E-ISSN: 2807 - 6311, P-ISSN: 2807 - 6494



# THE INFLUENCE OF MACROECONOMIC FACTORS ON HUMAN DEVELOPMENT INDEX AND POVERTY RATE IN BANGKA BELITUNG ISLANDS PROVINCE

Ernesth Cancerio Reynaldo<sup>1\*</sup> Darwati Susilastuti<sup>2</sup> Meirinaldi<sup>3</sup>

Universitas Borobudur, Indonesia

E-mail: ec.reynaldo@gmail.com1\*, darwati\_susilastuty@borobudur.ac.id2,

Meirinaldi2505@gmail.com3

\*Correspondence: ec.reynaldo@gmail.com1\*

**Abstract:** Background: The Human Improvement File is a marker used to quantify one of the significant perspectives connected with the nature of monetary advancement results, to be specific the level of human improvement in view of three pointers, in particular wellbeing, training accomplished, and expectations for everyday comforts. Poverty is a condition of the population who is unable to meet the minimum basic needs for a decent life. Poverty results in a decrease in the quality of human resources which is a global problem in development.

**Aim:** This study expects to examine the impact of Territorial Unique Income, Capital Use and Financial Development (Gross domestic product) on the Human Advancement File and Destitution Levels in the Rule/City of the Bangka Belitung Islands Region in 2017-2021.

**Method:** The insightful technique utilized is board information relapse with the Normal Impact Model methodology through e-sees 10 programming.

**Finding:** The consequences of this study demonstrate that Territorial Unique Income, Capital Consumptions and Monetary Development (Gross domestic product) to some extent fundamentally affect the Human Improvement File, and Provincial Unique Income and Financial Development (Gross domestic product) to some degree essentially affect the Neediness Level, while Capital Uses affect the Destitution Level. All the while, Territorial Unique Income, Capital Uses and Financial Development (Gross domestic product) essentially affect the Human Advancement Record and Destitution Levels in the Rule/City of the Bangka Belitung Islands Region in 2017-2021.

**Keywords:** Regional Original Revenue, Capital Expenditure, Economic Growth (GDP), Human Development Index, Poverty Level

#### **INTRODUCTION**

Financial development is one of the large scale markers to see truly monetary execution in a district. The pace of monetary development is determined in light of changes in Gross domestic product at consistent costs for the year being referred to contrasted with the earlier year. Monetary development should be visible as an expansion in how much labor and products delivered by all business fields of financial movement in a space during a year. Positive development shows that the economy has advanced contrasted with the earlier year, while negative development delineates that economy has diminished contrasted with the earlier year. In light of consistent 2010 costs, the Gross domestic product worth of the Bangka Belitung Islands Territory in 2021 has expanded contrasted with 2020. The increment was driven by expanded creation in all business fields.

The GDP value at constant 2010 prices for the Bangka Belitung Islands Province in 2021 will reach IDR 55.36 trillion, an increase compared to 2020 which amounted to IDR 52.70 trillion. This shows that in 2021 the economy of the Bangka Belitung Islands Territory will develop by 5.05%, an increment contrasted with the earlier year's monetary development which shrunk by 2.30%. The Gross domestic product worth of the Bangka Belitung Islands Territory, based on current prices in 2021, reaches IDR 85.94 trillion. In nominal terms, this GDP value has increased by 13.84% compared to 2020 which reached IDR 75.50

Meanwhile, the added value that can be created by all business fields in the Bangka Belitung Islands Province in 2021 which is calculated at constant prices (ADHK-GDP) reaches IDR 55.36 trillion, an increase compared to 2020 which reached IDR 52.70 trillion. ADHK-GDP growth is commonly referred to as economic growth, which describes an increase in real production without being affected by inflation in the Bangka Belitung Islands Province. Beginning around 2020 the Coronavirus pandemic has raised a ruckus around town local area and an affects the economy, including the economy of the Bangka Belitung Islands Region. Because of the Coronavirus pandemic, the economy of the Bangka Belitung Islands Region in 2020 which was determined from ADHK Gross domestic product development had encountered a constriction of 2.30%. In any case, in 2021, the economy of the Bangka Belitung Islands Region has figured out how to resuscitate and develop by 5.05%. This is affected by the development that happens in business handles that make up the economy of the Bangka Belitung Islands Area.

**Table 1. Macroeconomic Variable Data in the Bangka Belitung Islands Province** 

Year	Regency/City	Regional Original Income (IDR Billion)	Capital Expenditure (IDR Billion)	ADHK- GDP (IDR Billion)	Human Development Index (%)	Poverty Level (%)
		(X <sub>1</sub> )	(X <sub>2</sub> )	(X <sub>3</sub> )	(Y <sub>1</sub> )	(Y <sub>2</sub> )
2017	Pangkalpinang City	173.95	251.13	8,358.48	76.86	4.80
	Reg. Bangka	196.07	217.32	9,355.33	71.09	5.10

| The Influence Of Macroeconomic Factors On Human Development Index And Poverty Rate In Bangka Belitung Islands Province Province

	Reg. Bangka Barat	78.49	143.44	9,673.71	67.94	2.98
	Reg. Bangka Tengah	97.38	133.79	5,620.61	68.99	6.07
	Reg. Bangka Selatan	84.71	174.75	5,763.87	65.02	3.92
	Reg. Belitung	193.20	211.15	5,969.67	70.93	7.77
	Reg. Belitung Timur	109.66	107.11	5,110.30	69.57	6.81
2018	Pangkalpinang City	167.13	227.83	8,782.79	77.43	4.95
	Reg. Bangka	173.06	105.76	9,778.03	71.80	5.47
	Reg. Bangka Barat	69.77	147.13	10,177.20	68.68	3.05
	Reg. Bangka Tengah	76.00	191.74	5,812.70	69.52	5.81
	Reg. Bangka Selatan	49.43	229.15	6,024.21	65.98	3.70
	Reg. Belitung	191.94	206.96	6,290.86	71.70	7.56
	Reg. Belitung Timur	109.46	173.68	5,326.12	70.22	7.06
2019	Pangkalpinang City	155.12	251.12	9,069.28	77.97	4.25
	Reg. Bangka	144.67	189.67	10,058.79	72.39	4.92
	Reg. Bangka Barat	67.75	173.35	10,895.22	69.05	2.67
	Reg. Bangka Tengah	88.85	158.21	5,883.10	70.33	5.02
	Reg. Bangka Selatan	62.94	222.52	6,176.84	66.54	3.36
	Reg. Belitung	177.67	235.90	6,500.42	72.46	6.29
	Reg. Belitung Timur	111.25	149.64	5,499.98	70.84	6.60
2020	Pangkalpinang City	140.96	162.80	8,796.58	78.22	4.36
	Reg. Bangka	155.73	133.63	9,987.14	72.40	4.51
	Reg. Bangka Barat	64.30	141.86	10,310.64	69.08	2.70
	Reg. Bangka Tengah	85.20	131.58	5,714.89	70.45	4.85
	Reg. Bangka Selatan	50.21	152.88	6,057.04	66.90	3.52
	Reg. Belitung	162.13	139.69	6,352.03	72.51	6.27
	Reg. Belitung Timur	102.16	83.17	5,464.77	70.92	6.52
2021	Pangkalpinang City	168.86	188.18	9,611.88	78.57	4.76
	Reg. Bangka					

Reg. Bangka Barat	59.69	119.62	10,331.79	69.60	2.75
Reg. Bangka Tengah	76.87	115.48	5,986.90	70.89	5.13
Reg. Bangka Selatan	63.33	149.56	6,275.55	67.06	3.69
Reg. Belitung	185.89	86.71	6,710.01	72.57	7.15
Reg. Belitung Timur	117.86	96.10	5,713.65	71.42	7.20

Source: https://babel.bps.go.id

As far as the development pace of Provincial Unique Income (ROR) for the Bangka Belitung Islands Area in 2017-2021 there have been variances. In 2020 the ROR of the Bangka Belitung Islands Region has diminished from 2019, in particular 17.33%. The decrease in ROR came from a decrease in regional taxes of 19.37% and regional fees of 25.43% which was due to restrictions on community movement activities due to the conditions of the Covid-19 pandemic. Furthermore, in 2021 the ROR of the Bangka Belitung Islands Province will experience a growth of 26.2%. The greatest ROR income part is nearby duty income which comes to 92.68% of the complete ROR. Local duty incomes come from engine vehicle charge, motor vehicle ownership transfer fee, motor vehicle fuel tax, tax on collection and utilization of underground water and cigarette tax. The largest share of local tax revenues in the first quarter of 2021 came from motor vehicle taxes which reached 40.92% or IDR 59.53 billion. Motor vehicle fuel tax revenues reached IDR 45.59 billion with a share of 29.96% of the total regional tax revenues. Meanwhile, motor vehicle transfer fees reached Rp 27.58 billion with a share of 18.96% of the total regional tax revenue. This condition is in line with the increase the number of new vehicle registrations, both two-wheeled and four-wheeled. The trend of increasing new vehicle registrations has been going on since the fourth quarter of 2020, after declining significantly in the second quarter of 2020. Registration of new four-wheeled vehicles in the first quarter of 2021 increased by 1.39%, while twowheeled vehicles increased by 24.15 % compared to the previous quarter. In the second guarter of 2021 it is estimated that new vehicle registrations will increase, especially four-wheeled vehicles in line with the central government's policy of exempting sales tax on luxury goods for certain vehicles for the period March-May 2021. This condition is expected to increase regional tax revenues. In addition, the Provincial Government of the Bangka Belitung Islands has also consistently implemented various policy programs to increase vehicle tax revenues such as mobile samsat, local samsat, counseling through the media, and others. Meanwhile, in terms of the growth rate of capital expenditures in 2019, it was 28.51%, an increase from 2018. Realization of capital expenditures in 2021 has decreased from 2020. This is due to the refocusing and reallocation of expenditures which are still being carried out as support for the continuity of the handling of Covid-19 and economic recovery public.

The human advancement record in the Bangka Belitung Islands Area has improved from one year to another with a typical development of 0.61% during the 2017-2021 period. The HDI value of the Bangka Belitung Islands Province is 71.69 in 2021, or a growth of 0.31% compared to 2020. The slowdown in growth is the impact of the Covid-19 pandemic which requires schools to be carried out online, the declining quality of public health and declining quality of life standards worthy of society. These three things are the basic dimensions that serve as indicators and benchmarks for HDI growth in a region. In addition, Indonesia's macroeconomic problem which has always been in the spotlight is poverty. **Poverty** the fundamental and multidimensional problem for a country. In general, poverty is a condition in which a person is financially unable to meet the average standard of living of the people in an area. The percentage of poor people in the Bangka Belitung Islands Province has decreased by 4.67% in September 2021 compared to the previous period which was 4.90%. This is in line with the decline in the poverty rate at the national level, which was 10.14% in March 2021 to 9.71% in September 2021. Nationally, Bangka Belitung is in second place, the same as DKI Jakarta after South Kalimantan for provinces with the percentage of poor people the lowest in September 2021. On the other hand, the per capita poverty line in Bangka Belitung reaches IDR 770,457 per capita per month. This poverty line is the highest compared to other provinces, while the national average poverty line is only IDR 486,168. In line with that, the Bangka Belitung Islands Region is additionally recorded to have the least gini proportion in Indonesia, which is 0.247. This demonstrates that the degree of pay imbalance in the Bangka Belitung Islands Area is very low. The percentage of poor people (population below the poverty line) in the Bangka Belitung Islands Province for the September 2021 period was 4.67% (69.70 thousand people), a decrease compared to the September 2020 period of 4.89% (72.05 thousand people). During the period September 2020 - September 2021, the number of poor people in urban and rural areas has decreased. In the period September 2020 - September 2021 the poverty line rose 5.96% from IDR 727,114 per capita per month in September 2020 to IDR 770,457 per capita per month in September 2021. On the other hand, the poverty depth index poverty severity index decreased. The poverty depth index decreased from 0.77 in September 2020 to 0.56 in September 2021. The poverty depth index value indicates that the average expenditure of the poor is getting closer to the poverty line. Meanwhile, the poverty severity index value was 0.17 in September 2020 to 0.11 in September 2021. The poverty depth index in rural areas was 0.71, while in urban areas it was 0.44 in September 2021. This shows that the expenditure of the poor in rural areas is farther away or deeper when measured from the poverty line compared to urban areas. Meanwhile, the Poverty Severity Index in rural areas was 0.12, higher than that in urban areas of 0.11 in September 2021. Based on the above problems, the research problem can be formulated as follows:

1) How does Regional Original Revenue (ROR), Capital Expenditure and Economic Growth (GDP) simultaneously influence the Human Development Index (IPM) in the Bangka Belitung Islands Province in 2017-2021?

- 2) How does Regional Original Revenue (ROR), Capital Expenditure and Economic Growth (GDP) partially affect the Human Development Index (IPM) in the Bangka Belitung Islands Province in 2017-2021?
- 3) How does Regional Original Revenue (ROR), Capital Expenditure and Economic Growth (GDP) simultaneously influence the Poverty Level in the Bangka Belitung Islands Province in 2017-2021?
- 4) How does Regional Original Revenue (ROR), Capital Expenditure and Economic Growth (GDP) partially affect on the Poverty Rate in the Bangka Belitung Islands Province in 2017-2021?

In view of detailing of the inquiries over, the system basic this exploration can be depicted in Figure 1.

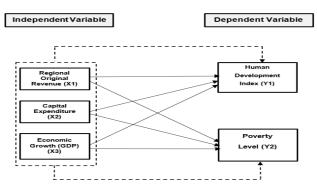


Figure 1. Research Framework

Information:

Partial influence
Simultaneous influence

**The hypothesis** based on Figure 1 can be derived from the research hypothesis as follows:

H1: Regional Original Revenue (ROR), Capital Expenditure and Economic Growth (GDP)

simultaneously influence the Human Development Index (IPM) in the Bangka Belitung Islands Province in 2017-2021.

H2: Regional Original Revenue (ROR), Capital Expenditure and Economic Growth (GDP) have a partial effect on the Human Development Index (IPM) in the Bangka Belitung Islands Province in 2017-2021.

H3: Regional Original Revenue (ROR), Capital Expenditure and Economic Growth (GDP) simultaneously affect the Poverty Level in the Bangka Belitung Islands Province in 2017-2021.

H4: Regional Original Revenue (ROR), Capital Expenditure and Economic Growth (GDP) partially affect the Poverty Rate in the Bangka Belitung Islands Province in 2017-2021.

#### **METHOD**

**The population and sample** utilized in this study are information on Provincial Unique Income (ROR), Capital Consumption, Monetary Development

(Gross domestic product), Human Improvement Record, and Neediness Rate in the Bangka Belitung Islands Region which are as of now accessible, distributed for later assortment and handled by specialists during 2017-2021.

The analysis technique utilized is different direct relapse investigation method, to ascertain the greatness of the impact of macroeconomic factors through the e-views10. The means in the numerous straight relapse examination are via completing the old style suspicion test, including the ordinariness test, autocorrelation test, and heteroscedasticity test. After the old style presumption test, a speculation test was done comprising of a t-test, F-test, and the coefficient of assurance (R2).

**Model formulation** based on the framework above, 2 econometric equation model formulations can be made, namely:

Equation model 1 :  $Y_1 = \alpha + \beta_{11} X_1 + \beta_{12} X_2 + \beta_{13} X_3 + \epsilon$ 

Equation model 2 :  $Y_2 = \alpha + \beta_{21} X_1 + \beta_{22} X_2 + \beta_{23} X_3 + \varepsilon$ 

**Operational definitions** in this study are presented in Table 2.

**Table 2. Operational Definition of Research** 

No.	Variable	<b>Definitions and indicators</b>	Scale
1	The Human	Is a near proportion of future, proficiency,	Ratio
	Development Index (Y <sub>1</sub> )	schooling, and expectations for everyday comforts of individuals in a space.  The pointer utilized is The Human Improvement List information in the Regimes/Urban areas of the Bangka Belitung Islands Territory in 2017-2021.	

2	Poverty Rate (Y <sub>2</sub> )	Is the level of the populace beneath the base destitution line in acquiring a satisfactory way of life in a space.  The pointer utilized is information on the unfortunate populace list in the Rule/City of the Bangka Belitung Islands Region in 2017-2021.	Ratio
3	Regional Original Revenue (X <sub>1</sub> )	Is income originating from regional taxes, regional levies, and all rights that are recognized as an addition to the value of net assets in an area. The marker involved is information on Local Unique Income in the Rule/City of the Bangka Belitung Islands Area for 2017-2021.	Ratio
4	Capital Expenditures (X <sub>2</sub> )	Is spending plan uses from a locale to get or add fixed resources as well as different resources that benefit more than one bookkeeping period (a year) and surpass the base capitalization esteem limit. The indicator used is Capital Expenditure data in the Regencies/Cities of the Bangka Belitung Islands Province for 2017-2021.	Ratio
5	Economic Growth (X <sub>3</sub> )	Is an economic indicator to determine the economic condition in an area.  The indicator used is Economic Growth (GDP) data in the Regencies/Cities of the Bangka Belitung Islands Province for 2017-2021.	Ratio

## **RESULTS AND DISCUSSION**

In light of the board information relapse model methodology with eviews10 (Normal Impact Model, Fixed Impact Model, and Arbitrary Impact Model) and the test that has been

completed (Chow test) which shows that the relapse model that is more suitable to use in this review is Normal Impact Model. The aftereffects of board information relapse and t-test are introduced in Table underneath.

# **Table 3. Equation Model 1**

Dependent Variable: LOG(Y1) Method: Panel Least Squares Date: 05/27/22 Time: 00:22 Sample: 1 35 Periods included: 7 Cross-sections included: 5

Total panel (balanced) observations: 35	

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C LOG(X1) LOG(X2) LOG(X3)	6.924882 0.564840 -0.160421 -0.808318	0.596132 0.038809 0.056702 0.065294	11.61636 14.55433 -2.829202 -12.37969	0.0000 0.0000 0.0081 0.0000
R-squared Adjusted R-squared S.E. of regression Sum squared resid Log likelihood F-statistic Prob(F-statistic)	0.914036 0.905717 0.905240 0.287126 34.39282 109.8723 0.000000	Mean depende S.D. depende Akaike info cr Schwarz crite Hannan-Quin Durbin-Watso	dent var ent var iterion rion in criter.	1.571578 0.313429 -1.736733 -1.558979 -1.675372 1.596000

Source: Author Processing Results, 2022

Based on the results above, the regression model is obtained as follows.  $Y_1 = 6.925 + 0.565 X_1 - 0.160 X_2 - 0.808 X_3 + \epsilon_1$ 

Model interpretation:

- (1) The constant  $\alpha$  of 6.925 states that if the variable  $X_i$  is constant ( $X_1$ ,  $X_2$ , and  $X_3$ ), then the variable  $Y_1$  is 6.925.
- (2) For every increase of 1 unit from  $X_1$  will increase  $Y_1$  by 0.565 assuming that other factors remain.
- (3) For every increase of 1 unit from  $X_2$  will decrease  $Y_1$  by 0.160 assuming that other factors remain.
- (4) For every increase of 1 unit from  $X_3$  will decrease  $Y_1$  by 0.808 assuming that other factors remain.

**Table 4. Equation Model 2** 

Dependent Variable: LOG(Y2) Method: Panel Least Squares Date: 05/27/22 Time: 00:42 Sample: 1.35 Periods included: 7 Cross-sections included: 5 Total panel (balanced) observations: 35

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C LOG(X1) LOG(X2) LOG(X3)	3.494381 0.074968 0.006220 0.043313	0.194046 0.012633 0.018457 0.021254	18.00801 5.934447 0.337009 2.037919	0.0000 0.0000 0.7384 0.0502
R-squared Adjusted R-squared S.E. of regression Sum squared resid Log likelihood F-statistic Prob(F-statistic)	0.599902 0.561182 0.031327 0.030423 73.67565 15.49364 0.000002	Mean depend S.D. depende Akaike info cri Schwarz criter Hannan-Quin Durbin-Watso	nt var terion ion n criter.	4.262936 0.047291 -3.981466 -3.803712 -3.920105 1.112793

Source: Author Processing Results, 2022

Based on the results above, the regression model is obtained as follows.  $Y_2 = 3.494 + 0.075 X_1 + 0.006 X_2 + 0.043 X_3 + \epsilon_2$ 

Model interpretation:

(1) The constant  $\alpha$  of 3.494 states that if the variable  $X_i$  is constant ( $X_1$ ,  $X_2$ , and  $X_3$ ), then the variable  $Y_2$  is 3.494.

- (2) For every increase of 1 unit from  $X_1$  will increase  $Y_2$  by 0.075 assuming that other factors remain.
- (3) For every increase of 1 unit from  $X_2$  will increase  $Y_2$  by 0.006 assuming that other factors remain.
- (4) For every increase of 1 unit from  $X_3$  will increase  $Y_2$  by 0.043 assuming that other factors remain.

## **The Classical Assumption Model**

As per the reason for the exploration to be completed, specifically to figure out how the impact of Provincial Unique Income, Capital

Consumption, and Monetary Development (Gross domestic product) has on the Human Advancement List and Neediness Rate in the Rules/Urban communities of the Bangka Belitung Islands Territory in 2017-2021, preceding information examination is done and testing the speculation will initially be tried on the presumptions in the relapse investigation, in particular testing the traditional suppositions which incorporate the ordinariness test, multicollinearity and test. heteroscedasticity test.

#### **Equation Model 1:**

1. Normality Assumption Test

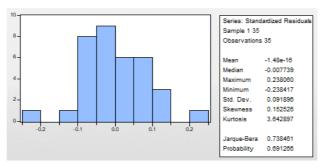


Figure 2. Normality Assumption Test Results Source: Author Processing Results, 2022

The results obtained from the normality test are as follows.

- Hypothesis: H<sub>0</sub>: Residuals follow a normal distribution, and H<sub>1</sub>: Residuals do not follow a normal distribution.
- Test Statistics : Jarque-Bera = 0.738 and Probability = 0.691.

- Rejection area: If Probability 
   0.05 then H<sub>0</sub> is rejected.
- Conclusion: Since the Likelihood esteem = 0.691 > 0.05, H0 is acknowledged. So it tends to be reasoned that the residuals follow an ordinary circulation.
- 2. Multicollinearity Assumption Test

**Table 5. Multicollinearity Assumption Test Result** 

	LOG(X1)	LOG(X2)	LOG(X3)
LOG(X1)	1.000000	0.160683	0.164130
LOG(X2)	0.160683	1.000000	0.185695
LOG(X3)	0.164130	0.185695	1.000000

Source: Author Processing Results, 2022

The outcomes acquired from the multicollinearity test are the coefficient values between factors less than 0.85. This is according to the test estimates that the results of the multicollinearity test show that there is no association coefficient between

factors that is more than 0.85. So it will in general be construed that the data doesn't have a multicollinearity issue.

3. Heteroscedasticity Assumption Test

**Table 6. Heteroscedasticity Assumption Test Result** 

Panel Cross-section Heteroskedasticity LR Test Null hypothesis: Residuals are homoskedastic Equation: UNTITLED Specification: LOG(Y1) C LOG(X1) LOG(X2) LOG(X3)

Likelihood ratio	Value 6.068401	df 5	Probability 0.2996
LR test summary:			
	Value	df	
Restricted LogL	34.39282	31	<del>_</del>
Unrestricted LogL	37.42702	31	

Source: Author Processing Results, 2022

The results obtained from the heteroscedasticity test with the Glejser method are as follows.

- Hypothesis: H<sub>0</sub>: constant residual variance (heteroscedasticity does not occur), and H<sub>1</sub>: residual variance is not constant (heteroscedasticity occurs).
- Test Statistics :
   Likelihood ratio = 6.0684 and
   Probability = 0.2996.

- Rejection area:
   If the Prob. Likelihood ratio 0.2996
   > 0.05 then H<sub>1</sub> is rejected.
- Conclusion:

   Because all Prob. Likelihood ratio
   = 0.2996 > 0.05 then H<sub>0</sub> is accepted. So it tends to be presumed that the leftover fluctuation is steady so heteroscedasticity doesn't happen.

# **Equation Model 2:**

1. Normality Assumption Test

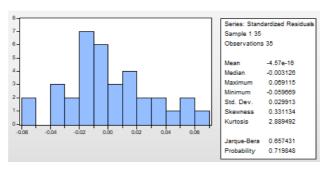


Figure 3. Normality Assumption Test Results

Source: Author Processing Results, 2022

The results obtained from the normality test are as follows.

- Hypothesis :  $H_0$  : Residuals follow a normal distribution, and  $H_1$  : Residuals do not follow normal distribution
- Test Statistics :
   Jarque-Bera = 0.657 and Probability = 0.720
- Rejection area : If Probability < 0.05 then  $H_0$  is rejected
- Conclusion:
   Because the Probability value =
   0.720 > 0.05, H<sub>0</sub> is accepted. So it can be concluded that the residuals follow a normal distribution.
- 2. Multicollinearity Assumption Test

**Table 7. Multicollinearity Assumption Test Result** 

	LOG(X1)	LOG(X2)	LOG(X3)
LOG(X1) LOG(X2) LOG(X3)	1.000000 0.160683 0.164130	0.160683 1.000000 0.185695	0.164130 0.185695 1.000000

Source: Author Processing Results, 2022

The outcomes acquired from the multicollinearity test are the coefficient values between factors less than 0.85. This is according to the test decides that the eventual outcomes of the multicollinearity test

show that there is no association coefficient between factors that is more than 0.85. So it will in general be assumed that the data doesn't have a multicollinearity issue.

3. Heteroscedasticity Assumption Test

# **Table 8. Heteroscedasticity Assumption Test Result**

Panel Cross-section Heteroskedasticity LR Test Null hypothesis: Residuals are homoskedastic Equation: UNTITLED Specification: LOG(Y2) C LOG(X1) LOG(X2) LOG(X3)

Likelihood ratio	Value 2.321300	df 5	Probability 0.8031
LR test summary:			
	Value	df	
Restricted LogL	73.67565	31	
Unrestricted LogL	74.83630	31	

Source: Author Processing Results, 2022

The results obtained from the heteroscedasticity test with the Glejser method are as follows.

- Hypothesis: H<sub>0</sub>: constant residual variance (heteroscedasticity does not occur), and H<sub>1</sub>: residual variance is not constant (heteroscedasticity occurs).
- Test Statistics :
   Likelihood ratio = 2.3213 and
   Probability = 0.8031.
- Rejection area:
   If the Prob. Likelihood ratio 0.8031 >
   0.05 then H<sub>1</sub> is rejected.
- Conclusion:

   Because all Prob. Likelihood ratio =
   0.8031 > 0.05 then H<sub>0</sub> is accepted. So it can be concluded that the residual variance is constant so that heteroscedasticity does not occur.

# **Hypothesis Testing**

Testing this speculation is surveyed by laying out the invalid speculation (H0) and the elective speculation (H1), measurable test research and ascertaining factual test

values, working out theories, deciding the critical level and making inferences. Speculation testing in this review utilizes halfway testing (t-test) and synchronous testing (F-test) and the coefficient of assurance (R2 test).

# **Equation Model 1:**

- Simultaneous testing (F-test)
   Simultaneous testing is a test conducted to see whether a regression model that is formed as a whole is a significant model.
  - Hypothesis :  $H_0: \beta_1 = \beta_2 = \beta_3 = 0$   $H_1: \text{at least 1 } \beta_i \neq 0 \text{ where } j = 1,2,3$
  - Test Statistics
     F-statistic = 109.872 and Prob (F-statistic) = 0.000
  - Rejection area
     If Prob (F-statistic) < 0.05 then H<sub>0</sub>
     is rejected
  - Conclusion
     Because the Prob value (F-statistic)
     = 0.000 < 0.05, H₀ is rejected.
     So it can be concluded that the regression model formed is significant.</li>

2) Partial testing (t-test)

regression model has an individual effect.

Partial testing is a test conducted to see whether a variable in the formed

- (1) Testing for X<sub>1</sub>
  - Hypothesis

 $H_0: \beta_1 = 0$ 

 $H_1: \beta_1 \neq 0$ 

Test Statistics

t-statistic = 14.554 and Prob (t-statistic) = 0.000

• Rejection area

If Prob (t-statistic) < 0.05 then  $H_0$  is rejected

Conclusion

Because the Prob value (t-statistic) = 0.000 < 0.05,  $H_0$  is rejected. So it can be concluded that  $X_1$  has a significant influence on  $Y_1$ .

## (2) Testing for X<sub>2</sub>

Hypothesis

 $H_0: \beta_2 = 0$ 

 $H_1: \beta_2 \neq 0$ 

Test Statistics

t-statistic = -2.829 and Prob (t-statistic) = 0.008

• Rejection area

If Prob (t-statistic) < 0.05 then H<sub>0</sub> is rejected

Conclusion

Because the Prob value (t-statistic) = 0.008 < 0.05,  $H_0$  is rejected. So it can be concluded that  $X_2$  has a significant influence on  $Y_1$ .

## (3) Testing for X₃

Hypothesis

 $H_0: \beta_3 = 0$ 

 $H_1: \beta_3 \neq 0$ 

Test Statistics

t-statistic = -12.380 and Prob (t-statistic) = 0.000

Rejection area

If Prob (t-statistic) < 0.05 then H<sub>0</sub> is rejected

Conclusion

Because the Prob value (t-statistic) = 0.000 < 0.05,  $H_0$  is rejected. So it can be concluded that  $X_3$  has a significant influence on  $Y_1$ .

3) The coefficient of determination (R<sup>2</sup>)

Based on the results of the estimation of the regression parameters, an R-squared value of 0.914 is obtained, which means that the variables  $X_1$ ,  $X_2$ , and  $X_3$  affect the  $Y_1$  variable by 91.4%, the remaining 8.6% is influenced by other variables that are not included in this research model.

## **Equation Model 2:**

- Simultaneous testing (F-test)
   Simultaneous testing is a test conducted to see whether a regression model that is formed as a
  - Hypothesis:

$$H_0: \beta_1 = \beta_2 = \beta_3 = 0$$

whole is a significant model.

 $H_1$ : at least 1  $\beta_j \neq 0$  where j = 1,2,3

Hypothesis

 $H_0: \beta_1 = 0$ 

 $H_1: \beta_1 \neq 0$ 

• Test Statistics

t-statistic = 5.934 and Prob (t-statistic) = 0.000

• Rejection area

If Prob (t-statistic) < 0.05 then H<sub>0</sub> is rejected

Conclusion

Because the Prob value (t-statistic) = 0.000 < 0.05,  $H_0$  is rejected. So it can be concluded that  $X_1$  has a significant influence on  $Y_2$ .

- (2) Testing for X<sub>2</sub>
  - Hypothesis

 $H_0:\beta_2=0$ 

 $H_1:\beta_2\neq 0$ 

Test Statistics

t-statistic = 0.337 and Prob (t-statistic) = 0.738

• Rejection area

If Prob (t-statistic) < 0.05 then H₀ is rejected

- Test Statistics
   F-statistic = 15.494 and Prob (F-statistic) = 0.000
- Rejection area
   If Prob (F-statistic) < 0.05 then H<sub>0</sub>
   is rejected
- Conclusion
   Because the Prob value (F-statistic)
   = 0.000 < 0.05, H<sub>0</sub> is rejected.
   So it can be concluded that the regression model formed is significant.
- Partial testing (t-test)
   Partial testing is a test conducted to see whether a variable in the formed regression model has an individual effect.
  - (1) Testing for  $X_1$

#### Conclusion

Because the Prob value (t-statistic) = 0.738 > 0.05, H<sub>0</sub> is accepted. So it can be concluded that X<sub>2</sub> has not significant influence on Y<sub>2</sub>.

## (3) Testing for X<sub>3</sub>

Hypothesis

 $H_0: \beta_3 = 0$  $H_1: \beta_3 \neq 0$ 

Test Statistics

t-statistic = 2.038 and Prob (t-statistic) = 0.050

Rejection area

If Prob (t-statistic) < 0.05 then H<sub>0</sub> is rejected

Conclusion

Because the Prob value (t-statistic) = 0.050 = 0.05, H<sub>0</sub> is rejected. So it can be concluded that  $X_3$  has a significant influence on  $Y_2$ .

3) The coefficient of determination (R<sup>2</sup>)
Based on the results of the estimation of the regression parameters, an R-squared value of 0.599 is obtained, which means that the variables X<sub>1</sub>, X<sub>2</sub>, and X<sub>3</sub> affect the

Y<sub>2</sub> variable by 59.9%, the remaining 40.1% is influenced by other variables that are not included in this research model.

# **Model Feasibility Testing**

Considering the aftereffects of the four econometric model possibility tests (the decency of an econometric model) which incorporate hypothetical believability, exactness of the

evaluations of the boundaries, logical capacity, and ability to estimate (Yuyun Wirasasmita, 2008), the resulting research model is feasible. that is:

(1) Theoretical plausibility. The results of the author's theory suitability test are presented in the following table.

**Table 9. Theoritical Plausibility** 

No.	Relationship Between Variables	Pre	Post	Conformity
		estimate	estimate	
1	The Effect of Regional Original Revenue			
	(X <sub>1</sub> ) on the Human Development Index	+	+	Yes
	(Y <sub>1</sub> ).			
2	Effect of Capital Expenditures (X2) on the			Yes
	Human Development Index (Y1).	+	+	
3	Effect of Economic Growth (GDP) (X <sub>3</sub> ) on			Yes
	the Human Development Index (Y <sub>1</sub> ).	+	+	

4	The Effect of Regional Original Revenue $(X_1)$ on the Poverty Level $(Y_2)$ .	+	+	Yes
5	Effect of Capital Expenditures $(X_2)$ on Poverty Rate $(Y_2)$ .	+	-	No
6	Effect of Economic Growth (GDP) $(X_3)$ on the Poverty Level $(Y_2)$ .	+	+	Yes

Based on the Table 9 above, it can be explained that the theoretical plausibility test shows that the model before and after the estimation for variables  $X_1$ ,  $X_2$ , and  $X_3$  for variable  $Y_1$  is appropriate. And for variables  $X_1$  and  $X_3$  to variable  $Y_2$  it is appropriate, while variable  $X_2$  to  $Y_2$  is not appropriate.

(2) Exactness of the evaluations of the boundaries. This examination model is shown by the satisfaction of the logical suspicions and the low likelihood of factual mistake in the exploration model (p-esteem <  $\alpha$  = 0.05). The research produces an estimator of the regression coefficient that is accurate, unbiased and significant.

**Table 10. Accuracy of the Estimate of The Parameters** 

	Equation Model 1	Equation Model 2		
$X_1$	$(X_1) p$ -value : 0,000 < $\alpha$ (0,05)	$X_1$	$(X_1) p$ -value : 0,000 < $\alpha$ (0,05)	
$X_2$	$(X_2) p$ -value : 0,008 < $\alpha$ (0,05)	$X_2$	$(X_2) p$ -value : 0,738 > $\alpha$ (0,05)	
X <sub>3</sub>	$(X_3) p$ -value : 0,000 < $\alpha$ (0,05)	X <sub>3</sub>	$(X_3) p$ -value : 0,050 = $\alpha$ (0,05)	

The assumptions of analysis are met and the probability of statistical error of the model is low (p-value  $< \alpha = 0.05$ ) at  $X_1$ ,  $X_2$ , and  $X_3$  in Equation model 1, and at  $X_1$  and  $X_3$  in Equation model 2. While  $X_2$  in Equation 2 does not meet the due diligence test which is accurate for future estimation because p-value =  $0.738 > \alpha = 0.05$ .

(3) Explanatory abilities. This implies that the subsequent examination model can make sense of the connection between monetary peculiarities which is described by a Standard Mistake of Assessments which is more modest than ½ of the relapse coefficient.

**Table 11. Explanatory Ability** 

Partial Effect	Regression Coefficient (β)	Standard Error	1/2 β	Test Results
Equation Model 1				
X <sub>1</sub>	0,565	0,039	0,282	SE < ½ β
X <sub>2</sub>	-0,160	0,057	-0,080	SE > ½ β
X <sub>3</sub>	-0,808	0,065	-0,404	SE > ½ β
Equation Model 2				

X <sub>1</sub>	0,075	0,013	0,037	SE < ½ β
X <sub>2</sub>	0,006	0,018	0,003	SE > ½ β
X <sub>3</sub>	0,043	0,021	0,021	SE = ½ β

Based on the Table 11 above it can be explained that the explanatory ability test shows the standard error in Equation model 1 the partial effect of  $X_2$  and  $X_3$  is greater than 1/2  $\beta$ , while the partial effect of  $X_1$  is less than 1/2  $\beta$ . And in Equation model 2 the partial effect of  $X_2$  is greater than 1/2  $\beta$ , while in the partial effect of  $X_1$  and  $X_2$  it is smaller and equal to 1/2  $\beta$ .

- (4) Forecasting ability. This implies that the subsequent examination model priority an exceptionally high prescient capacity on the worth of the reliant variable as demonstrated by the coefficient of assurance of the relapse model with a worth near or higher than half. The results of this study obtained the coefficient of determination is:
  - In Equation model 1, Adjusted R-square is  $90.57\% > \alpha = 50\%$ .
  - In Equation model 2, Adjusted R-square is 56.11% >  $\alpha$  = 50%.

## **CONCLUSION**

In view of information examination and speculation testing in this review it very well may be presumed that: 1). Regional Original Revenue (ROR) partially has a significant effect on the Human Development Index in the Bangka Belitung Islands Province in 2017-2021. 2). Capital Expenditure partially has a significant effect on the Human Development Index in the

Bangka Belitung Islands Province in 2017-2021. 3). Economic Growth (GDP) partially has a significant effect on the Human Development Index in the Bangka Belitung Islands Province in 2017-2021. 4). Regional Revenue (ROR), Capital Expenditures, and Economic Growth (GDP) simultaneously have a significant effect on the Human Development Index in the Bangka Belitung Islands Province in 2017-2021. 5). Regional Original Revenue (ROR) partially has a significant effect on the Poverty Level in the Bangka Belitung Islands Province in 2017-2021. 6). Capital Expenditure partially has no significant effect on the Poverty Rate in the Bangka Belitung Islands Province in 2017-2021. 7). Economic Growth (GDP) partially has a significant effect on the Poverty Rate in the Bangka Belitung Islands Province in 2017-2021. 8). (ROR), Regional Original Revenue Capital Expenditure, and Economic Growth (GDP) simultaneously have a significant effect on the Poverty Level in the Bangka Belitung Islands Province in 2017-2021.

Based on the conclusions described above, it is suggested to the Government to be able to increase the sources of Regional Original Revenue (ROR), Capital Expenditures, and Economic Growth (GDP). From the point of view of the regional government's Capital Expenditures expenditure policy,

it ought to be reexamined in light of the fact that it has not had the option to give huge government assistance to the Destitution Level in view of information examination and speculation testing in this review.

#### REFERENCES

- Abdul Halim. 2008. Akuntansi Keuangan Daerah. Edisi Ketiga. Jakarta: Salemba Empat.
- Agustien Sendouw, Vekie A. Rumate & Debby Ch. Rotinsulu. 2017. Jurnal Ekonomi Pembangunan, Pengaruh Belanja Modal, Belanja Sosial. Pertumbuhan dan Ekonomi Terhadap Tingkat Kemiskinan di Kota Manado. Fakultas Ekonomi dan Bisnis Universitas Sam Ratulangi. Manado.
- Andi Kurniawan & Devi Valeriani. 2021. Jurnal Ekonomi, Pengaruh Indeks Pembangunan Manusia dan Terhadap Pengangguran Kemiskinan di Provinsi Kepulauan Bangka Belitung. Fakultas Ekonomi Universitas Bangka Belitung. Bangka.
- Anggi Aprillia, Rulyanti Susi Wardhani & M. Faisal Akbar. 2021. Jurnal Ilmu Ekonomi Terapan, Vol. 6 (2), Analysis of Factors Affecting Poverty in The Province of The Bangka Belitung Islands. Fakultas Ekonomi Universitas Bangka Belitung. Bangka.
- Arsyad, Lincolin. 1999. Pengantar Perencanaan dan Pembangunan

- Ekonomi Daerah. BPFE. Yogyakarta.
- Asnidar. 2018. Jurnal Samudra Ekonomika, Vol. 2 (1), Pengaruh Indeks Pembangunan Manusia dan Inflasi Terhadap Pertumbuhan Ekonomi di Kabupaten Aceh Timur. Fakultas Ekonomi dan Bisnis Islam, IAIN Langsa.
- Boediono. 2019. Ekonomi Makro. Yohyakarta: BPFE
- Carunia Mulya Firdausy. 2017. Kebijakan dan Strategi Peningkatan Pendapatan Asli Daerah dalam Pembangunan Nasional. Jakarta : Yayasan Pustaka Obor Indonesia.
- Darise, N. 2008. Akuntansi Keuangan Daerah. Jakarta: PT Indeks.
- Dewi Irma Septiyani Paulus, Rosalina A.M. Koleangan & Daisy S.M. Engka. 2017. Jurnal Ekonomi Pembangunan, Analisis Pengaruh PAD, DAU dan DAK Terhadap Kemiskinan Melalui Belanja Daerah di Kota Bitung. Fakultas Ekonomi dan Bisnis Universitas Sam Ratulangi. Manado.
- Ezra Kaligis, Daisy S.M Engka dan Krest D
  Tolosang. 2017. Jurnal Berkala
  Ilmiah Efisiensi, Vol. 17 (2),
  Pengaruh Belanja Modal
  Terhadap Kemiskinan di
  Minahasa Utara melalui
  Pertumbuhan Ekonomi sebagai
  Intervening Variabel. Fakultas

- Ekonomi dan Bisnis Universitas Sam Ratulangi. Manado.
- Hoesada, Jan. 2016. Bunga Rampai Akuntansi Pemerintah. Jakarta : Salemba Empat.
- I Made Yogi Maha Putra & I Ketut Sudibia. 2020. Jurnal Ekonomi Pembangunan, Vol. 9 (10), Faktor-Faktor Yang Berpengaruh Terhadap Pertumbuhan Ekonomi dan Tingkat Kemiskinan Kabupaten/Kota di Provinsi Bali. Fakultas Ekonomi dan Bisnis Universitas Udayana (Unud), Bali.
- I Putu Herry Mahendra Putra & I Ketut Sutrisna. 2022. Jurnal Ekonomi Pembangunan, Vol. 11 (3), Pengaruh Investasi, PAD dan DAU Terhadap Pertumbuhan Ekonomi di Kabupaten/Kota Provinsi Bali. Fakultas Ekonomi dan Bisnis Universitas Udayana (Unud). Bali.
- IGN Dharma Anggada & Ni Putu Martini
  Dewi. 2022. Jurnal Ekonomi
  Pembangunan, Vol. 11 (3),
  Analisis Pengaruh PAD, Investasi
  dan Belanja Daerah Terhadap
  Tingkat Kemiskinan di
  Kabupaten/Kota Provinsi Bali.
  Fakultas Ekonomi dan Bisnis
  Universitas Udayana (Unud), Bali.
- Kaur, M., & Singh, L. 2016. "Knowledge in The Economic Growth of Developing Economies". African

- Journal of Science, Technology, Innovation and Development, 8 (2).
- Maipita, Indra. 2013. Memahami dan Mengukur Kemiskinan, Cetakan 1. Penerbit Absolute Media, Yogyakarta.
- Manholtra, Naresh. 2007. Marketing Research: An Applied Orientation, Pearson Education, Inc., Fifth Edition. New Jearsey: USA.
- Mankiw. 2014. Pengantar Ekonomi Mikro. *Principle of Economics*. Salemba Empat, Jakarta.
- Mudrajad Kuncoro. 1997. Ekonomi Pembangunan, Teori, Masalah dan Kebijakan. YKPN, Yogyakarta.
- Muhammad Dedy Palguno, Devi Valeriani & Suhartono. 2020. Jurnal Ilmu-Ilmu Sosial, Vol. 15 (2), Pengaruh Pendapatan Asli Daerah dan Belanja Modal Terhadap Pertumbuhan Ekonomi Provinsi Kepulauan Bangka Tahun 2009-2018. Belitung Fakultas Ekonomi Universitas Bangka Belitung. Bangka.
- Mulyaningsih, Yani. 2008. Pengaruh
  Pengeluaran Pemerintah di
  Sektor Publik Terhadap
  Pembangunan Manusia dan
  Pengurangan Kemiskinan.
  Jakarta: Universitas Indonesia.

- Neng Veni Suryani dan Aning Kesuma
  Putri. 2020. Holistic Journal of
  Management Research, Vol. 1
  (1), Trend Laju Pertumbuhan
  Penduduk dan Kemiskinan di
  Provinsi Kepulauan Bangka
  Belitung. Fakultas Ekonomi
  Universitas Bangka Belitung.
  Bangka.
- Rebecca Dian Aprilia Kawi & I Ketut Sudibia. 2022. Jurnal Ekonomi Pembangunan, Analisis Faktor-Faktor Yang Mempengaruhi Tingkat Pertumbuhan Ekonomi dan Kemiskinan Kabupaten/Kota di Sumatera Utara. Fakultas Ekonomi dan Bisnis Universitas Udayana (Unud), Bali.
- Rulan L. Manduapessy. 2020. Jurnal Kritis, Vol. 4 (2), Pengaruh Pendapatan Asli Daerah (PAD), Dana Perimbangan Terhadap Pertumbuhan Ekonomi Dan Kemiskinan Di Kabupaten Mimika. Fakultas Ekonomi dan Bisnis Universitas Muslim Indonesia.
- Siregar, Baldric. 2017. Akuntansi Sektor Publik (Akuntansi Keuangan Pemerintah Daerah Berbasis Akrual). Yogyakarta : UPP STIM YKPN.
- Siti Rahmawati Arifin & Fardlan. 2021. Jurnal Ekonomi & Perbankan Syariah, Pengaruh Indeks

- Pembangunan Manusia (IPM) dan Tingkat Pengangguran Terhadap Pertumbuhan Ekonomi di Provinsi Jawa Timur Tahun 2016-2018. Institut Agama Islam Negeri Madura.
- Sri Budhi, Made Kembar. 2013. Analisis
  Faktor-Faktor Yang Berpengaruh
  Terhadap Pengentasan
  Kemiskinan di Bali : Analisis FEM
  Data Panel. *Jurnal Ekonomi Kuantitatif Terapan*, [S.1.], Feb.
  2013. ISSN 2303-0186.
- Supranto, J. 2000. Teknik Sampling untuk Survei dan Eksprimen. Jakarta: Penerbit PT Rineka Cipta.
- Yovita Sari, Aja Nasrun & Aning Kesuma Putri. 2020. Jurnal Ekonomi, Vol. 8 (1), Analisis Pengaruh Indeks Pembangunan Manusia dan Kemiskinan Terhadap Pertumbuhan Ekonomi Kabupaten/Kota di Provinsi Kepulauan Bangka Belitung Tahun 2010-2017. **Fakultas** Ekonomi Universitas Bangka Belitung. Bangka.
- Yuyun Wirasasmita. 2008. Uji Kelayakan Model. Fakultas Ekonomi Universitas Padjajaran, Bandung.