THE EFFECT OF PROVINCIAL MINIMUM WAGES, INFLATION AND TOTAL POPULATION ON ECONOMIC GROWTH IN WEST SUMATRA PROVINCE, 2010-2021

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Abstract

This study aims to determine the effect of the Provincial Minimum Wage, Inflation, and Population on Economic Growth in West Sumatra Province. The data used in this research is secondary data from 2010-2021. To reach the research object using multiple linear regression analysis method. The results of this study partially indicate that the provincial minimum wage variable has a positive and significant effect on economic growth in West Sumatra Province, the inflation variable has no effect and is not significant on economic growth and the population variable has a negative and significant effect on economic growth in West Sumatra Province. While simultaneously the variables of the provincial minimum wage, inflation, and population have a positive and significant effect on economic growth in West Sumatra Province. The coefficient of determination (R^2)in this study is 0.988861, which means that the effect of the provincial minimum wage, inflation and population on economic growth is 0.988861 or 98.88% while the remaining 1.12% is influenced by other variables outside this study.

Keywords: ***Provincial Minimum Wage, Inflation, Total Population and Economic Growth .***

1. INTRODUCTION

Indonesian as developing countries in carrying out development in a planned and gradual manner, without neglecting equity and stability efforts. National development seeks to achieve sustainable economic growth high . In the end, it will enable the realization of an increase in the standard of living and welfare of all people. Indonesia's economic growth will increase in 2021, the Central Bureau of Statistics (BPS) noted that the Indonesian economy cumulatively throughout 2021 managed to grow positively to reach 3.69 percent, or better than 2020 which experienced a contraction of 2.07 percent. Economic growth is a country's economic problem in the long run. Economic growth is a country's economic problem in the long run. Economic growth can be defined as the development of activities in the economy that cause goods and services produced in society to increase (Sukirno, 2012) . So that if economic growth is high, the goods produced will increase , this can also improve people's welfare .

The factor that must be considered in measuring economic growth is the Gross Regional Domestic Product (GDP). Gross Regional Domestic Product is the total added value generated by all business units in a certain area, or the total value of final goods and services produced by all economic units. Nominal GRDP (GRDP at current prices) describes the added value of goods and services calculated using prices in the current year, while real GRDP (GRDP at constant prices) shows the added value of these goods and services calculated using prices prevailing in a particular year as base year. The GRDP calculation conceptually uses 3 kinds of approaches, namely the production approach, the expenditure approach and the income approach. Economic growth in 2021 West Sumatra is still in 6th position out of 10 provinces in Sumatra with the lowest economic growth . Indonesia has set a target percentage of economic growth of 5% according to data from Bank Indonesia for 2021, saying that economic growth in West Sumatra Province has reached 3.29%, which is still below the national average .

Table 1
Data on Economic Growth in West Sumatra Province for 2010-2021

YEAR	ECONOMIC GROWTH (%)
2010	5.6
2011	6.34
2012	6.31
2013	6.08
2014	5.88
2015	5.53
2016	5.26
2017	5.29
2018	5.14
2019	5.05
2020	-1.6
2021	3.29

Source: Central Bureau of Statistics West Sumatra (2023)

Based on the table above, it can be seen that economic growth in West Sumatra Province has increased quite well in 2010-2013. However, in 2014-2020 it experienced a very significant decline , especially in 2020 the decline reached -1.6%, happen The decline that occurred in 2020 was due to the Covid - 19 pandemic which caused transportation and trade to stop. However , in 2021 economic growth in West Sumatra will increase to 3.29%.

The Minimum Wage is one of the important indicators for the sufficient life of the workforce, workers are very dependent on the wages they receive from companies to be able to make ends meet. Therefore, workers always expect higher wages to meet the needs of themselves and their families. For companies, wages are one of the components of production costs which are seen as able to reduce the level of profit generated. so that the company tries to reduce the wage to the minimum level. Therefore company profits can be increased (Nurtiyas, 2016) .

Table 1. 2
Provincial Minimum Wage Data in West Sumatra for 2010-2021

YEAR	UMP (RUPIAH)	ECONOMIC GROWTH (%)
2010	940,000.00	5.6
2011	1,055,000.00	6.34
2012	1,150,000.00	6.31
2013	1,350,000.00	6.08
2014	1,490,000.00	5.88
2015	1,615,000.00	5.53
2016	1,800,725.00	5.26
2017	1.949.284.81	5.29
2018	2,119,067.00	5.14
2019	2,289,228.00	5.05
2020	2,484,041.00	-1.6
2021	2,484,041.00	3.29

Source: Central Bureau of Statistics West Sumatra (2023)

Based on the table above, we can see that the determination of the Provision Minimum Wage in West Sumatra has increased every year in 2010-2021 , which increases from 940,000 in 2010 to 2,484,041 in 2021. However , in 2012–2020 a phenomenon occurred where when the Provincial Minimum Wage rose but economic growth decreased every year, this is clear different from economic theory , if the Provincial Minimum Wage increases, economic growth will also increase.

other factors that can affect economic growth in an area that is inflation, If inflation is high, it will affect economic growth in the area. According to Wibowo (2020) defines inflation only as a continuous and quite large increase in prices at the general price level. Thus, inflation is measured statistically in terms of the percentage increase in the price index as a percent rate per unit of time, usually a year or a month . There are two factors that cause high inflation rates , firstly high demand because the demand for goods and services increases causing the supply of goods and services to decrease , temporary substitutes or substitutes for these goods and services are limited or non-existent, so this imbalance causes the prices of goods and services to rise. The second factor is that the money supply increases, according to the classics with the amount of money circulating in a country but the amount of goods is fixed , the price will be expensive, if this happens continuously then there will be inflation.

Table 3
Inflation Data in West Sumatra Province for 2010-2021

YEAR	INFLATION(%)	ECONOMIC GROWTH (%)
2010	7.84	5.6
2011	5.37	6.34
2012	4.16	6.31
2013	10.87	6.08
2014	11.9	5.88
2015	0.85	5.53
2016	5.02	5.26
2017	2.11	5.29
2018	2.55	5.14
2019	1.72	5.05
2020	2.12	-1.6
2021	1.37	3.29

Source: Central Bureau of Statistics West Sumatra (2023)

Based on the table above, it can be seen that inflation in West Sumatra Province has fluctuated every year, but in 2014 inflation in West Sumatra increased to 11.9%. Inflation in West Sumatra Province from 2010 was 7.84% and in 2021 it was 1.37%. Inflation in 2015 experienced a drastic decline, reaching 0.85%. This is a new history in West Sumatra with the lowest inflation rate. The cause of inflation in 2015 was due to maintained food supply and improved coordination of local governments through regional inflation control teams in mitigating the risk of high inflation and also an economic slowdown which had an impact on reducing people's purchasing power.

Apart from minimum wages and inflation, there are other factors that can affect economic growth, namely population. With a large population, they should be able to produce a large number of products and be able to become consumers in large numbers so that economic activity continues and develops (Darma 2021) . Total population is the number of people who live in an area and settle down to inhabit an area at a certain time (Yenny & Anwar, 2020) .

Table 4
Population Data in West Sumatra Province for 2010-2021

YEAR	TOTAL POPULATION (PERSON)	ECONOMIC GROWTH (%)
2010	4,865,331	5.6
2011	4,933,112	6.34
2012	5,000,184	6.31
2013	5,066,476	6.08
2014	5,131,882	5.88
2015	5,196,289	5.53
2016	5,259,528	5.26
2017	5,321,489	5.29
2018	5,382,077	5.14
2019	5,441,197	5.05
2020	5,534,472	-1.6
2021	5,580,232	3.29

Source: Central Bureau of Statistics West Sumatra (2023)

Based on the table above, it can be seen that the population in West Sumatra Province has increased every year , from 2010-2021. The highest population will occur in 2021 reaching 5,580,232 million people and the lowest population will occur in 2010. An increase in population if accompanied by good human resources will be able to increase economic growth. This population will increase every time according to the number of births in an area. With an increase in population, if it is not utilized properly it will become a source of problems and have an impact on economic growth in a region.

2. IMPLEMENTATION METHOD

The object of this study is Economic Growth as the dependent variable, while the Provincial Minimum Wage, Inflation, Population are the independent variables. The location of this research was conducted in West Sumatra Province with a time period of 2010-2021. The type of data used in this study is quantitative data in the form of secondary data, namely data that is measured numerically or data in the form of numbers processed by statistical methods. The secondary data used is multiple regression analysis, namely Provincial Minimum Wage data, Inflation, Population in West Sumatra Province from 2010 to 2021. The data source used in this research is secondary data in the form of time series data, namely *data* that has been processed information. The data used in this study were obtained from statistical publication data, the Central Bureau of Statistics (BPS) of West Sumatra Province. Viewed from data sources, written sources, seen from scientific books and magazines, archival sources, personal documents and official documents.

The data used in this study is using secondary data in the form of *time series data* over a period of 12 years from 2010-2021. To obtain data on Provincial Minimum Wage, Inflation, Population, this study uses data collection techniques that can be obtained from annual reports published at the Bps website address. c o.id as well as by using literature and literature study documentation by studying theses and journals to obtain information related to the problem under study.

This data research uses quantitative analysis methods using multiple linear regression models to find out how the Provincial Minimum Wage, Inflation and Population affect Economic Growth in West Sumatra Province. Testing the classical assumptions in this study uses the *Eviews*

10 program. The model used in testing this hypothesis is the Multiple Linear Regression model to examine the effect of the Provincial Minimum Wage, Inflation and Population on Economic Growth in West Sumatra Province. In this study the multiple linear regression model is formulated as follows:

$$\mathbf{PE\ \alpha + \beta_1\ LogUMP + \beta_2 logINF + \beta_3 logJPLogs = + e}$$

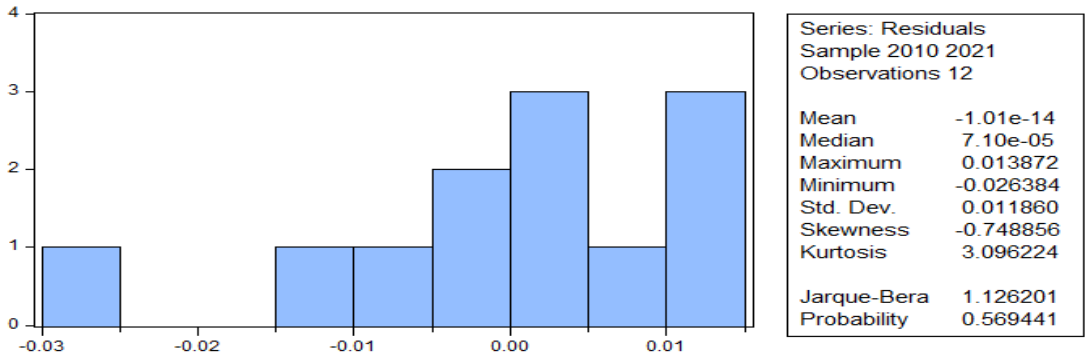
Information:

PE = Economic Growth
α = Constant
UMP = Provincial Minimum Wage
INF = Inflation
JP = Total Population
$b_1 - b_3$ = Regression Coefficient
e = Standard *Error*

3. RESULTS AND DISCUSSION

3.1 Normality Test

The normality test is used to determine whether the independent and dependent variables are normally distributed or not. In this study the normality test used the Histogram table - Normality Test. This study has normally distributed residual values if the Jarque-Bera probability value is > 0.05.



Source: Research Results (Eviews 10, 2023)

Figure 1 Normality Test

Based on Figure 1, the normality test results above show that the Jarque-Bera prob value = 1.126201 > 0.05. This means that based on the normality test the residual values are normally distributed and the regression analysis is feasible to use.

3.2 Classical Assumption Test

3.2.1 Multicollinearity Test

The multicollinearity test is used to see whether there is a relationship or not for each independent variable. A good multiple regression model is that there is no relationship between the independent variables.

Table 5
Multicollinearity Test

Variance Inflation Factors
Date: 06/11/23 Time: 21:30
Sample: 2010 2021
Included observations: 12

Variables	coefficient Variances	Uncentered VIF	Centered VIF
C	0.144170	6075507	NA
LOGX1	0.000390	5876895	1.693486
LOGX2	6.21E-05	5.658513	1.693486

Source: Research Results (Eviews 10, 2023)

Based on the table above it can be seen that the VIF value for the independent variable is not more than 10, meaning that in this study it is free from multicollinearity tests.

3.2.2 Heteroscedasticity Test

This heteroscedasticity test is used to see the occurrence of residuals and the predicted value has a correlation or relationship pattern. In this test, what must be fulfilled is that there is no heteroscedasticity. This research uses *White heteroskedasticity* contained in the eviews program.

Table 6
Heteroscedasticity Test

Heteroskedasticity Test: White

F-statistics	1.765249Prob. F(7,4)	0.3045
Obs*R-squared	9.065430Prob. Chi-Square(7)	0.2480
Scaled explained SS	4.222927Prob. Chi-Square(7)	0.7538

Source: Research Results (Eviews 10, 2023)

From Table 6 it can be seen that the Obs*R-squared value of the white estimation test is 9.065430 with a 5% degree of confidence, so that the above model escapes heteroscedasticity. This can also be seen from the prob value. Chi-square is 0.2480 which means > 0.05.

3.2.3 Autocorrelation Test

The autocorrelation test using the Lagrange Multiplier approach (LM-Test) aims to determine whether this model has a correlation between the perturbing errors in the previous t-1 period. In this study, using 5% was significant, it was concluded that the independent variables had a significant effect on the dependent variable. If the prob Chi-square value < 0.05 then there is autocorrelation, conversely if the prob Chi-square value is > 0.05 then there is no autocorrelation.

Table 7
Autocorrelation Test

Breusch-Godfrey Serial Correlation LM Test:

F-statistics	0.581575	Prob. F(2,6)	0.5877
Obs*R-squared	1.948555	Prob. Chi-Square(2)	0.3775

Source: Research Results (Eviews 10, 2023)

From the table above it can be seen that the Chi-square prob value is greater than 0.05%, which is equal to 0.3775. This means that in this study there was no autocorrelation .

3.2.4 Results of Multiple Linear Regression Processing

The data analysis method used to look at the problems and hypotheses in this study is multiple linear regression analysis. To find out the results of the research seen from the output of multiple linear regression using the help of E-views 10 as a data analysis tool. Following are the results of the regression performed.

Table 8
Results of Multiple Linear Regression Processing

Dependent Variable: LOGY
Method: Least Squares
Date: 06/11/23 Time: 20:38
Sample: 2010 2021
Included observations: 12

Variables	coefficient	std. Error	t-Statistics	Prob.
C	29.17336	11.42954	2.552454	0.0340
LOGX1	0.641186	0.114428	5.603425	0.0005
LOGX2	-0.009996	0.006819	-1.465808	0.1809
LOGX3	-2.009600	0.876985	-2.291487	0.0511

R-squared	0.991899	Mean dependent var	10.20586
Adjusted R-squared	0.988861	SD dependent var	0.131768
SE of regression	0.013907	Akaike info criterion	-5.451643
Sum squared residue	0.001547	Schwarz criterion	-5.290007
Likelihood logs	36.70986	Hannan-Quinn criter.	-5.511486
F-statistics	326.5069	Durbin-Watson stat	2.545331
Prob(F-statistic)	0.000000		

Source: Research Results (Eviews 10, 2023)

Based on the table above, the results of multiple linear regression analysis can be seen as follows:

LogY=29.17336 + 0.641186LogX1 - 0.009996LogX2 - 2.009600LogX3 + e

1. The model above shows that the constant value is 29.17336 which means that if the Provincial Minimum Wage, Inflation and Population are constant then the dependent variable Economic Growth has a value of 29.17336%.
2. The provincial minimum wage variable coefficient has a value of 0.641186. This shows a positive relationship. This means that if the minimum wage increases by 1%, then the value of

economic growth increases by 0.641186%.

3. The variable coefficient of inflation has a value of -0.009996. This shows that the relationship is negative. This means that if inflation increases by 1%, then the value of economic growth decreases by 0.009996%.
4. The variable coefficient of Total Population has a value of -2.009600. This shows a negative relationship. This means that if the total population increases by 1%, then the value of economic growth decreases by 2.009600%.

3.2.5 Partial Test (t test)

The t test is a test conducted to determine the effect of the independent variable on the dependent variable. This test uses the criteria that is if t-count > t-table with a significant level of 5%, it can be concluded that the independent variable can have a significant effect on the dependent variable. If t-test < t-table with a significant level of 5%, it can be concluded that the independent variable has no significant effect on the dependent variable. Following are the partial test results (t test) in this study.

Table 9 _
T-Statistics Test Results

Free Variables	T-statistics	T-table	Prob	Information
X1	5.603425	1.83311	0.0005	Significant
X2	-1.465808		0.1809	Not significant
X3	-2.291487		0.0511	negatively significant

Source: Research Results (Eviews 10, 2023)

Based on the table above, we can see that the t-count value of variable X1 has a value of 5.603425 with a significant level of 0.0005, then t-count (5.603425) > t-table (1.83311) and a significant value (0.0005) <0.05, this shows the minimum wage variable province has a positive and significant effect on economic growth.

Variable X2 in the table above has t-count -1.465808 with a significant level of 0.1809, so t-count (-1.465808) > t-table (1.83311) and a significant value (0.1809) <0.05. This means that the inflation variable has no effect and is not significant on economic growth.

Furthermore, in the table above it can be seen that the variable X3 has a t-count value of -2.291487 with a significant level of 0.0511, so t-count (-2.291487) > t-table (1.83311) and a significant value (0.0511) <0.05. So it means that the population variable has a negative and significant effect on economic growth.

3.2.6 Simultaneous Testing (Test F)

The f test was conducted to find out whether the independent variables used in this model have a simultaneous effect on the dependent variable by looking at the statistical values. If F-count > F-table then simultaneously the independent variables affect the dependent variable. The following are the results of simultaneous testing (f test) in this study.

Table 10
F-Statistics Test Results

F-statistics	F-table	Prob	Information
326.5069	3.86	0.000000	Significant

Source: Research Results (Eviews 10, 2023)

From the results of the simultaneous test above, it can be seen that the value of f-count > f-table (326.5069 > 3.96) with a prob value of (0.000000 <0.005) it can be concluded that jointly the variables provincial minimum wage, inflation, and population have a significant effect significant and positive to economic growth in West Sumatra Province.

3.2.7 Testing the Correlation Coefficient (R)

This correlation coefficient is used to determine how strong or weak the relationship between the independent variable and the dependent variable is. From this research test, the R-squared value is R = 0.991899, so R $\sqrt{0.991899}$= 0.995941, so the relationship between the independent variables and the dependent variable is very strong because the R-squared value is almost close to +1.

3.2.8 Testing the Coefficient of Determination (R^2)

Testing the coefficient of determination (R^2) is carried out to measure how far or how much the ability of the independent variable explains the dependent variable. This can be seen from the results of the Adjusted R-squared value. Based on table 4.4 above, where the Adjusted R-squared value is 0.988861, this shows that the ability of the independent variables to explain the dependent variable in this study is 98.88%, while 1.12% is influenced by variables outside the study.

Discussion

The Effect of Provincial Minimum Wage on Economic Growth in West Sumatra Province

From the results of partial testing on the provincial minimum wage variable on economic growth in this study it has a positive and significant effect, meaning that by increasing the provincial minimum wage, economic growth will increase in West Sumatra Province.

The results of this study are in line with research conducted by Lubis & Murtala (2021) which results that the Provincial Minimum Wage variable has a positive and significant effect on the level of economic growth in Aceh Province . This is because if the UMP increases, people's income and expenditure will increase thereby affecting people's purchasing power which rises so that economic growth increases and vice versa.

Influence of Inflation on Economic Growth in West Sumatra Province

Based on the results of partial testing on the inflation variable on economic growth in this study, the results have no effect and are not significant in West Sumatra Province. This is because inflation in West Sumatra Province is still classified as a moderate inflation rate, where this moderate inflation rate has not endangered the economy in West Sumatra and can still be controlled.

The results of this study are in line with research conducted by Kalsum (2017) which states that inflation does not have a significant effect on economic growth in North Sumatra because according to this study when inflation increases it will have an impact on economic growth which also increases.

The Effect of Population on Economic Growth in West Sumatra Province

Based on the partial test results on the population variable on economic growth in this study, it has a negative and significant effect on economic growth in West Sumatra Province. Judging from the data, the population continues to increase from 2010-2021, while economic growth has decreased from 2011-2021. This is because the increasing population is not accompanied or not matched by good quality human resources and does not take advantage of government programs to develop micro, small and medium enterprises (MSMEs), so that the increase in population in West Sumatra Province has an indirect impact on growth. economy in West Sumatra.

This is in line with research conducted by Sari & Fisabilillah (2021) which states that population size has a negative and significant effect on economic growth in Banyuwangi Regency.

So that if there is an increase in population it will affect the decline or slowdown of economic growth.

4. CONCLUSION

a. Conclusion

Based on the results of the discussion of this study, researchers can draw the following conclusions:

1. Partially the provincial minimum wage variable has a positive and significant influence on economic growth in West Sumatra Province with a test result of 0.641186, so this is in accordance with the hypothesis.
2. Partially the inflation variable has no influence and is not significant on economic growth in West Sumatra Province with a test result of -0.009996, so this is in accordance with the hypothesis.
3. Partially the population variable has a negative and significant effect on economic growth in West Sumatra Province with a test result of -2.009600, so this is not in accordance with the hypothesis.
4. Simultaneously (together) the variables of minimum wages, inflation, and population have a positive and significant effect on economic growth in West Sumatra Province with a test result of 326.5069, so this is in accordance with the hypothesis.

b. Suggestion

Based on the conclusions that have been made above, the researcher provides the following suggestions:

1. It is hoped that the West Sumatra provincial government will pay more attention to the provincial minimum wage in order to prosper the community so that economic growth will also increase.
2. The government of West Sumatra should encourage entrepreneurs to increase their production, pay attention to prices and at the same time set a maximum price.
3. The West Sumatra government should pay more attention to the population which continues to increase every year, where the population must be equipped with good quality human resources so that economic growth increases in West Sumatra.
4. It is hoped that academics will understand the results of this research as knowledge to overcome problems in economic growth in West Sumatra.
5. It is expected that other researchers will develop this research by adding other variables, for example such as Regional Original Income (PAD), because increasing PAD will affect economic growth.

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