http://ejournal.seaninstitute.or.id/index.php/Ekonomi
**Jurnal Ekonomi, Volume 12 No 02 2023**
ISSN: 2301-6280 (print) ISSN: 2721-9879 (online)

# THE INFLUENCE OF INFLATION AND POPULATION GROWTH ON WEST SULAWESI'S ECONOMIC GROWTH IN THE 2013-2018 PERIOD

**Awal Nopriyanto Bahasoan [1], Fausiah [2], Aminah [3], Samsuardi Said [4]**
[1.4] Faculty of Economics, University of West Sulawesi
[2.3] STIM-LPI Makassar

**ARTICLEINFO**

*Keywords*:

Economic Growth
Fixed Effects Model
Inflation
Population Growth

**ABSTRACT**

Sustainable economic growth is the main goal for most countries in the world, including Indonesia. High economic growth can improve people's welfare, create new jobs, increase a country's competitiveness in the global market, and strengthen social and economic stability. This study aims to analyze the effect of inflation and population growth on economic growth in West Sulawesi in the 2013-2018 period . This study uses the Fixed Effect Model method with panel data. The data used in this study comes from the West Sulawesi Central Bureau of Statistics. The results of his research show that inflation and population growth have had a positive and significant effect on economic growth in West Sulawesi during the observed period, but it is necessary to control inflation and population growth appropriately in order to support sustainable economic growth.

**E-mail:**
awalnopriyanto@unsulbar.ac.id



## 1. INTRODUCTION

Economic development is essentially a series of policy initiatives aimed at improving people's living standards, expanding employment opportunities and directing an equitable distribution of income. Population growth is a dynamic balancing process in terms of population components that can increase and decrease the population. According to Sjafrizal attention to regional economic growth has increased in the era of regional autonomy, this is quite logical because in the era of autonomy each region is competing to increase regional economic growth in order to increase the prosperity of its people. The factors of economic growth in each region need to be known in detail along with their characteristics and it is necessary to know how much influence each of these factors has in determining economic growth, so that this can be used as one of the inputs for regional governments in formulating policies and planning. regional development [1]. Sustainable economic growth is the main goal for most countries in the world, including Indonesia. High economic growth can increase people's welfare, create new jobs, increase a country's competitiveness in the global market, and strengthen social and political stability. However, high economic growth can also trigger high inflation, which can have a negative impact on the economy. In the context of West Sulawesi, efforts to spur sustainable economic growth need to be carried out by taking into account the factors that affect economic growth, one of which is inflation and population growth. Therefore, this study aims to analyze the effect of inflation and population growth on economic growth in West Sulawesi in the 2013-2018 period. The effect of inflation and population growth on economic growth is a topic that has been extensively researched in the economic field. Several previous studies have shown that inflation and population growth have a significant effect on economic growth. However, the results of these studies are not always consistent, especially in regional or local contexts. In this case, this research is expected to contribute to the economic literature regarding the effects of inflation and population growth on economic growth in West Sulawesi. In addition, the results of this study are also expected to provide recommendations for appropriate economic policies to spur sustainable economic growth in West Sulawesi

http://ejournal.seaninstitute.or.id/index.php/Ekonomi
**Jurnal Ekonomi, Volume 12 No 02 2023**
ISSN: 2301-6280 (print) ISSN: 2721-9879 (online)

## 2. METHOD

This study uses the Fixed Effect Model method with panel data. The data used in this study comes from the Central Bureau of Statistics of West Sulawesi and consists of inflation, population growth and economic growth in West Sulawesi for the 2013-2018 period. Panel data is used to overcome heteroscedasticity and autocorrelation problems that occur in cross-section and time series data.

The Fixed Effect Model (FEM) is a panel data regression method that allows for estimating the parameters and the effect of the independent variables on the dependent variable in each time unit. According to Baltagi (2013), FEM has the advantage of being able to eliminate fixed effects or constant factors for each individual in panel data. some opinions of experts regarding the advantages of using the Fixed Effect Model (FEM) in panel data analysis:

1. FEM has the advantage of being able to eliminate fixed effects or constant factors for each individual in panel data. Thus, parameter estimation becomes more accurate and efficient [11]
2. Panel data has the advantage of being able to estimate more parameters than cross-sectional or time series data alone. In addition, panel data can also reduce estimation bias and efficiency [12].
3. FEM is one of the commonly used panel data regression methods and can be performed using various panel data analysis software, such as EViews. This makes it easier for users to perform panel data analysis using FEM [13]

For data analysis, this research uses EViews software. EViews is one of the software that is commonly used in panel data analysis and has the ability to make estimates with various panel data models [13]

The function variable model used to express the relationship between the independent variables and the dependent variables includes:

$Pertumbuhan\ ekonomi_{it} = f(Inflasi_{it}, Pertumbuhan\ penduduk_{\ it})$..............(1)

And the econometric model becomes,

$Y_{it} = \beta_0 + \beta_1 LogX1_{it} + \beta_2 LogX2_{it} + \varepsilon_{it}$..................................................(2)

Where:

$Y_{it}$ = economic growth
X1 = inflation
X2 = population growth
I = Regency/City
t = Year
ε = Faktor gangguan(*error term*)

## 3. RELUST AND DISCUSSION

### 3.1 Panel data analysis technique

**Table 1. *fixed effect* method**

Dependent Variable: Y?
Method: Pooled Least Squares
Date: 12/07/19 Time: 14:44
Samples: 2013 2018
Included observations: 6
Cross-sections included: 5
Total pool (balanced) observations: 30

| Variables | coefficient | std. Error | t-Statistics | Prob. |
|---|---|---|---|---|
| C | 1984.509 | 4.074912 | 487.0066 | 0.0000 |
| X1? | 0.309128 | 0.080953 | 3.818635 | 0.0009 |
| X2? | 3.896037 | 0.528692 | 7.369198 | 0.0000 |
| Fixed Effects (Cross) | | | | |
| _MAJENE—C | -3.674835 | | | |
| _POLMAN—C | -0.872404 | | | |
| _MAMASA—C | 0.857976 | | | |
| _MAMUJU—C | 1.242885 | | | |

http://ejournal.seaninstitute.or.id/index.php/Ekonomi
**Jurnal Ekonomi, Volume 12 No 02 2023**
ISSN: 2301-6280 (print) ISSN: 2721-9879 (online)
JURNAL EKONOMI

| | | | |
|---|---|---|---|
| _PASANGKAYU--C | 2.446378 | | |
| | Effects Specification | | |
| Cross-section fixed (dummy variables) | | | |
| R-squared | 0.732853 | Mean dependent var | 2016,000 |
| Adjusted R-squared | 0.663163 | SD dependent var | 1.438390 |
| SE of regression | 0.834808 | Akaike info criterion | 2.677733 |
| Sum squared residue | 16.02880 | Schwarz criterion | 3.004679 |
| Likelihood logs | -33.16600 | Hannan-Quinn criter. | 2.782326 |
| F-statistics | 10.51584 | Durbin-Watson stat | 1.291646 |
| Prob(F-statistic) | 0.000012 | | |

Source : Output EViews 9

From calculations using the *fixed effect approach* in the table. 1 shows that population growth has had a positive effect on economic growth in the province of West Sulawesi during 2013-2018, as well as inflation has had a positive effect on economic growth in the province of West Sulawesi. The coefficient of determination shown by the R- *square* of 0.732 indicates that the variation in the independent variables in the model is able to explain the variation in the poverty rate of 73.2%, the remaining 26.8% is explained by other variables outside the model.

### 3.2 Relationship of Inflation and Economic Growth

The results of data processing show that inflation has a positive and significant influence on economic growth. This shows that inflation can stimulate economic activity from the production side in West Sulawesi Province. This finding is almost the same as several previous studies, including:

a. "Inflation and Economic Growth in Nigeria: A Granger Causality Analysis. This study found that there is a positive relationship between inflation and economic growth in Nigeria. Researchers explain that an increase in inflation can stimulate investment activity and reduce unemployment, which in turn can increase economic growth [14 ]
b. "Inflation and Economic Growth in Sub-Saharan Africa: Some Empirical Evidence" This study found that inflation has a positive effect on economic growth in most Sub-Saharan African countries. Researchers explain that inflation can trigger demand and accelerate economic growth through its effect on investment and exports [15]
c. "Inflation and Economic Growth Nexus: A Multivariate ARDL Approach for Pakistan". Journal of Asian Economics, 36, 53-70. This study found that inflation has a positive effect on economic growth in Pakistan. Researchers explain that an increase in inflation can stimulate investment activity and trigger economic growth, but the effect can be limited by an increase in interest rates that may be needed to control inflation [16]
d. "The Impact of Inflation on Economic Growth: Case of Algeria 1980-2013". This study finds that inflation has a positive effect on economic growth in Algeria. Researchers explain that inflation can affect economic growth by encouraging investment, exports, and accelerating the growth of the industrial and service sectors [17]
e. "Inflation and Economic Growth in Tanzania: An Empirical Analysis". This study found that inflation has a positive effect on economic growth in Tanzania. Researchers explain that inflation can stimulate investment and consumption activities, which in turn can increase economic growth [18]

All of these studies show that inflation has a positive effect on economic growth, especially in the short term. Moderate inflation can spur economic growth by encouraging investment and consumption. However, if inflation is too high, this can have a negative impact on the economy, such as decreasing people's purchasing power and decreasing investment. Therefore, it is necessary to carry out proper inflation control in order to support sustainable economic growth

### 3.3 The Relationship between Population Growth and Economic Growth in West Sulawesi Province

The results of data processing show that population growth has a positive and significant effect on economic growth in West Sulawesi Province. This indicates that the sufficient population is able to move the wheels of the economy in a better direction. The results of this study are in line with several other previous studies on the same topic, including:

a. "Population Growth and Economic Development: Evidence from India". This study shows that population growth has a positive effect on economic growth in India, although this effect is stronger in cities than in rural areas. Researchers explain that population growth can encourage consumption, investment, and labor requirements, which in turn can increase economic growth [18]
b. "Fiscal policy and growth: evidence from OECD countries". This research shows that population growth has a positive effect on economic growth through a balanced fiscal policy, in which greater population growth can increase the need for infrastructure and public services, thus encouraging economic growth [19]
c. "Growth, public investment and corruption with failing institutions". This research shows that population growth has a positive effect on economic growth through increased public investment, although corruption and institutional failure can hinder this positive effect [20].
d. "Disease and Development: The Effect of Life Expectancy on Economic Growth". This study shows that population growth has a positive effect on economic growth through the effect of increasing life expectancy and reducing mortality. Researchers explain that an increase in life expectancy can lead to an increase in productivity and a decrease in mortality can lead to improvements in health [21]
e. "Population, Technology, and Growth: From Malthusian Stagnation to the Demographic Transition and Beyond". This study shows that population growth has a positive effect on economic growth in the early stages of development, when the population is still relatively low and natural resources are still abundant. Researchers explain that at this stage, population growth can encourage investment and innovation, which in turn can increase productivity and economic growth [22]

The research above shows that population growth has a positive effect on economic growth through a balanced fiscal policy. increased public investment, although corruption and institutional failures can hinder this positive effect. Population growth shows that an increase in life expectancy and a decrease in mortality caused by population growth can encourage increased productivity and health, which in turn increases economic growth. Population growth shows that in the early stages of development, population growth can encourage investment and innovation which in turn increases productivity and economic growth.

## 4. CONLUSION

Based on the results of the discussion and statistical testing of the data, the following conclusions are obtained: The results showed that the inflation variable had a positive and significant effect on economic growth in West Sulawesi in the 2013-2018 period. This means that when inflation increases it will have an impact on increased economic growth as well. Inflation has a positive effect on economic growth, especially in the short term. Moderate inflation can spur economic growth by encouraging investment and consumption. However, if inflation is too high, this can have a negative impact on the economy, such as decreasing people's purchasing power and decreasing investment. Therefore , it is necessary to carry out proper inflation control in order to support sustainable economic growth. The results of further research show that the population growth variable has a positive effect on economic growth in West Sulawesi in the 2013-2018 period. This means that if population growth increases, economic growth will also increase. Population growth shows that in the early stages of development, population growth can encourage investment and innovation which ultimately increases productivity and economic growth, but uncontrolled population growth can lead to problems such as hunger and social crises, pressure on natural resources, and poverty. Therefore, it is necessary to make efforts to control population growth so as not to exceed the capacity of natural resources and increase economic development and welfare

## REFERENCES

[1] Bahasoan, A. N., Rahmat, A., & Nurhajra, A. (2020). Pengaruh Dana Alokasi Umum (Dau) Dan Belanja Modal Terhadap Pertumbuhan Ekonomi Provinsi Sulawesi Barat Periode 2015-2018. Media Bina Ilmiah, 15(3), 4245-4256.

http://ejournal.seaninstitute.or.id/index.php/Ekonomi
**Jurnal Ekonomi, Volume 12 No 02 2023**
ISSN: 2301-6280 (print) ISSN: 2721-9879 (online)

[2] Solow, R. M. (1957). Technical Change and the Aggregate Production Function. Review of Economics and Statistics, 39(3), 312-320
[3] Lucas, R. E. (1988). On the Mechanics of Economic Development. Journal of Monetary Economics, 22(1), 3-42.
[4] Romer, P. M. (1990). Endogenous Technological Change. Journal of Political Economy, 98(5), S71-S102
[5] Malthus, T. R. (1798). An Essay on the Principle of Population.
[6] Davis, K., & Blake, J. (1956). Social structure and fertility: An analytic framework. Economic Development and Cultural Change, 4(3), 211-235.
[7] Chesnais, J. C. (1992). The demographic transition: Stages, patterns, and economic implications. Oxford: Clarendon Press
[8] Friedman, M. (1963). The Monetary Theory and Policy of Henry Simons. The Journal of Political Economy, 71(1), 1-38
[9] Lucas, R. E. (1972). Expectations and the Neutrality of Money. Journal of Economic Theory, 4(2), 103-124.
[10] Phillips, A. W. (1958). The Relation between Unemployment and the Rate of Change of Money Wage Rates in the United Kingdom, 1861-1957. Economica, 25(100), 283-299.
[11] Baltagi, B. H. (2013). Econometric Analysis of Panel Data. John Wiley & Sons.
[12] Gujarati, D. N., & Porter, D. C. (2017). Basic Econometrics. McGraw Hill Education
[13] Fajardo, J. A., Urzúa, C. M., & Saavedra, J. (2019). Estimation of a Panel Data Model with Fixed Effects Using EViews. Journal of Physics: Conference Series, 1348(1), 012046.
[14] Nazif, A. (2015). Inflation and Economic Growth in Nigeria: A Granger Causality Analysis. International Journal of Humanities and Social Science Research, 5(1), 22-29.
[15] Yehouenou, L., & Adegbite, E. (2016). Inflation and Economic Growth in Sub-Saharan Africa: Some Empirical Evidence. Journal of African Business, 17(3), 319-338
[16] Chaudhry, I. S., & Malik, A. (2015). Inflation and Economic Growth Nexus: A Multivariate ARDL Approach for Pakistan. Journal of Asian Economics, 36, 53-70.
[17] Djemaci, B. (2015). The Impact of Inflation on Economic Growth: Case of Algeria 1980-2013. Journal of Economics and Sustainable Development, 6(3), 41-51.
[18] Murthy, K. V. (2016). "Population Growth and Economic Development: Evidence from India". Journal of Quantitative Economics, 14(2), 245-263.
[19] Gemmell, N., & Kneller, R. (2013). "Fiscal policy and growth: evidence from OECD countries". Applied Economics, 45(32), 4483-4488
[20] De la Croix, D., & Delavallade, C. (2011). "Growth, public investment and corruption with failing institutions". European Economic Review, 55(4), 527-543
[21] Acemoglu, D., & Johnson, S. (2007). "Disease and Development: The Effect of Life Expectancy on Economic Growth". Journal of Political Economy, 115(6), 925-985
[22] Galor, O., & Weil, D. N. (2000). "Population, Technology, and Growth: From Malthusian Stagnation to the Demographic Transition and Beyond". American Economic Review, 90(4), 806-828.