetary policy on unemployment has been widely carried out, but the scope of the region is different and broad, some studies include research conducted by(Huda & Karsudjono, 2021)researching regional spending as an effort to overcome poverty and unemployment in the city of Banjarmasin.(Krisnandika et al., 2021)research provides several efforts that can be made to overcome the increasing number of unemployed (1) issuing monetary policy by reducing interest rates to reduce borrowing costs for the community, (2) issuing fiscal policy by cutting taxes and increasing state spending so that the Indonesian economy improves. Policy synergy is seen in research(Samsul et al., 2021)which stated the strengthening of the domestic market and economic competitiveness amidst the uncertainty caused by the Covid-19 outbreak, Bank Indonesia as the institution that implements monetary policy and the Ministry of Trade as the institution implementing fiscal policy are committed to strengthening synergy.(Atmojo, 2018)Analysis of the Effectiveness of Monetary Policy and Fiscal Policy on Indonesia's Gross Domestic Product.

There are limited studies related to the role of fiscal and monetary policy on unemployment in Maluku Province. Proving the effectiveness of fiscal and monetary policies on unemployment. Changes in local government spending and interest rates are expected to support increased production and job creation.

Therefore, this research intends to examine the impact of fiscal policy in terms of expenditure and the determination of monetary policy instruments, namely interest rates. The aim of this research is to determine the effectiveness of fiscal and monetary policies in overcoming the problem of unemployment in Maluku Province.

METHODS

This research is a quantitative type of research, using time series secondary data with a data range from 2011-2023. Data comes from the official website of the Indonesian Central Statistics Agency (BPS) and the Directorate General of Financial Balance, Ministry of Finance of the Republic of Indonesia (Djpk Kemenkue).

No	Variable	Operational Definition	Proxy
1	Fiscal Policy on the Expenditure Side	Expenditure side fiscal policy is the policy of regulating government spending.	Realization of Total Maluku Provincial Government Expenditures
2	Monetary policy	Monetary policy is a policy that regulates the money supply through setting Bank Indonesia interest rates.	Annual Interest Rate
3	Unemployment	Unemployment is an imbalance between the labor force and the available jobs.	Open Unemployment Rate

The estimation model is derived from Keyness theory which states that the government can reduce unemployment by increasing total expenditure and Phillips theory which states a negative relationship between the price level and the unemployment rate. These two theories underlie two main policies in the economy, namely fiscal policy and monetary policy in influencing unemployment, so the research model is written as follows:

$$TPTi = \beta 0 - \beta 1PPi + \beta 2SBi + e$$

The modification results produce the following estimation model:

$$TPTi = \beta 0 - \beta 1lnPPi + \beta 2SBi + e$$

To validate the estimation results, classical assumption testing will be carried out to test the suitability of statistical models such as data normality, heteroscedasticity, autocorrelation and multicollinearity to ensure that the resulting estimation results are reliable and statistically valid.

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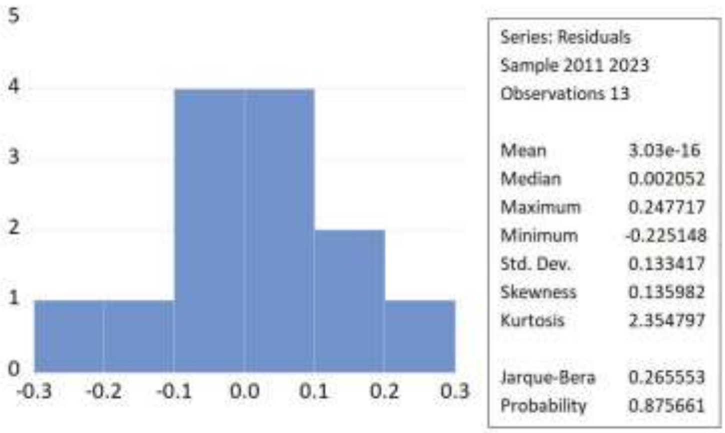
RESULTS AND DISCUSSION

Classic Assumption Test

The data normality test used the Jarque-Bera (JB) test, showing a value of 0.265553 with a probability of 0.875661 greater than α 5%, which proves that the data meets the normality assumption. It can be concluded that the variables in the research model are normally distributed.



The multicollinearity test using Variance Inflation Factors shows the VIF value for the fiscal and monetary policy variables < 10, which proves that the research model used meets the multicollinearity assumption or that there is no correlation between the independent variables in the research model.

	Coefficient	Uncentered	Centered
Variables	Variance	VIF	VIF
C	1.640804	998.6114	NA
LN_FISCAL	0.019290	705.0627	1.383190
LN_MONETARY	0.037763	67.77831	1.383190

Autocorrelation test using the Breusch-Godfrey Serial Correlation LM Test shows the value of Prob. Chi-Square(2) of 0.7412 is greater than α 5%, which proves that the data meets the autocorrelation assumption. It can be concluded that the variables in the research model have no correlation with the residuals in period t with the residuals from the previous period.

F-statistic	0.193185	Prob. F(2.8)	0.8281
Obs*R-squared	0.598925	Prob. Chi-Square(2)	0.7412

Heteroscedasticity test using Breusch-Pagan-Godfrey shows the value of Prob. Chi-Square(2) of 0.9583 is greater than α 5%, which proves that the data meets the assumption of homoscedasticity. It can be concluded that the research model does not experience non-heteroscedasticity problems.

F-statistic	0.032943	Prob. F(2,10)	0.9677
Obs*R-squared	0.085091	Prob. Chi-Square(2)	0.9583

Scaled explained SS	0.034107	Prob. Chi-Square(2)	0.9831

Regression Equations

Variables	Coefficient	t-Statistics	Prob. (t-Statistic)	F-statistic	Prob. (F-statistic)	R-squared	Adjusted R-squared
C	4.401986	3.436531	0.0064	5.563885	0.023754	0.526689	0.432027
LN_FISCAL	-0.330517	-2.379759	0.0386				
LN_MONETARY	0.142843	0.735066	0.4792				

Based on the estimation results, the form of the regression equation in this research can be written as follows:

$$TPT = 4{,}407986 - 0{,}330517\ PP + 0{,}142843\ SB + e$$

This research equation shows that when fiscal policy and monetary policy are constant, unemployment will increase by 440.79%. The Government Expenditure Coefficient (PP) shows that if monetary policy is constant then fiscal policy will be able to reduce unemployment by 33.05%. And the Interest Rate coefficient (SB) shows the opposite situation if fiscal policy is constant, then monetary policy can increase unemployment by 14.28%.

Partial Test

The test results show that the fiscal policy variable has a negative and significant effect on the unemployment variable in Maluku Province, as evidenced by the prob t-statistic value of 0.0386 which is smaller than α 5%. Different conditions occur in that the monetary policy variable has a positive but not significant effect on the unemployment variable in Maluku Province, as evidenced by the prob t-statistic value of 0.4792 which is greater than α 5%.

Simultaneous Test

The test results show that the fiscal policy and monetary policy variables together significantly influence unemployment, as evidenced by the prob f-statistic value of 0.023754 which is smaller than α 5%.

Model Feasibility

The estimation results show that the independent variables, namely fiscal policy and monetary policy, are able to explain the dependent variable unemployment, as evidenced by the Adjusted R-squared value of 43.20% and the rest is explained by other variables outside the research model.

Discussion

The Influence of Expenditure Side Fiscal Policy on Unemployment

Government spending and unemployment have a negative relationship, when government spending increases it will affect the decline in the open unemployment rate. This condition is caused because government spending can directly touch the labor market by creating demand for labor for projects financed by the government.

The results of this research prove the Keynesian model which states that fiscal policy is more effective than monetary policy in overcoming the problem of unemployment(Sukirno, 2007).
This research is the same in the relationship between variables and is significant as previous research by(Mahendra et al., 2022)The research results show that government spending has a significant negative effect on the unemployment variable in Indonesia.(Muslim, 2014)found that government spending has a negative and significant effect on the level of open unemployment in the Special Region of Yogyakarta.

The Effect of Monetary Policy on Unemployment
Interest rates have a positive relationship with unemployment. When interest rates increase it will be followed by an increase in open unemployment. However, the influence of interest rates does not significantly affect open unemployment, this is because interest rates cannot directly touch the labor market, interest rates require intermediary variables such as investment, inflation and wage levels, which are the determining variables for increasing production and expanding employment opportunities. An increase in interest rates is a response to monetary policy to control inflation, while an increase in unemployment is more influenced by inflation expectations. In the long term, expectations of an increase in inflation will make workers feel that their purchasing power has decreased, thereby reducing workers' desire to offer their labor. This condition will increase the unemployment rate. increases, apart from that there are many factors that influence changes in investment in the long term.

The results of this research prove the Keynesian Model which states that monetary policy is less effective because investment is determined by many factors so that changes in interest rates are inelastic(Sukirno, 2007). The interest rate requires an intermediate variable, the assumption of(Parkin, 2018)If the unemployment rate is below the natural unemployment rate, the labor shortage will increase pressure on wage levels, which will then contribute to an increase in the inflation rate, so that higher interest rates are needed, the opposite applies.

This research is different from previous studies, including by(Khairunnisa, 2023)This research shows that interest rates have a positive effect on the unemployment rate, but differ in the level of significance.(Juneldi & Sentosa, 2022)Interest rates have a significant positive effect on the unemployment rate only in the long term, while in the short term, the effect is insignificantly negative. This difference in significance indicates differences in the level of elasticity in the labor market towards changes in inflation expectations and changes in wages, investment and demographic factors in the research area and research time.

The Influence of Fiscal Policy on the Expenditure Side and Monetary Policy Together on Unemployment

The synergy of fiscal policy and monetary policy is very effective in influencing the unemployment rate in Maluku Province because these two policies are directed at achieving economic stability. Fiscal policy through the expenditure side stimulates the creation of new jobs through capital expenditure, stimulates production through purchasing goods and services and increases people's purchasing power through subsidy spending, employee spending, and social assistance spending. At the same time, it is hoped that monetary policy can balance fiscal policy so that government spending does not encourage inflation problems. Monetary policy with interest rate instruments must be able to control the money market to overcome inflation problems and maintain people's purchasing power, so that production continues to grow and BI interest rates must also stimulate financial institutions to collect savings and distribute them in the form of investment to create wider job opportunities so that reduce the problem of unemployment.

This research found the same results as previous studies including by(Samsul et al., 2021)amidst global economic uncertainty due to the COVID-19 pandemic, Bank Indonesia and the Ministry of Trade are committed to strengthening synergies to strengthen the domestic market and export competitiveness.(Meiyenti et al., 2023)there is a cluster that shows a special focus on understanding the impact of fiscal policy measures on key macroeconomic variables, such as GDP and inflation, as well as the interaction between fiscal and monetary policy in shaping economic outcomes.

CONCLUSION

Based on the research results and answering the objectives previously set, the following conclusions can be drawn: Fiscal policy to increase government spending in Maluku Province has a significant effect on reducing unemployment in Maluku Province as evidenced by the negative regression coefficient and prob. t statistic is smaller than α 5%. Monetary policy to increase the interest rate instrument was followed by an increase in the unemployment rate in Maluku Province, however monetary policy had no significant effect on the unemployment rate in Maluku Province as evidenced by the positive regression coefficient and prob. t statistic is greater than α 5%. Fiscal and Monetary policies together have a significant effect on unemployment in Maluku Province as evidenced by prob. f statistic is smaller than α 5%.

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