THE IMPACT OF INFLATION AND ACTUALIZED APBD EXPENDITURES ON MANADO CITY’S JOBLESS RATE, 2007-2021

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ABSTRACT

Purpose: This study aims to analyse the effect of inflation, the human development index, and the provincial minimum wage on unemployment in Indonesia and also analyse the effect of Gross Regional Domestic Product, provincial minimum wage, investment, inflation, and population on provincial youth unemployment in Java and Sulawesi in 2011–2019.

Method: The research objective is to determine the effect of inflation and the realization of APBD spending on unemployment in the city of Manado. The type of research used by the author is a quantitative descriptive research type, and the type of data used is secondary data obtained from BPS Manado City and North Sulawesi Province BPS. In this study using the Multiple Regression analysis model. The method used is panel data regression, with data from 33 provinces in Indonesia in 2015-2018.

Results and conclusion: The results of this study indicate that inflation has a negative but not significant effect and the realization of APBD spending has a negative and significant effect on the unemployment rate. The government has been good at using its APBD spending so that the increase in realized spending can reduce the unemployment rate in Manado City.

Research implications: The large number of open unemployment has broad social implications because those who do not work do not have income. Unemployment is a problem faced by almost all regions, Manado City, which is the capital of the province, is not immune from this unemployment problem.

Originality/value: Multicollinearity testing of the study aims to test whether the regression model found a correlation between the independent variables.

Keywords: Inflation, APBD Spending, Human Development, Unemployment, Multicollinearity.

O IMPACTO DA INFLAÇÃO E DESPESAS ATUALIZADAS DA APBD NA TAXA DE SEM EMPREGO DA CIDADE DE MANADO, 2007-2021

RESUMO

Objetivo: Este estudo visa analisar o efeito da inflação, o índice de desenvolvimento humano e o salário mínimo provincial sobre o desemprego na Indonésia e também analisar o efeito do Produto Interno Bruto Regional, salário mínimo provincial, investimento, inflação e população na juventude provincial desemprego em Java e Sulawesi em 2011-2019.

Método: O objetivo da pesquisa é determinar o efeito da inflação e a realização dos gastos da APBD sobre o desemprego na cidade de Manado. O tipo de pesquisa usado pelo autor é um tipo de pesquisa descritiva.

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quantitativa, e o tipo de dados usados são dados secundários obtidos da BPS Manado City e North Sulawesi Province BPS. Neste estudo, usando o modelo de análise de Regressão Múltipla. O método utilizado é a regressão de dados em painel, com dados de 33 províncias da Indonésia em 2015-2018.

**Resultados e conclusão:** Os resultados deste estudo indicam que a inflação tem um efeito negativo mas não significativo e a realização da despesa da APBD tem um efeito negativo e significativo na taxa de desemprego. O governo tem sido bom em usar seus gastos APBD para que o aumento nos gastos realizados possa reduzir a taxa de desemprego na cidade de Manado.

**Implicações da pesquisa:** O grande número de desempregados abertos tem amplas implicações sociais porque quem não trabalha não tem renda. O desemprego é um problema enfrentado por quase todas as regiões, a cidade de Manado, que é a capital da província, não está imune a esse problema de desemprego.

**Originalidade/valor:** O teste de multicolinearidade do estudo visa testar se o modelo de regressão encontrou correlação entre as variáveis independentes.

**Palavras-chave:** Inflação, Gastos da APBD, Desenvolvimento Humano, Desemprego, Multicolinearidade.

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1 INTRODUCTION

Indonesia is a country known for its natural resources, even in terms of human resources Indonesia ranks fourth as the country with the most population in the world. However, with various existing assets, Indonesia is still in a position as a developing country. If natural resources and human resources are managed properly, they can become a potential for development and economic growth. The problem that is often faced by developing countries including Indonesia is the problem of unemployment.

Unemployment is a condition where a person belonging to the workforce wants to get a job but has not been able to get one (Sukirno, 2010). Unemployment occurs due to high changes in the workforce that are not matched by absorption of labor and availability of employment. The labor force is the population of working age (15 years and over) who are employed, have a job but temporarily do not work, and are unemployed. If unemployment is not addressed immediately, it can cause social insecurity, and has the potential to result in poverty (Central Bureau of Statistics, 2007). Reducing the existing unemployment rate.

Unemployment is an important issue in economic development in the city of Manado and several economic indicators that can affect the level of unemployment include the rate of inflation that occurs. The higher the inflation rate, the higher the unemployment rate will be. Meanwhile, the higher the wage rate and the level of employment opportunities, the lower the unemployment rate will be.

Inflation is a process of increasing prevailing prices in an economy. While the inflation rate is a presentation of the increase in the prices of goods in a certain period of time (Sukirno, 2010). With the higher rate of inflation that occurs, it will result in a decreased rate of economic growth so that there will be an increase in the unemployment rate.

It can be seen in table 1.3 that the total APBD of the Manado City government that has been realized in the period 2011 to 2021 is quite large, even in 2015 the realized income touched 1.7 trillion, while in that year the unemployment rate was the highest, reaching the figure is 14.28%.

According to Sukirno (2002), the amount of government spending in a given period depends on many factors, including the amount of revenue, the objectives of short-term
economic activity and long-term economic development and political and security considerations. One of the classifications of government spending is public services, namely expenditures that increase community capital in the form of development of both physical and non-physical infrastructure. Distinguished on development expenditures financed with rupiah funds and project assistance. Development expenditure is expenditure designated to finance development programs so that the budget is always adjusted to the funds mobilized. Funds are then allocated to various sectors according to the priorities that have been planned. Based on this description,

Based on the characteristics of unemployment are: First, Open Unemployment This open unemployment is created due to the increase in job vacancies which is lower than the increase in the workforce. As a result, the number of workers in the economy is increasing, the number of workers who cannot get a job is the effect of this situation in a long enough period of time for those who do not do a job. So they are unemployed for real, and full time, therefore it is called open unemployment. The second is hidden unemployment. This unemployment mainly occurs in the agricultural and service sectors, every economic activity requires labor, and the amount of labor used depends on many factors. Among other factors to consider are the size of the company, the type of company activities, the machines used and the level of production achieved so as to encourage companies to increase production. More new workers are used and unemployment is reduced. However, at other times, aggregate demand will decrease substantially. For example, in countries that produce agricultural raw materials. The third is technological unemployment, this unemployment is caused by the replacement of human power by machines and chemicals. For example, weed poison, machines and robots have reduced the use of human labor. This is what is called technological unemployment. in agricultural raw material producing countries. The third is technological unemployment, this unemployment is caused by the replacement of human power by machines and chemicals. For example, weed poison, machines and robots have reduced the use of human labor. This is what is called technological unemployment. in agricultural raw material producing countries. The third is technological unemployment, this unemployment is caused by the replacement of human power by machines and chemicals. For example, weed poison, machines and robots have reduced the use of human labor. This is what is called technological unemployment.

1.1 Impact of Unemployment

To find out the impact of unemployment on the economy, we need to classify the effects of unemployment on two economic aspects, namely: First, the impact of unemployment on a country's economy. If the unemployment rate in a country is relatively high, this will hamper the achievement of the economic development goals that have been aspired to. Unemployment can cause people not to be able to maximize the level of prosperity they achieve. This happens because unemployment can cause the real (real) national income achieved by the community to be lower than the potential income (income that should be). Therefore, the prosperity achieved by the community will also be lower. Unemployment will cause national income derived from the tax sector to decrease. This happens because high unemployment will cause economic activity to decline so that people's income will also decrease. Thus, the taxes that must be paid by the people will decrease. If tax revenues decrease, funds for government economic activities will also decrease so that development activities will continue to decline. Unemployment does not promote economic growth. The existence of unemployment will cause people's purchasing power to decrease so that the demand for goods produced will decrease. This situation does not stimulate investors (entrepreneurs) to expand or establish new industries. Thus the level of investment decreases so that economic growth will not be accelerated. Second, the impact of unemployment on individuals who experience it and society. The following are
the negative impacts of unemployment on individuals who experience it and on society in general: (1) Unemployment can eliminate livelihoods; (2) Unemployment can eliminate skills; (3) Unemployment will cause socio-political instability (Muhdar, 2015). The result of inflation in general is the decline in people's purchasing power because in real terms the level of income also decreases. So suppose the amount of inflation in the year in question increases by 5% while income is fixed, then it means that in real terms income has decreased by 5% which consequently will relatively reduce purchasing power by 5% as well (Putong, 2010). Inflation is considered a monetary phenomenon, due to a decrease in the value of a monetary unit of account for a commodity. Inflation is a symptom indicating a continuous increase in the general price level. The price increase is not intended to occur momentarily. From this understanding, if there is a price increase that is only temporary, it cannot be said to be inflation. For example, the price of goods rises before Eid or other holidays. Because when Eid is over, the prices of goods return to their original conditions, such prices are not considered inflation (Rozalinda, 2014), due to a decline in the value of a monetary unit of account for a commodity. Inflation is a symptom indicating a continuous increase in the general price level. The price increase is not intended to occur momentarily. From this understanding, if there is a price increase that is only temporary, it cannot be said to be inflation. For example, the price of goods rises before Eid or other holidays. Because when Eid is over, the prices of goods return to their original conditions, such prices are not considered inflation (Rozalinda, 2014). So if there is a price increase that is only temporary, it cannot be said to be inflation. For example, the price of goods rises before Eid or other holidays. Because when Eid is over, the prices of goods return to their original conditions, such prices are not considered inflation (Rozalinda, 2014). So if there is a price increase that is only temporary, it cannot be said to be inflation. For example, the price of goods rises before Eid or other holidays. Because when Eid is over, the prices of goods return to their original conditions, such prices are not considered inflation (Rozalinda, 2014).

In economics, inflation can be divided into several types in certain groupings, and the classification that will be used will depend on the goals to be achieved. There are several types of inflation, namely: According to the degree, namely low inflation, medium inflation, high inflation and very high inflation (Iskandar, 2010) Low inflation, namely inflation of less than 10% per year. Inflation is needed in the economy because it will encourage producers to produce more goods and services. Medium inflation is inflation that is between 10 and 30% per year. This inflation is usually marked by rising prices quickly and relatively large. The inflation rate in this condition is usually called 2-digit inflation, for example 15%, 20% and 30%. Heavy Inflation is inflation that is between 30-100% per year. Very high inflation, namely inflation marked by a drastic increase in prices up to 4 digits (above 100%). In this condition, people no longer want to save money, because its value has dropped so sharply that it is better to exchange it for goods. According to the causes, they are Demand Pull Inflation, Cost Push Inflation and Bottle Neck Inflation (Iskandar, 2010). Demand Pull Inflation. This inflation occurs as a result of the influence of demand that is not matched by an increase. Demand Pull Inflation. This inflation occurs as a result of the influence of demand that is not matched by an increase. Demand Pull Inflation. This inflation occurs as a result of the influence of demand that is not matched by an increase.

The quantity theory is the oldest theory regarding inflation, but this theory is still very useful to explain the process of inflation in this modern era, especially in developing countries.
This quantity theory highlights the role of inflation from (Boediono, 1998): (1) Amount of money in circulation. Inflation can only occur if there is an increase in the volume of money in circulation, without an increase in the amount of money in circulation. An incident like this, for example, a crop failure, will only raise prices temporarily. If the amount of money is not added, inflation will stop by itself, whatever the initial causes of the increase in prices. (2) Society's psychology (expectations) regarding prices. The rate of inflation is determined by the rate of increase in the amount of money in circulation and by society's psychology (expectations) regarding future prices. There are 3 possible situations, the first situation is when people don't (or haven't) expected prices to rise in the coming months.

The second is where the public (based on experience in the previous months) begins to realize that there is inflation. And the third occurs in the more severe inflation stage, namely the hyperinflation stage, at this stage people have lost confidence in the value of the currency. This hyperinflation occurred in Indonesia during the period 1961 – 1966.

Phillips describes how the spread of the relationship between inflation and the unemployment rate is based on the assumption that inflation is a reflection of an increase in aggregate demand. With an increase in aggregate demand, according to demand theory, if demand increases, prices will rise. With high prices (inflation), to meet this demand, producers increase their production capacity by adding labor (assuming that labor is the only input that can increase output). As a result of an increase in demand for labor, with rising prices (inflation), unemployment decreases. Bizarria (2022).

The Phillips curve proves that price stability and high employment cannot occur simultaneously, which means that if you want to achieve high employment or a low unemployment rate, you must be willing to bear the burden of high inflation as a consequence. In other words, this curve shows that there is a trade-off (negative relationship) between inflation and the unemployment rate, namely the unemployment rate can always be lowered by encouraging an increase in the inflation rate and that the inflation rate can always be reduced by allowing an increase in the unemployment rate.

2 LITERATURE REVIEW

2.2 Relationship Realization of Budget Expenditure Against Unemployment

According to Sukirno (2002), the amount of government spending in a given period depends on many factors, including the amount of revenue, the objectives of short-term economic activity and development.
Long-term economic and political and security considerations. Government spending can be divided into two classifications, namely:

- Regional apparatus, namely expenditures for the maintenance or operation of the government's day-to-day operations including personnel expenditures, goods expenditures, various types of subsidies (regional subsidies and price subsidies), instalments and interest on government debt, as well as the number of other expenditures. The routine expenditure budget plays an important role in supporting the smooth running of the governance system mechanism as well as efforts to increase efficiency and productivity, which in turn will support the achievement of the goals and objectives of each stage of development. Savings and efficiency of routine spending need to be done to increase the amount of government savings needed to finance national development. These savings and efficiencies are pursued, among others, through sharpening the allocation of routine expenses.

- Public services, namely expenditures that increase community capital in the form of development of both physical and non-physical infrastructure. Distinguished on development expenditures financed with rupiah funds and project assistance. Development expenditure is expenditure aimed at financing development programs so that the budget is always adjusted to the funds mobilized. Funds are then allocated to various fields according to the priorities that have been planned. Based on this description, government spending has an effect on the unemployment rate.

Research conducted by Soeharjoto and Oktavia (2021) examined the Effects of Inflation, the Human Development Index, and the Provincial Minimum Wage on Unemployment in Indonesia. This study aims to analyse the effect of inflation, the human development index, and the provincial minimum wage on unemployment in Indonesia. The method used is panel data regression, with data from 33 provinces in Indonesia in 2015–2018. Unemployment is the dependent variable with the independent variables being inflation, the human development index, and the provincial minimum wage. The results of the model are in accordance with the fixed effect model, with the details that inflation and the human development index have a negative and significant effect on unemployment in Indonesia, while the provincial minimum wage is not significant for unemployment in Indonesia.

Research by Putra (2021) which analyses the Analysis of Factors Influencing Youth Unemployment. This study aims to analyse the effect of Gross Regional Domestic Product, provincial minimum wage, investment, inflation, and population on provincial youth unemployment in Java and Sulawesi in 2011–2019. The analytical method used is panel data regression with the Random Effect Model (REM) approach. The results of the study show that provincial minimum wages, inflation, and population have had a positive and significant effect on youth unemployment in Java and Sulawesi in 2011–2019. Meanwhile, Gross Regional Domestic Product and investment proved to have no significant effect on youth unemployment.

Research conducted by Adawiyah and Seftarita (2016) regarding the Analysis of the Effects of Inflation and Economic Growth on Open Unemployment Rates in Indonesia's Eastern Border. This study aims to determine the effect of inflation and economic growth on open unemployment in the eastern border areas of Indonesia, to be precise on the big islands. This research was conducted using secondary data for the period 2001-2013 sourced from the Central Bureau of Statistics (BPS) using panel log model data. The results of this study indicate that inflation has a positive but not significant effect on open unemployment. This is the same as research conducted by Muliani (2009) using Ordinary Least Square (OLS) estimates for 1986-2008 explaining that inflation has a positive but not significant effect.

study aims to estimate the effect of economic growth, inflation rate, labor force, human development index, and the provincial minimum wage on the unemployment rate in Indonesia in 2015-2020 using panel data regression analysis. The results showed that the selected estimated model was the Fixed Effects Model (FEM). The results of the influence validity test (t test) in cross section showed that the variables of the labor force and the provincial minimum wage had a positive effect on the unemployment rate, while the variables of economic growth, inflation rate, human development index and the provincial minimum wage had no significant effect on the unemployment rate.

M. Rizal (2021) concerning the Influence of Inflation and the Labor Force on the Unemployment Rate in Makassar City. This study aims to determine the effect of inflation and the labor force on the unemployment rate in Makassar City. The type of research used in this research is quantitative research. The data processed is secondary data namely Inflation, Labor Force and Unemployment in Makassar City in 2011-2019. The results that inflation has a positive but not significant effect on unemployment in Makassar City, this can be seen from the results of data processing where the regression coefficient value is 0.484 with a significant value of 0.767 which is greater than 0.05 (0.767 > 0.05) and the labor force has a negative but not significant effect on unemployment in Makassar City. This can be seen from the results of data processing where the regression coefficient value is -0.097 with a significant value of 0.373 of 0.05 (0.373 > 0.05).

Bintang and Prana (2020) concerning the Effects of Inflation on the Open Unemployment Rate in Medan City. The purpose of this study was to determine whether there is an effect of inflation on the open unemployment rate in Medan City. The data used is secondary data during the 2007-2017 period. Data obtained from BPS North Sumatra. Data analysis used the Simple Regression test, hypothesis testing used the coefficient of determination test (R2) and partial test (t test), while data processing used SPSS 25. The results showed that Bintang and Prana (2020) concerning the Effects of Inflation on the Open Unemployment Rate in Medan City. The purpose of this study was to determine whether there is an effect of inflation on the open unemployment rate in Medan City. The data used is secondary data during the 2007-2017 period. Data obtained from BPS North Sumatra. Data analysis used the Simple Regression test, hypothesis testing used the coefficient of determination test (R2) and partial test (t test), while data processing used SPSS 25. The results showed that Bintang and Prana (2020) concerning the Effects of Inflation on the Open Unemployment Rate in Medan City. The purpose of this study was to determine whether there is an effect of inflation on the open unemployment rate in Medan City. The data used is secondary data during the 2007-2017 period. Data obtained from BPS North Sumatra. Data analysis used the Simple Regression test, hypothesis testing used the coefficient of determination test (R2) and partial test (t test), while data processing used SPSS 25. The results showed that Bintang and Prana (2020) concerning the Effects of Inflation on the Open Unemployment Rate in Medan City. The purpose of this study was to determine whether there is an effect of inflation on the open unemployment rate in Medan City. The data used is secondary data during the 2007-2017 period. Data obtained from BPS North Sumatra. Data analysis used the Simple Regression test, hypothesis testing used the coefficient of determination test (R2) and partial test (t test), while data processing used SPSS 25. The results showed that Bintang and Prana (2020) concerning the Effects of Inflation on the Open Unemployment Rate in Medan City. The purpose of this study was to determine whether there is an effect of inflation on the open unemployment rate in Medan City. The data used is secondary data during the 2007-2017 period. Data obtained from BPS North Sumatra. Data analysis used the Simple Regression test, hypothesis testing used the coefficient of determination test (R2) and partial test (t test), while data processing used SPSS 25. The results showed that Bintang and Prana (2020) concerning the Effects of Inflation on the Open Unemployment Rate in Medan City. The purpose of this study was to determine whether there is an effect of inflation on the open unemployment rate in Medan City. The data used is secondary data during the 2007-2017 period. Data obtained from BPS North Sumatra. Data analysis used the Simple Regression test, hypothesis testing used the coefficient of determination test (R2) and partial test (t test), while data processing used SPSS 25. The results showed that Inflation has no effect on the open unemployment rate in Medan City. Trimurti (2014) on Determinants of Unemployment: Empirical Evidence from 7 Provinces in Indonesia. The purpose of this study is to investigate data on economic growth, inflation, minimum wages and unemployment for seven provinces in Indonesia between 2004 and 2012. Regression Analysis Method with SPSS 18 to examine the empirical relationship between economic growth, inflation, minimum wages and unemployment. The results showed that the variables of economic growth and unemployment had no significant effect on unemployment, inflation and unemployment had a positive and significant effect on unemployment, minimum wage and unemployment had no significant effect on unemployment. Islamiah and Samhuri (2021) about The Impact of Investment and Government Spending on the Unemployment Rate. This research was conducted to observe and analyse the dominant factors that influence the unemployment rate ratio in terms of the variable level of investment and government spending. The research method with quantitative data uses secondary data obtained from the Indonesian government’s macroeconomic data for 2003 – 2018, including government investment level data, government expenditure level data, and unemployment rate data. Testing the hypothesis in this study was...
carried out using the panel data regression analysis method, namely testing the relationship between the influence of one variable on another using the IBM SPSS 22 program. The results of the analysis show that the level of government spending has a significant effect on the unemployment rate ratio. High value will create new jobs, which will indirectly reduce the unemployment rate. The large number of open unemployment has broad social implications because those who do not work do not have income.

Wilandari, Dwi (2019) about the Nexus between Inflation and Unemployment: Evidence from Indonesia. This study aims to examine the relationship between inflation and the unemployment rate in Indonesia during the period 1987 to 2018. This study uses a quantitative method with the Vector Error Correction Model (VECM) to comprehensively understand the causal relationship between inflation and the unemployment rate. Data is collected from a variety of primary sources including the World Bank, the Central Bank of Indonesia, and the Central Bureau of Statistics (BPS).

Suharti, Naufal (2021) about the Inflation Effect on Unemployment in Indonesia: A Comparative Studies Between Sharia and Conventional Economic Perspectives. The purpose of this study is to identify the driving factors that cause inflation and unemployment. This research was conducted using descriptive analysis through linear regression analysis of Indonesian unemployment and inflation data from 2001 to 2019. This study found that inflation was not the main contributor to unemployment and only contributed 18.6% of unemployment, while the remaining 80.4% was caused by unemployment by other factors. This occurs because price increases are not due to aggregate demand, but due to natural and man-made factors.

Nepram, Damodar (2021) regarding The Effect of Government Expenditure on Unemployment in India: A State Level Analysis. The purpose of this topic is necessary because the available literature is mostly based on data from developed countries. This paper examines the existence of relationships in Indian states using panel data analysis. For a more comprehensive review, state spending is divided into development spending, non-development spending, and aggregate spending, while the types of unemployment being reviewed are the normal status and the current weekly status. Indeed, it has been observed that both development and non-development spending increase both types of unemployment even though the impact of unemployment is higher.

3 METHODOLOGY

The type of research used is descriptive quantitative, namely the research method is a scientific approach to economic decisions. This method approach starts from the data and then processed into valuable information for decision making. This method must also use a quantitative tool in the form of EViews 10 software to process the data. The quantitative approach basically emphasizes its analysis on numerical data (numbers) which are processed using statistical methods and carried out in differential research (in the context of testing hypotheses). The conclusion results in an error probability of null hypothesis rejection. With the quantitative method will be obtained the significance of group differences or the significance of the relationship between the variables studied. (Sugiyono, 2014). While the type of data used is Secondary Data, namely data obtained from a second party, in this case the Central Statistics Agency (BPS) of Manado City and the Central Statistics Agency (BPS) of North Sulawesi Province. For the purposes of this writing, the authors chose objects in North Sulawesi Province, especially Manado City as the research area. The research was carried out for 2 (two) months, from January to February 2023. The research location was in Manado City. The data used in this study is secondary data from the Publication of the Central Bureau of Statistics (BPS), institutions, institutions, or other sources that have something to do with the variables studied. For the purposes of this writing, the authors chose objects in North Sulawesi.
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3.1 Operational Definitions and Variable Measurements

To simplify and clarify the variables in this study, operational variables are used as follows:

1. The inflation rate (X1) is the average inflation rate in the city of Manado from year to year in percent. Data comes from the Central Bureau of Statistics (BPS) Manado City from 2007 – 2021.

2. APBD Expenditure Realization (X2) is APBD Expenditure Realization that has been realized from year to year. The data was taken from 2007-2021 which came from the Manado City BPS in units of billions of rupiah and converted into natural logarithms.

3. The Unemployment Rate (Y) is the unemployment rate in the city of Manado which is determined by the Manado city government and processed and presented by BPS from year to year. The data comes from the Central Bureau of Statistics (BPS) for the City of Manado from 2007 – 2021 in percent units.

3.2 Multiple Regression Analysis

This study used a quantitative analysis technique, namely multiple regression analysis. Data analysis was carried out by statistically testing the variables using software assistance. The results of this analysis are then expected to be used to determine how much influence the variables associated with the independent variables have. According to Gujarati (1999), regression analysis is concerned with the study. the dependence of one variable, the dependent variable on one or more other variables, explanatory variables, with the intention of estimating and/or predicting the mean or average (population) value of the dependent variable, in terms of known or fixed value.

According to Sugiyono (2014), multiple regression analysis is used by researchers, if the researcher intends to predict how the situation (rising and falling) of the dependent variable (criterion) is, if two or more independent variables as predictor factors are manipulated (up and down in value). According to Noor (2014), the regression analysis aims to determine the quantitative influence of changes in the value of X on changes in the value of Y. In other words, the value of variable X can estimate/predict the value of variable Y.

So multiple regression analysis will be carried out if the number of independent variables is at least 2. So, the regression model in this study is:

\[ Y_t = a + b_1X_{1t} + b_2X_{2t} + e_t \]

Description:

A. Constant Y = Unemployment Rate
1. X1 = Inflation Rate
2. X2 = Realization of APBD spending
3.3 Classic Assumption Test

A model is said to be good as a predictor if it has the best linear unbiased properties of an estimator. Besides that, a model is said to be good enough and can be used to predict if it has passed a series of classical assumption tests that underlie it. The classic assumption test in this study consists of:

3.3.1 Multicollinearity test

Multicollinearity is a condition where there is a perfect or near perfect linear relationship between the dependent variables in the regression model. A regression model is said to experience multicollinearity if there is a perfect linear function on several or an independent variable in the linear function (Widarjono, 2013). The results are difficult to obtain the influence between the independent and dependent variables. A good regression model should not have a correlation between the independent variables. The way to find out whether there are symptoms of multicollinearity is by looking at the value of the variance inflation factor (VIF) and tolerance, if VIF is less than 10 and tolerance is more than 0.1 then multicollinearity is declared not to occur.

To test whether there is multicollinearity can be done as follows:
- If the VIF value is > 10, then there is a multicollinearity problem.
- If the VIF value is < than 10, then there is no multicollinearity problem.

3.3.2 Heteroscedasticity test

Heteroscedasticity is a test that assesses whether there is an unequal variance of the residuals for all observations in the regression model. This test is one of the classic assumption tests performed on regression. If the heteroscedasticity assumption is not met, then the regression model is declared invalid as a forecasting tool. Heteroscedasticity test using White's method. White developed a method that does not require assumptions about the existence of normality in the disturbance variable (Widarjono, 2013). White method equation as follows:

\[ Y_t = \alpha_0 + \alpha_1 X_{1t} + \alpha_2 X_{2t} + \epsilon_t \]

Detecting heteroscedasticity with the white test method can seen in the following way:
- If the Obs*R-squared probability value is > α, then the model does not have a heteroscedasticity problem.
- If the Obs*R-squared probability value < α, then the model has a heteroscedasticity problem.

3.3.3 Autocorrelation test

Autocorrelation Test. Literally autocorrelation means that there is a correlation between members of one observation with other observations at different times. In relation to the assumptions of the OLS method, autocorrelation is the correlation between one disturbance variable and another interference variable (Rohmana, 2010). Ghozali (2007) states that this autocorrelation test aims to test whether in the linear regression model there is a correlation between confounding errors in the previous period \((t-1)\). If there is a correlation then there is an autocorrelation problem. Autocorrelation arises because successive observations over time are
related to one another. This problem arises because the residuals (confounding errors) are not independent from one observation to another. To confirm whether there is autocorrelation in this regression model, a series test is performed. To test it can use the Durbin-Watson test (DW). The first step, formulate the null hypothesis as follows.

- H0: There is no positive autocorrelation
- H0*: There is no negative autocorrelation

Basis for Decision Making Durbin-Watson test method (DW test) with the following conditions:
1. If the Durbin-Watson value is less than dL or greater than (4dL), then there is autocorrelation.
2. If the Durbin-Watson value lies between dU and (4-dU), then there is no autocorrelation.
3. If the Durbin-Watson value lies between dL and dU or between (4dU) and (4-dL), then it does not produce a definite conclusion.

3.4 Partial Influence (Test t)

Testing the independent variables on the dependent variable partially or individually is carried out to determine the effect of each independent variable (inflation and Realization of APBD Spending) on the Unemployment Rate. Testing this hypothesis by looking at the research results from testing the independent variables partially with the dependent variable. This analysis can be done by comparing the results of t count with t table and see the significant value. If the probability value of the t-statistic is smaller than the significance of α = 0.05 or α = 0.10, it means that the independent variable partially (individually) influences the dependent variable. Where if \( t_{\text{count}} > t_{\text{table}} \), then H0 is rejected and Ha is accepted. This means that partially the independent variables affect the dependent variable. Conversely, if \( t_{\text{count}} < t_{\text{table}} \),

a. The effect of inflation on the unemployment rate based on the results of the analysis, it can be seen that the inflation variable has a t-count of -0.302 with a t-table of 2.201 [df = nk (14-3), α = 5%]. These results indicate that tcount (0.302850) falls in the area to the left of the normal curve (falls in the area of rejection of H0) because the value of table to the left of the normal curve is -2.201. Thus, t-count < t-table and p> 0.05. This shows that H0 is accepted and H1 is rejected, meaning that the inflation variable has no partial effect on the unemployment rate. The effect of inflation on the unemployment rate in Manado City is negative, meaning that if inflation increases, the unemployment rate will decrease.

b. The effect of Expenditure Realization on the unemployment rate based on the results of the analysis, it can be seen that the inflation rate variable has a t-count of -3.320943 with a t-table of -2.201 [df = nk (14-2), α = 5%], so it can be concluded that t -count > t-table, and the results obtained are (3.320943 > 2.201), meaning that H0 is rejected and Ha is accepted, so that the variable Expenditures for APBD realization (X2) has a negative and significant effect on the unemployment rate in Manado City.

3.5 Simultaneous Influence (Test F)

This analysis can be done by comparing the results of F count F table and see the significance value. Where if \( F_{\text{count}} > F_{\text{table}} \), then H0 is rejected and Ha is accepted. This means that simultaneously the independent variables affect the dependent variable. Conversely, if \( F_{\text{count}} < F_{\text{table}} \), then H0 is accepted and Ha is rejected, this means that simultaneously the independent variable has no effect on the dependent variable. While for the F table the level of significance α = 5% can be calculated as follows:

\[
F_{\text{table}} = (k-1) : (nk)=(2-1):(14-2)=1:12= 0.083
\]
Where:

\[ f = \text{statistical value with degrees of freedom } k-1 \text{ and } nk \]
\[ k = \text{the number of variables studied, namely 2 variables} \]
\[ n = \text{the length of time studied, namely 14 years} \]

From the results of processing the data, it shows that F calculates the variable inflation and Realization of APBD Expenditure is 6.646196 and F table is 0.083 so that the conclusion is \( F \) count > F table, then \( H_0 \) is rejected and \( H_a \) is accepted. This shows that simultaneously Inflation and Budget Realization have a significant influence on the unemployment rate. The results of this analysis indicate that inflation and APBD Expenditure Realization together have an effect on the Unemployment Rate. This means that the increase or decrease in inflation and the Realization of APBD Spending affect the Unemployment Rate. Acceptance of this hypothesis indicates that in general inflation and Realization of APBD Spending have an important role in reducing the Unemployment Rate in the City of Manado.

### 3.6 Test of the Coefficient of Determination (R2)

The coefficient of determination (R Square or R2) is used to determine how much the independent variable can explain the dependent variable. The contribution or determination of the independent variable to the dependent variable in this study can be seen in the determinant test (R Square). Based on the calculation of the coefficient of determination R2, it is 0.525549. This shows that the effect of inflation and Realization of APBD Spending is 52% on unemployment in the city of Manado, and 48% is contributed by other variables.

### 3.7 Classic Assumption Test

The classical assumption test is carried out because in the regression model it is necessary to pay attention to deviations from the classical assumptions, because in essence if the classical assumptions are not fulfilled then the explanatory variables will be inefficient. In this study, several classical assumption tests were carried out on the regression model that had been processed using the EViews 10 program including:

#### 3.8 Multicollinearity Test

Multicollinearity testing of the study aims to test whether the regression model found a correlation between the independent variables. A good regression model should not have a correlation between the independent variables. To see whether or not there is a correlation between variables, covariance analysis is carried out. The variable is said to have no collinearity if the correlation value is less than 10.

#### 3.9 Heteroscedasticity Test

The heteroscedasticity test is used to determine whether there is a deviation from the classical assumptions. Heteroscedasticity, that is, the variance of the residuals for all observations in the regression model. Whether or not there is heteroscedasticity can be known from the Obs*R-square probability value which will later be compared with the level of significance. The prerequisite that must be met in the regression model is the absence of symptoms of heteroscedasticity. If the prob value is <0.05 then there are symptoms of heteroscedasticity in the research model, whereas if the prob value is > 0.05 then there are no symptoms of heteroscedasticity in the research model. From the results of the heteroscedasticity...
test using the white method, the prob value was 0.9667 > 0.05 so it can be concluded that there were no symptoms of heteroscedasticity in the research model.

4 DISCUSSION

Reduce the unemployment rate, the impact of this policy will increase aggregate demand even though it pushes up the inflation rate. The test results obtained are in line with research conducted by Lumatenggo (2019) concerning the effect of inflation, economic growth and the human development index on unemployment in Manado city which shows that inflation has a negative and insignificant effect on unemployment, which means that when inflation rises, the unemployment rate will decrease. Criticism of the Phillips curve theory began with Milton Friedman's response in 1976 who said that the basic theory of the Phillips curve only occurs in the short term, but not in the long term, because in the short-term sticky prices still apply, while in the long-term flexible pricing applies. In other words, the unemployment rate will somehow return to its natural level, so that the relationship that occurs between inflation and unemployment becomes positive. This response is also known as the Natural Rate Hypothesis (Samuelson, 2004). Based on the descriptive analysis, the general inflation in the city of Manado for the last fourteen years has been most affected by the increase in the need for basic commodities. This inflation encourages wage increases, even wages in Manado City are the 3rd highest in all of Indonesia, this hinders the absorption of labor so that the unemployment rate can be pulled up.

4.1 Effect of Budget Realization on Unemployment

Based on the regression results, the Expenditure Realization variable (X2) has a negative effect on unemployment in Manado City during the 2007-2021 period. The results obtained are in accordance with what we expect, that the spending or spending by the government is to boost the economy, in this case creating new jobs and reducing unemployment. This indicates that the Realization of Manado City APBD Expenditure has proven to encourage the creation of new jobs and reduce the number of unemployed through fiscal policies implemented by the government. This research is in accordance with previous research conducted by Kaharudin (2019) concerning the effect of government spending on economic growth, unemployment and poverty (a case study in Manado city in 2001-2017).

The Manado City Government uses a lot of its expenditure budget, namely personnel expenditures, goods and services expenditures, and other expenditures used to buy which mostly come from the economy in Manado City itself, this encourages economic actors in the city of Manado to further increase their productivity, so that unemployment can be reduced. Zampier (2022).

5 CONCLUSION

Based on the results of the analysis and discussion of the data, it can be concluded several things as follows: Inflation has a negative and insignificant effect on the unemployment rate in Manado City. This indicates that when the inflation rate rises, the unemployment rate decreases. Realization of APBD Expenditures has a negative and significant effect on the unemployment rate in Manado City. The government has been good at using its APBD spending so that the increase in realized spending can reduce the unemployment rate in Manado City. Inflation and Realization of APBD Expenditures have a negative effect on the level.
REFERENCES


Poyoh, A., Kapantow, GH, & Mandei, JR. Factors Affecting Unemployment Rate in North Sulawesi Province. AGRI- SOCIOECONOMICS, Vol. 13 No. 1A. 2017


