

The Effect Of Foreign Investment, Domestic Investment, Foreign Tourism, And Population Growth On Economic Growth And Per Capita Income In The City Of Batam, Indonesia

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Abstract

This study is to determine the causal relationship of the variable foreign investment, domestic investment, foreign tourists, and population growth on economic growth and per capita income in Batam. Research methods quantitative use data associative secondary in the period 2012 to 2019 and tools reviews 10. The results of that study : (1) investors significant effect restricted foreign ap economic growth in Batam; (2) domestic investment has no significant effect on economic growth in Batam; (3) foreign tourists have no significant effect on economic growth in Batam; (4) population growth has a significant effect on economic growth in Batam; (5) investors foreign, domestic investment, Foreign Tourists, population growth significantly influence economic growth in Batam. 97.48% and 4.31% by other factors; (6) foreign investment has no significant effect on per capita income in Batam; (7) domestic investment has no significant effect on per capita income in Batam; (8) foreign tourists have no significant effect on income per capita in Batam; (9) population growth has a significant effect on income per capita in Batam; (10) foreign investment, domestic investment, foreign tourists, population growth have a significant effect on per capita income in Batam. The independent variable contributed to the dependent variable by 97.66% and 2.34% by other variables.

Introduction

Economic development improves society's welfare and generally in the measure based on a country or region's economic growth. Several sectors that can drive people's productivity and impact economic growth and community income are tourism and investment. Riau Islands Province is an archipelago, and 96% is the sea and 4% island. The geographical position of the Riau Islands province from the west is adjacent to Singapore and Malaysia, to the north bordering Vietnam and Cambodia. Nationally, it is bordered by Riau, Jambi, West Kalimantan, and Bangka Belitung provinces. The geographical aspect of the Riau Islands province is the gateway to economic traffic in Indonesia's trade, tourism, and investment sectors. Batam is one of the centers and main gateways of the economy in the Riau Islands province.

The manufacturing and tourism sectors in Batam are the drivers of economic growth. In 2012, Batam's economic growth was 7.8%, and in 2019 was 4.62% or decreased by 2.78%. The income per capita for 2012-2019 grew by Rp. 1,667, and investment from 2012 to 2019 increased by 20%. The role of investment in Batam's economic growth, which tends to increase, encourages production level, the higher the economic productivity will open up jobs and economic movement. Batam's tourism sector is a concern because it is a driving force for the regional economy apart from the manufacturing sector. From 2012 to 2019, the rate of foreign tourist arrivals grew by 20%.

Batam as an industrial and tourism area has always been the center of attention of the Indonesian people, especially job seekers migrating to Batam so that Batam's population increased significantly by 24% in the period 2012 to 2019. Batam's productive age population's growth is one factor that encourages economic growth because it is a production machine or *labor force*.

The fact is that Batam's population growth is significant compared to the economic growth in 2014 - 2018. Table 1 comparison of population growth and economic growth in Batam.

Table 1.
Comparison of the population to economic growth

Year	Population	Economic growth
2018	1,329,773	4.51
2017	1,283,196	2.19

2016	1,236,399	5.43
2015	1,188,985	6.83
2014	1,141,816	7,16

(Source: Batam Central Bureau of Statistics, 2020)

Table 1 shows that population growth in Batam in 2014 - 2018 was not followed by an increase in economic growth.

II. LITERATURE REVIEW

Developing economies are efforts to improve the standard of living of a nation, which is often measured by real per capita income. Economic development aims to increase national income and increase productivity (Irawan and Suparmoko, 2014). Productivity as a quantity of economic activity is a measuring tool for economic growth. According to Sukirno (2014), economic growth is a quantitative measure that describes the development of an economy in a particular year compared to the previous year.

Investment encourages creating new capital goods that will absorb the new production factor, creating new jobs or an opportunity to flow and reduce unemployment (Wahyuni, 2014). The high investment will increase the production process because the production process requires costs to purchase raw materials, equipment, and pay employee salaries, so economic growth will also increase (Mariana, 2014). The results of Simanjuntak's research (2017) show that high investment has an impact on economic growth. Silvia et al. (2013) stated that investment has a significant effect on Indonesia's economic growth.

Tourism activity in its development is an industry that can provide economic benefits (Wibowo, 2012). According to Spillane in Pertiwi (2014), the positive impact of tourism on economic development is employment, foreign exchange sources, and development distribution. Damayanti, Kartika (2016) stated that foreign tourist visits and investment positively and significantly affect economic growth.

MI Jhingan (2012) states that population growth is related to an increase in the workforce, which is traditionally considered a positive factor in driving economic growth. The research results by Safitri and Aliasuddin (2016) show that the population has a positive and significant effect on economic growth. Cita and Wirawan (2014) stated that population growth positively and significantly impacts economic growth.

Research that Sulistiawati (2012) contradicts that the investment effect is not significant and negatively correlates to economic growth. Windayani, Budhi (2017) that tourist visits do not have a direct effect on economic growth.

The conceptual framework that shows the relationship between the research variables is in Figure 1.

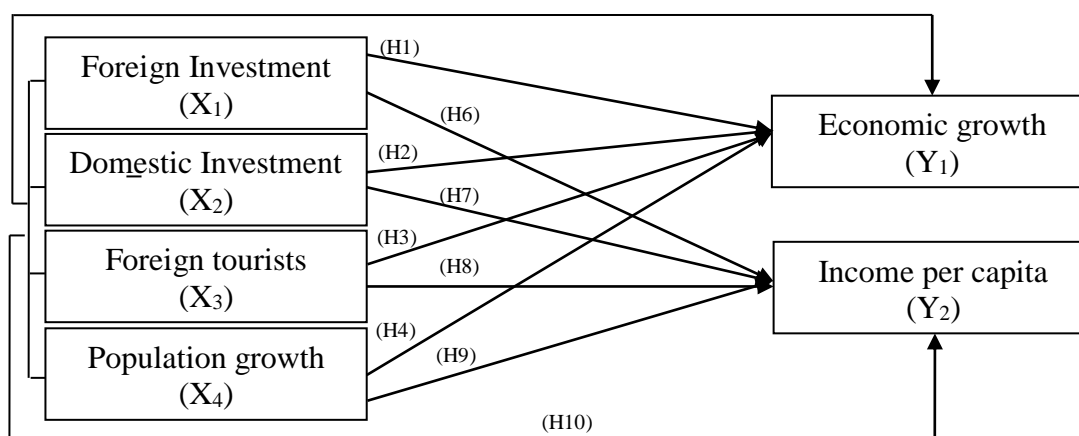


Figure 1. Conceptual Framework

III. DATA COLLECTION

Research is quantitative and observations conducted in an independent and non-participant. According to Sugiyono (2013), non-participant observation is recording, analyzing, and concluding the research. In this method, the researchers are not directly involved, and only independent observers (Sugiyono, 2013). Secondary data is processed and analyzed with the tool Eviews 10. Secondary data were obtained from the Central Statistics Agency (BPS) Batam, BP-Batam, from 2012 to 2019.

IV. DATA ANALYSIS

A probability value > 5% is usually distributed multicollinearity test if Centered VIF <10, then it is not free from multicollinearity. Heteroscedasticity test if the probability value is > 5%, then there is no heteroscedasticity, autocorrelation test if the probability value is > 5% autocorrelation.

The results of multiple regression to test the causal relationship of the variables of foreign investment, domestic investment, foreign tourists, population growth on economic growth with Eviews 10 resulted in a normality test with a probability value of 0.78 > 5%, so the data were normally distributed. The multicollinearity test resulted in the centered VIF value of the independent variable <10, so there was no multicollinearity. Heteroscedasticity test with the independent variable value > 5%, there is no heteroscedasticity. The autocorrelation test resulted in 0.52 > 5%, so there was no autocorrelation.

Table 2.
Method: Least Squares

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	19,28939	2.013582	9.579641	0.0024
X ₁	-3.06E-13	5.50E-14	-5.551965	0.0115
X ₂	1.41E-13	1.92E-13	0.732211	0.5171
X ₃	2.70E-06	1.38E-06	1.960376	0.1448
X ₄	-1.32E-05	2.13E-06	-6.227136	0.0084
R-squared	0.974810	Mean dependent var		5,665,000
Adjusted R-squared	0.941223	SD dependent var		1.830480
SE of regression	0.443783	Akaike info criterion		1.482207
Sum squared resid	0.590829	Schwarz criterion		1.531858
Log-likelihood	-0.928829	Hannan-Quinn criteria.		1.147331
F-statistic	29.02333	Durbin-Watson stat		2.743780
Prob (F-statistic)	0.009844			

The results of multiple regression processing to test the causal relationship of the variable foreign investment, domestic investment, foreign tourists, population growth on per capita income with ten eviews of the probability value on the normality test of 0.30 > 5% are declared normal—the Centered VIF value of the independent variable <10 means that there is no multicollinearity. Heteroscedasticity test with the value of the independent variable > 5%, there is no heteroscedasticity. The autocorrelation test resulted in 0.51 > 5%, so there was no autocorrelation.

Table 3.
Method: Least Squares

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	10656.73	584,7902	18,22316	0.0004
X ₁	-2.66E-12	1.60E-11	-0.166364	0.8785
X ₂	-1.72E-10	5.58E-11	-3.076661	0.0543
X ₃	0.000673	0.000400	1.684624	0.1906
X ₄	0.004968	0.000618	8,042402	0.0040
R-squared	0.976693	Mean dependent var		17050.63
Adjusted R-squared	0.945617	SD dependent var		552.6763
SE of regression	128.8846	Akaike info criterion		12.82488
Sum squared resid	49833.73	Schwarz criterion		12.87453
Log-likelihood	-46.29953	Hannan-Quinn criteria.		12.49001
F-statistic	31,42938	Durbin-Watson stat		2.467728

Prob (F-statistic)	0.008771
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V. RESEARCH RESULTS, SUMMARY, AND CONTRIBUTIONS

Research result

Hypothesis 1

Table 2 shows that the probability value of in variable X_1 is $0.0115 < 0.05$, that foreign investment has a significant effect on Batam's economic growth. A negative coefficient value indicates that if foreign investment increases, it can decrease economic growth.

Hypothesis 2

The probability value in the X_2 variable results in $0.5171 > 0.05$ that domestic investment has no significant effect on Batam's economic growth.

Hypothesis 3

The probability value in the X_3 variable results in a $0.1448 > 0.05$ that foreign tourists have no significant effect on Batam's economic growth.

Hypothesis 4

The probability value for variable X_4 is $0.0084 < 0.05$. This means that population growth has a significant effect on economic growth in Batam. The negative coefficient value shows that if population growth increases, it can decrease economic growth.

Hypothesis 5

They are resulting in a simultaneous test F value of $0.009844 < 0.05$. The independent variables are foreign investment, domestic investment, travel wan foreign, and population growth that significantly influence Batam's economic growth. R-squared value of 0.974810 or 97.48% is the independent variable's contribution to the dependent variable, and other factors do not exist in the regression model by $2, 52\%$.

Hypothesis 6

Probability value in Table 2 that a variable X_1 is $0, 8785 > 0.05$ that investment Foreign not significant effect on per capita income in Batam.

Hypothesis 7

The probability value for the variable X_2 is $0.0543 > 0.05$ that domestic investment has no significant effect on per capita income in Batam.

Hypothesis 8

The probability value in the table that the variable X_3 is generated $0, 1906 > 0.05$ that foreign tourists have no significant effect on per capita income in Batam.

Hypothesis 9

The probability value for variable X_4 is $0.0040 < 0.05$, that population growth has a significant effect on per capita income in Batam. The positive coefficient value shows that if population growth increases, it will impact economic growth.

Hypothesis 10

They result in a simultaneous test F value of $0.008771 < 0.05$. Simultaneously, independent variables are a foreign investment, domestic investment, travel wan foreign, population growth significant effect on per capita income in Batam. The R-squared value of 0.976693 or 97.66% is the independent variable's contribution to the dependent variable, and other factors are not in the regression model of 2.34% .

Summary

High population growth in Batam potentially increases unemployment. Foreign investment and domestic investment opening the production of new goods and become a significant factor in creating new jobs that are more extensive. Visit foreign tourists should move democratic economy, creative economy (labor-intensive) impacting productivity household Batam community. Simultaneous strategy through the variables of foreign investment, domestic investment, foreign tourists, population growth like this drives people's economic behavior and increases economic growth in Batam.

High population growth in Batam significantly affects income per capita society because, generally, a productive age/labor force can be a factor you all increase economic productivity. The per capita income can be increased with simultaneous in the main factor increasing economic productivity encouragement through foreign investment and domestic and foreign tourists visit. The per capita income is the keyword to boost economic growth in Batam.

Conclusion

1. Foreign investment has a significant effect on economic growth in Batam.
2. Domestic investment has no significant effect on economic growth in Batam.
3. Foreign tourists have no significant effect on economic growth in Batam.

4. Population growth has a significant effect on economic growth in Batam.
5. Foreign investment, domestic investment, foreign wan tourism, and population growth significantly affect Batam's economic growth. 97.48% of the independent variables contributed to the dependent variable and 4.31% by other factors not examined in this study.
6. Investasi foreigners did not have a significant effect on income per capita in Batam.
7. Country investment does not have a significant effect on per capita income in Batam.
8. Foreign tourists not significant effect on per capita income in Batam.
9. Population growth residents a significant effect on per capita income in Batam.
10. Investasi foreign, domestic investment, travel wan foreign, and population growth significantly affect Batam's per capita income. The independent variable's contribution to the dependent variable was 97.66% and 2.34% by other variables not examined.

Suggestion

Batam's economic growth can be increased by increasing production and community income, including income from wages, salaries, or other income from the service sector. The Batam city government can encourage economic growth by increasing small and medium enterprises (MSMEs), cooperatives and increasing people's income by increasing the City Minimum Wage (UMK).

The Batam city government must respond to high population growth by improving the quality of human resources so that Batam residents are more productive, innovative, competitive, and have a job or entrepreneurial opportunities to reduce unemployment and increase the community's per capita income.

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