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## Multiplier Effect of Incentive Policy and Ease of Investment on the Welfare of the People (Study in Bangka Belitung Islands Province During The 2010 – 2021 Period)

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**Abstract** Improving the standard of living requires active government intervention, often in the form of policies aimed at encouraging domestic and foreign capital investment. This study aims to analyze the multiplier effect of incentive and investment facilitation policies on the well-being of residents in the Bangka Belitung Islands Province. Specifically, it examines the impact of these policies on key socio-economic indicators, including the Human Development Index (HDI), regional GDP, unemployment rate, poverty rate, and income inequality. This research employs descriptive and correlational quantitative methods, utilizing a multiple linear regression model to analyze the relationship between foreign and domestic investment (independent variables) and socio-economic indicators (dependent variables). The data used were sourced from the Central Office of Public Prosperity, statistical agencies, and other relevant institutions. The findings reveal that incentive and investment facilitation policies directly increase the value of investments, which positively and significantly impacts regional GDP and the Human Development Index. Furthermore, investment growth is associated with a reduction in poverty levels and income inequality. However, increased investment does not significantly affect the unemployment rate. These results suggest that while investment policies are effective in improving several key indicators, their impact on job creation requires further consideration. These findings underscore the importance of government oversight in ensuring that investors comply with regulations, adopt labor-intensive strategies, and prioritize the use of local labor. By doing so, central and local governments can achieve both short-term and long-term development goals, fostering inclusive economic growth and reducing disparities.

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**Keywords:** multiplier effect, incentive investment well-being, welfare

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### Introduction

According to Poesoro, efforts to attract investors to improve the welfare of the people in the Republic of Indonesia have started since the New Order government until the current government. Policies implemented through Law No. 1 of 1967 concerning Foreign Investment have been able to increase economic growth by 6.7% per year in the 1968-1996 period. Entering the reform era of the SBY-JK

Government during the 2 periods 2004-2009 and 2009-2014, the value of Indonesia's Gross Domestic Product (GDP) increased between 2004-2014, from Rp. 2,303.0 trillion to reach Rp. 10,542.7 trillion. The policy of the Jokowi government era in 2014 -2019 and 2019 -2024, to increase incoming investment into Indonesia was the Manpower Creation Law. Investment priority, development of corridors along the northern route of Java Island in order to strengthen industrial development and logistics transportation connectivity, and develop initiatives to develop superhubs as centers for production, trade, technology and finance. Thus, it shows how important investment is to improve the welfare of the Indonesian people (Bontot & Wibowo, 2023)

Increasing social welfare can be measured by economic growth indicators. Economic growth is the development of activities in the economy, so that the production of goods and services increases.(Walker et al., 2021) To increase economic growth, the State's revenue and expenditure budget is not the only mainstay, so the creation of a conducive investment climate needs to be encouraged. (Qiang, 2024)The positive impact of capital investment is that it can open up new jobs, which will then be followed by increasing people's income and reducing poverty. (Ayoo, 2022) Besides that, capital investment also provides opportunities for potential economic resources to be processed into real economic power that can encourage local economic dynamics, which will ultimately lead to economic growth and increased community welfare (Sukirno, 2011).

According to Article 278 of Law Number 23 (2014) concerning Regional Government as amended by Law Number 9 of 2015 states that: (1) Regional Government Administrators involve the participation of the community and the private sector in Regional development. (2) To encourage the participation of the community and the private sector as intended in paragraph (1), Regional Government administrators can provide incentives and/or facilities to the community and/or investors as regulated in regional regulations. So that regional governments have flexibility in carrying out their activities, such as the freedom to make regulations and to adapt existing regulations at the national scope to unique regional conditions. (Rhodes et al., 2021) The success of development carried out by a country can be seen from the welfare conditions of its people.(Esping-Andersen, 2024) Community welfare is not only measured by economic growth, but there are other factors such as human resource development, social development; the problem of unemployment, poverty and income inequality, so that handling it requires the participation of the private sector. The participation of the private sector according to Maharani (Mahriza, 2019) is an investment that can mobilize resources to create production capacity/income in the future. (Bontot & Wibowo, 2023), stated that the government has tried to attract investors by means of, such as providing concessions to foreign investors to use foreign resources and workers, improving the investment climate, providing infrastructure and regulations that make things easier for investors.

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From several previous theories and research, it can be interpreted that there are positive and negative impacts in the policy of providing incentives and ease of investment.(Yee et al., 2022) With this phenomenon and based on the data presented below, the author is interested in seeing the condition of investment development, before and after the implementation of the policy of providing incentives and ease of investing in the Bangka Belitung Islands region, which can be seen in the following table:

Table 1 Development of investment and community welfare in the province Bangka Belitung Islands 2010 – 2021.

| Year | Domestic Investment (Milyar Rp) | Foreign Investment (Juta US \$) | PDRB-ADHK (Juta Rp) | IPM   | Unemployment (%) | Poverty | Income Inequality |
|------|---------------------------------|---------------------------------|---------------------|-------|------------------|---------|-------------------|
| 2010 | 0,4                             | 44,0                            | 35561904,20         | 66,02 | 5,63             | 6,51    | 0,296             |
| 2011 | 514,4                           | 194,0                           | 38013990,30         | 66,59 | 3,61             | 5,16    | 0,301             |
| 2012 | 533,5                           | 89,2                            | 40104906,10         | 67,21 | 3,49             | 5,37    | 0,294             |
| 2013 | 608,2                           | 162,4                           | 42190857,10         | 67,92 | 3,70             | 5,25    | 0,313             |
| 2014 | 615,5                           | 139,0                           | 44159439,50         | 68,27 | 5,14             | 4,97    | 0,303             |
| 2015 | 1023,7                          | 154,7                           | 45962304,00         | 69,05 | 6,29             | 5,40    | 0,283             |
| 2016 | 2202,0                          | 145,7                           | 47848371,80         | 69,55 | 2,60             | 5,22    | 0,275             |
| 2017 | 1734,7                          | 239,1                           | 49985153,70         | 69,99 | 3,78             | 5,20    | 0,282             |
| 2018 | 3112,9                          | 125,3                           | 52208035,50         | 70,67 | 3,65             | 5,52    | 0,281             |
| 2019 | 2915,2                          | 207,7                           | 53941901,70         | 71,30 | 3,62             | 4,62    | 0,269             |
| 2020 | 1863,8                          | 360,4                           | 52699208,70         | 71,47 | 5,25             | 4,89    | 0,262             |
| 2021 | 3677,4                          | 188,7                           | 55360736,60         | 71,69 | 5,03             | 4,67    | 0,256             |

*Source: BPS Bangka Belitung Islands Province, 2010-2021*

The data in table 1 shows that there has been an increase in the number of investments, both domestic and foreign, compared to before the implementation of Bangka Belitung Islands Governor Regulation Number 47 of 2019 concerning implementing regulations for providing incentives and ease of investing. The impact of the increase in investment is quite significant, but has not shown an increase in community welfare. Community welfare seen from the perspective of Gross Regional Domestic Product, Human Development Index and income inequality has increased, although not yet significantly.(Dahliah & Nur, 2021) On the other hand, community welfare from the perspective of unemployment and poverty levels has not yet shown a decline. What this research has in common with previous research is the use of quantitative methodology and there are several variables or indicators that are the same, but in this research not all variables/indicators are used together. The difference between this research and previous research is the analysis used to see the impact of policies providing incentives and ease of investing on the welfare of the people of the Bangka Belitung Islands Province using indicators of Gross Regional Domestic Product on the basis of Constant Prices, Human Development Index, Unemployment Rate, Poverty Rate and Income Inequality. This indicator is a picture of the level of social welfare of

society, socio-economic and human development. Apart from that, what differentiates this research from previous studies lies in the research location, namely in the Bangka Belitung Islands Province.

## Methods

### Basic Research Framework

The research entitled Multiplier Effect of Incentive Policy and Ease of Investment on the Welfare of the People of Bangka Belitung is located in the Bangka Belitung Islands Province, covering the period from 2010 to 2021. This study adopts a quantitative associative research approach, utilizing a multiple regression analysis model. The primary research objectives are to analyze the multiplier effects of incentive policies and investment facilitation on community welfare and to identify key factors influencing economic, human resource, and social development in the region. By employing this method, the research leverages time series data to provide measurable insights and long-term predictions about these effects. Unlike qualitative methods, which may face challenges in quantifying the multiplier effects among variables, the quantitative approach offers precise and data-driven analysis. For the research data, a 12-year quantitative time series (2010–2021) is utilized, with purposive sampling to ensure data normality and reliability. This study benefits policymakers and stakeholders by offering evidence-based recommendations for optimizing investment policies and their contribution to economic growth, human resource advancement, and social development, aiming to enhance the overall welfare of the Bangka Belitung community.

Economic development is measured by the GRDP-ADHK figure indicator, human resource development will be measured by the human development index indicator, social development will be measured by the unemployment rate, poverty rate and the level of community income inequality. Domestic investment and foreign investment data as independent variables (variables  $X_1$  and  $X_2$ ) and Data sources from the Central Statistics Agency and from other related agencies as supporting data. Statistical data analysis is used both descriptively and inferentially using data feasibility tests (classical assumption tests) and partial (t test) or simultaneous hypothesis tests (F test). The partial test is used to test whether individually the variable  $X_1$  has a significant effect on variable Y and the variable  $X_2$  has a significant effect on variable Y. The simultaneous test is used to test whether together the variables  $X_1$  and  $X_2$ . The partial test is used to test whether individually the variable  $X_1$  has a significant effect on variable Y and the variable  $X_2$  has a significant effect on variable Y. The partial parameter significance test formula (t test) is as follows:

$$t.\text{count} = b_i / S_{b_i}$$

Note:  $b_i$  = regression coefficient for variable i

$S_{b_i}$  = Standard error of variable i

significance level ( $\alpha = 5\%$ ) and df (n-k-1).

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The simultaneous test is used to test whether the variables  $X_1$  and  $X_2$  together have a significant effect on variable  $Y$ . The simultaneous test formula is as follows:

$$F = \frac{R^2 / k}{(1 - R^2) / (n - k - 1)}$$

Information:  $R^2$  = Coefficient of Determination

$k$  = number of independent variables

$n$  = number of samples

The formula for the multiple regression equation in this research is as follows:  
 $Y = a + b_1 X_1 + b_2 X_2$   
Variable  $X$  consists of: variable  $X_1$  is foreign investment and variable  $X_2$  is domestic investment. The hypotheses to be tested in this research are as follows:

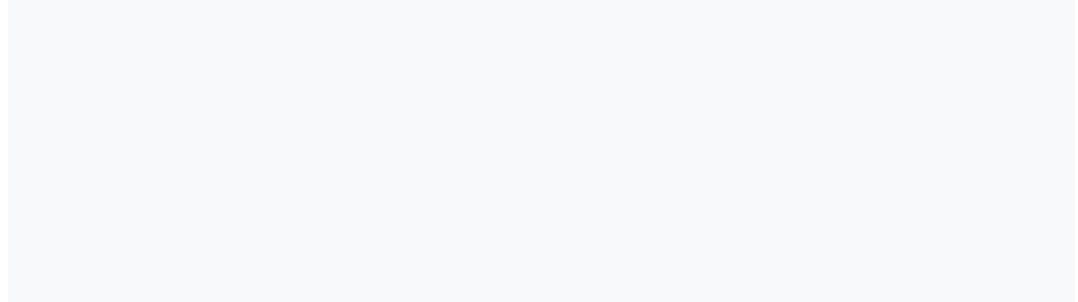
- 1) Foreign investment and domestic investment have a positive and significant effect on economic growth in the Bangka Belitung Islands Province in 2010-2021.
- 2) Foreign investment and domestic investment have a positive and significant effect on the human development index in the Bangka Belitung Islands Province in 2010-2021.
- 3) Foreign investment and domestic investment have a negative and significant effect on the unemployment rate in the Bangka Belitung Islands Province in 2010-2021.
- 4) Foreign investment and domestic investment have a negative and significant effect on the poverty level in the Bangka Belitung Islands Province in 2010-2021.
- 5) Foreign investment and domestic investment have a negative and significant effect on income inequality in the Bangka Belitung Islands Province in 2010-2021.

### Results and Discussion

#### The direct impact of the policy of providing incentives and ease of investing on investment

The development of the impact of the policy of providing incentives and ease of investing on investment value in the Bangka Belitung Islands Province is presented in the following table:

Tabel. 2: Direct Impact of Providing Incentives and Ease of Investment on Investment



| Year | Foreign Investment<br>(million US\$) | Domestic Investment<br>(billion Rupiah) |
|------|--------------------------------------|---|
| 2010 | 44,00                                | 0,40                                    |
| 2011 | 194,00                               | 514,40                                  |
| 2012 | 89,20                                | 533,50                                  |
| 2013 | 162,40                               | 608,20                                  |
| 2014 | 139,00                               | 615,50                                  |
| 2015 | 154,70                               | 1.023,70                                |
| 2016 | 145,70                               | 2.202,00                                |
| 2017 | 239,10                               | 1.734,70                                |
| 2018 | 125,30                               | 3.112,90                                |
| 2019 | 207,70                               | 2.915,20                                |
| 2020 | 360,40                               | 1.863,80                                |
| 2021 | 188,70                               | 3.677,40                                |

Source: BPS, 2010-2021 (processed)

Based on the data in table 1, it shows that there is a direct impact of the Incentive Policy and ease of investment on Investment in the Bangka Belitung Islands Province which began to be implemented at the end of 2018. The direct impact is in the form of an increase in investment value both foreign investment and domestic investment, even though seen of the investment value is not so significant. The indirect impact is for people's welfare such as welfare in the field of economic development, human resource development, social development in the Bangka Belitung Islands Province. To see how the development of economic development, human resource development, social development will be explained in the following analysis.

### Effect of Investment on Economic Growth

The description below will explain how the effect of investment on economic growth based on the SPSS output results is related to the F test, t test, multiple regression equation,

|   | Model      | Sum of Squares      | Df | Mean Square         | F      | Sig.              |
|---|------------|---------------------|----|---------------------|--------|-------------------|
| 1 | Regression | 440370617566645,600 | 2  | 220185308783322,800 | 55,999 | ,000 <sup>b</sup> |
|   | Residual   | 35387663453190,220  | 9  | 3931962605910,024   |        |                   |
|   | Total      | 475758281019835,900 | 11 |                     |        |                   |

**Dependent Variable: GRDP-ADHK, b. Predictors: Domestic Investment, Foreign Investment**

Source: Spss output

**Figure. 1 simultaneous test results**

The data in Figure 1 of the SPSS output shows that the significance value is smaller when compared to the figure of 5% or 0.000 <0.05, meaning that both domestic and foreign investment together have a significant effect on growth (GRDP-ADHK).

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| Coefficients <sup>a</sup> |                             |             |                           |        |      |
|---------------------------|-----------------------------|-------------|---------------------------|--------|------|
| Model                     | Unstandardized Coefficients |             | Standardized Coefficients | t      | Sig. |
|                           | B                           | Std. Error  | Beta                      |        |      |
| 1 (Constant)              | 35314377,872                | 1447368,036 |                           | 24,399 | ,000 |
| Foreign Investment        | 24657,676                   | 8041,574    | ,298                      | 3,066  | ,013 |
| Domestic investment       | 4452,316                    | 531,572     | ,815                      | 8,376  | ,000 |

**Dependent Variable: GRDP-ADHK**

Source: outputs spss

**Figure 2. results of the t test and the results of the regression coefficients**

The SPSS output in Figure 2 can be obtained with multiple linear regression equations, namely:  $Y = 35,314,377.872 + 24,657.676X_1 + 4,452.316X_2$ , with a regression coefficient for foreign investment of 24,657.676 and a regression coefficient for domestic investment of 4,452.316. The results of the t test for foreign investment are significant as evidenced by a significance value = 0.013 < 0.05, Likewise the results of the t test for domestic investment are significant as evidenced by a significance value = 0.000 < 0.05. So that we can state that foreign investment and domestic investment have a significant positive effect on GRDP-ADHK.

| Model Summary <sup>b</sup> |                   |          |                   |                            |
|----------------------------|-------------------|----------|-------------------|----------------------------|
| Model                      | R                 | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1                          | ,962 <sup>a</sup> | ,926     | ,909              | 1982917,70024              |

**Predictors: Domestic Investment, Foreign Investment, Dependent Variable: GRDP ADHK**

Source: spss output

**Figure 3. results of the correlation coefficient and the coefficient of determination**

Figure 3 shows that the correlation or relationship between foreign investment and domestic investment with GRDP-ADHK is very close, namely 0.96 and the magnitude of its influence on GRDP-ADHK is 90.9 percent, the remaining 9.1 percent is influenced by other factors. From the results of the study, it can be seen how the multiplier effect of incentive policies and the ease of investing in the Bangka Belitung Islands Province on GRDP-ADHK. The influence caused by the increase in investment on GRDP-ADHK is positive and significant. Judging from the regression coefficient figures, it turns out that foreign investment has a higher weight of increase to GRDP-ADHK, which is 24,657.676 million rupiahs and the regression coefficient for domestic investment is 4,452.316 million rupiah.

### Effect of Investment on the Human Development Index

How does the effect of investment on the Human Development Index based on the results of the spss output related to the F test, t test, multiple regression equations are as follows:

|   | Model      | Sum of Squares | Df | Mean Square | F      | Sig.              |
|---|------------|----------------|----|-------------|--------|-------------------|
| 1 | Regression | 38,877         | 2  | 19,439      | 55,252 | ,000 <sup>b</sup> |
|   | Residual   | 3,166          | 9  | ,352        |        |                   |
|   | Total      | 42,043         | 11 |             |        |                   |

**a. Dependent Variable: HDI, b. Predictors: (Constant), Domestic Investment, Foreign Investment**

Source: spss output

**Figure 4. simultaneous test results**

The data in Figure 4 of the SPSS output shows that the significant value is smaller when compared to the figure of 5% or 0.000 < 0.05, meaning that domestic and foreign investment together have a significant effect on the Human Development Index.

| Model               | Coefficients <sup>a</sup>   |            |                           | T       | Sig  |
|---------------------|-----------------------------|------------|---------------------------|---------|------|
|                     | Unstandardized Coefficients |            | Standardized Coefficients |         |      |
|                     | B                           | Std. Error | Beta                      |         |      |
| (Constant)          | 65,680                      | ,433       |                           | 151,704 | ,000 |
| Foreign Investment  | ,009                        | ,002       | ,354                      | 3,618   | ,006 |
| Domestic investment | ,001                        | ,000       | ,777                      | 7,937   | ,000 |

Source: spss output

**Figure 5. the results of the t test and the results of the regression coefficients**

The spss output in Figure 5 can be obtained by multiple linear regression equations, namely:  $Y = 65.68 + 0.009X_1 + 0.001X_2$ , with a regression coefficient for foreign investment of 0.009 points and a regression coefficient for domestic investment of 0.001 points. The results of the t test for foreign investment are significant as evidenced by a significance value = 0.006 < 0.05, the t test for domestic investment is significant as evidenced by a significance value = 0.000 < 0.05. So that we can state that foreign investment and domestic investment have a positive and significant effect on HDI.

| Model | Model Summary <sup>b</sup> |          |                   |                            |               |
|-------|----------------------------|----------|-------------------|----------------------------|---------------|
|       | R                          | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
| 1     | ,962 <sup>a</sup>          | ,925     | ,908              | ,59314                     | 1,821         |

**a. Predictors: (Constant), Domestic Investment, Foreign Investment, b. DV: HDI**

Source: spss output

**Figure 6. the results of the correlation coefficient and the coefficient of determination**

Figure 6. shows that the relationship between foreign investment and domestic investment with HDI is very close, namely 0.962 and the magnitude of investment influence on HDI is 90.8 percent, the remaining 9.2 percent is influenced by other factors. From the results of the study, it can be seen how the multiplier effect of incentive policies and ease of investing in the Bangka Belitung Islands Province is on HDI. The influence caused by an increase in investment on HDI is positive and significant. Judging from the regression coefficient figures, it



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turns out that foreign investment has a higher weight of increase in HDI, which is 0.009 percent and the regression coefficient for domestic investment is 0.001 percent.

**The Effect of Investment on the Unemployment Rate**

How does the effect of investment on the unemployment rate based on the SPSS output results related to the F test, t test, the multiple regression equation is as follows:

|   | Model      | Sum of Squares | Df | Mean Square | F    | Sig.              |
|---|------------|----------------|----|-------------|------|-------------------|
| 1 | Regression | ,782           | 2  | ,391        | ,279 | ,763 <sup>b</sup> |
|   | Residual   | 12,623         | 9  | 1,403       |      |                   |
|   | Total      | 13,404         | 11 |             |      |                   |

**Dependent Variable: Unemployment Rate, Predictors: Domestic Investment, Foreign Investment,**

*Source: spss output*

**Figure 7. simultaneous test results**

Data in Figure 7. The results of the F test show that the significant value is greater when compared to the figure of 5% or  $0.763 > 0.05$ , meaning that both domestic and foreign investment have an effect, but not significantly on the unemployment rate.

| Model               | Unstandardized Coefficients |            | Standardized Coefficients | T     | Sig. | Collinearity Statistics |       |
|---------------------|-----------------------------|------------|---------------------------|-------|------|-------------------------|-------|
|                     | B                           | Std. Error | Beta                      |       |      | Tolerance               | VIF   |
| 1 (Constant)        | 4,388                       | ,864       |                           | 5,076 | ,001 |                         |       |
| Foreign Investment  | ,002                        | ,005       | ,125                      | ,360  | ,727 | ,873                    | 1,145 |
| Domestic investment | ,000                        | ,000       | -,256                     | -,739 | ,479 | ,873                    | 1,145 |

**Dependent Variable: Unemployment Rate,**

*Source: spss output*

**Figure 8. t test results and regression coefficients**

The SPSS output in Figure 8 can be obtained with a multiple linear regression equation, namely:  $Y = 4.388 + 0.002X_1 + 0.000X_2$ , the regression coefficient for foreign investment is 0.002 percent while the regression coefficient for domestic investment is 0.000 percent. The results of the t test for foreign investment have a positive effect, but not significantly to the unemployment rate as evidenced by a significance value =  $0.727 > 0.05$ . Likewise with the results of the t test for domestic investment, the effect is positive, but not significant on the unemployment rate, this is evidenced by a significance value =  $0.479 > 0.05$ .

**Model Summary<sup>b</sup>**

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|-------|-------------------|----------|-------------------|----------------------------|---------------|
| 1     | ,242 <sup>a</sup> | ,058     | -,151             | 1,18428                    | 1,777         |

**Predictors: (Constant), Domestic Investment, Foreign Investment, DV = unem  
ployment rate**

*Source: spss output*

**Figure 9. results of the correlation coefficient and the coefficient of determination**

Picture. 9 shows that the relationship between foreign investment and domestic investment with the unemployment rate is not very close, namely only 0.242 and the magnitude of the effect of investment on the unemployment rate is 15.1 percent, the remaining 84.9 percent is influenced by other factors. From the research results, it can be seen how the multiplier effect of incentive policies and ease of investing in the Bangka Belitung Islands Province is on the unemployment rate. The effect caused by an increase in investment on the unemployment rate is positive, but not significant in other words that investment does not have a significant effect on the unemployment rate.

**Effect of Investment on Poverty Level**

The description below will explain how the effect of investment on the unemployment rate is based on the SPSS output results related to the F test, t test, the multiple regression equation is as follows:

**ANOVA<sup>a</sup>**

| Model        | Sum of Squares | Df | Mean Square | F     | Sig.              |
|--------------|----------------|----|-------------|-------|-------------------|
| 1 Regression | 1,521          | 2  | ,761        | 6,607 | ,017 <sup>b</sup> |
| Residual     | 1,036          | 9  | ,115        |       |                   |
| Total        | 2,557          | 11 |             |       |                   |

**Predictors: (Constant), Domestic Investment, Foreign Investment, b. DV: Poverty  
rate**

*Source: spss output*

**Figure 10. simultaneous test results**

The data in Figure 10 of the SPSS output shows that the significant value is s to the figure of 5% or 0.017 <0.05, meaning that both domestic and foreign investi significant effect on the poverty rate.

| Model               | Unstandardized Coefficients |            | Standardized Coefficients | T      | Sig. | Collinearity Statistics |       |
|---------------------|-----------------------------|------------|---------------------------|--------|------|-------------------------|-------|
|                     | B                           | Std. Error | Beta                      |        |      | Tolerance               | VIF   |
| 1 (Constant)        | 5,991                       | ,248       |                           | 24,190 | ,000 |                         |       |
| Foreign Investment  | -,003                       | ,001       | -,475                     | -2,092 | ,066 | ,873                    | 1,145 |
| Domestic investment | ,000                        | ,000       | -,462                     | -2,034 | ,072 | ,873                    | 1,145 |

**Dependent Variable: Poverty Level**

Source: spss output

**Figure 11. t test results and regression coefficients**

The spss output in Figure 11 can be obtained by multiple linear regression equations, namely:  $Y = 5.991 - 0.003 X_1 + 0.000 X_2$ , with a regression coefficient of foreign investment of -0.003 and a regression coefficient of domestic investment of 0.000. The results of the t test for foreign investment and domestic investment with a significant value greater than 0.05. So it can be concluded that foreign investment has a negative effect, but not significantly to the poverty rate, while domestic investment has a positive effect, but not significantly to the poverty rate.

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|-------|-------------------|----------|-------------------|----------------------------|---------------|
| 1     | ,771 <sup>a</sup> | ,595     | ,505              | ,33929                     | 1,679         |

a. Predictors: (Constant), Domestic Investment, Foreign Investment,

b. DV: poverty rate

Source: spss output

**Figure 12. results of the correlation coefficient and the coefficient of determination**

Figure 12 shows that the relationship between foreign investment and domestic investment with the poverty rate is close with a value of 0.771 and the magnitude of the influence of investment on the poverty rate is 50.5 percent, the remaining 49.5 percent is influenced by other factors. From the results of the study, it can be seen how is the multiplier effect of incentive policies and ease of investing in the Bangka Belitung Islands Province on poverty levels. For the short term through the results of partial hypothesis testing, foreign investment has a negative effect, but not significant to the poverty level. Meanwhile, domestic investment has not had an effect on the poverty rate, meaning that for now foreign investment is more effective in reducing the poverty rate when compared to domestic investment. For the long term, through simultaneous hypothesis testing, investment has a significant effect on the poverty rate in the Bangka Belitung Islands Province. Thus in the long run if the Provincial Government is able to increase investment, the poverty rate will decrease.

**Effect of Investment on Income Inequality**

The description below will explain how investment influences income inequality based on the SPSS output results related to the F test, t test, the multiple regression equation is as follows:

|   | Model      | Sum of Squares | Df | Mean Square | F      | Sig.              |
|---|------------|----------------|----|-------------|--------|-------------------|
| 1 | Regression | ,003           | 2  | ,002        | 11,891 | ,003 <sup>b</sup> |
|   | Residual   | ,001           | 9  | ,000        |        |                   |
|   | Total      | ,004           | 11 |             |        |                   |

**a. Predictors: (Constant), Domestic Investment, Foreign Investment, b.DV: Income Inequality**  
*Source: spss output*  
**Figure 13. simultaneous test results**

Figure 13 the SPSS output results show that the significant value is smaller when compared to the figure of 5% or 0.003 < 0.05, meaning that foreign investment and domestic investment together have a significant effect on people's income inequality.

| Model               | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. | Collinearity Statistics |       |
|---------------------|-----------------------------|------------|---------------------------|--------|------|-------------------------|-------|
|                     | B                           | Std. Error | Beta                      |        |      | Tolerance               | VIF   |
| 1 (Constant)        | ,313                        | ,008       |                           | 38,085 | ,000 |                         |       |
| Foreign Investment  | -6,514E-5                   | ,000       | -,267                     | -1,428 | ,187 | ,873                    | 1,145 |
| Domestic investment | -1,161E-5                   | ,000       | -,720                     | -3,850 | ,004 | ,873                    | 1,145 |

**Dependent variable: income inequality**  
*Source: output spss*  
**Figure 14. t test results and regression coefficient results**

The spss output in Figure 14 can be obtained by multiple linear regression equations, namely:  $Y = 0.313 - 0.000006514X_1 - 0.000001161X_2$ , with a foreign investment regression coefficient of -0.000006514 points and a domestic investment regression coefficient of -0.000001161 points. The results of the t test for foreign investment have no significant effect on income inequality, because the significance value is greater than 0.05. The results of the t test for domestic investment have a significant effect on income inequality, because the significance value is less than 0.05.

| Model Summary <sup>b</sup> |                   |          |                   |                            |               |
|----------------------------|-------------------|----------|-------------------|----------------------------|---------------|
| Model                      | R                 | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
| 1                          | ,852 <sup>a</sup> | ,725     | ,664              | ,011250                    | 1,739         |

a. Predictors: (Constant), Domestic Investment, Foreign Investment, b. DV: income inequality

Source: spss output

**Figure 15. correlation coefficient and determination coefficient**

Figure 15 shows that the correlation or relationship between investment and income inequality is very close with a value of 0.852, while the magnitude of the influence of investment on income inequality is 66.4 percent. income inequality in society. The effect caused by an increase in foreign investment on income inequality is in a negative direction, but not significant, while the effect of an increase in domestic investment on income inequality is negative and significant. From the regression coefficient figures, it turns out that foreign investment is -0.000006514 points, more effective in reducing income inequality when compared to domestic investment, which is only -0.000001161 points. In terms of the simultaneous research results, investment has a negative and significant effect on people's income inequality, meaning that an increase in investment value will be followed by a decrease in income inequality in the Bangka Belitung Islands Province.

**Discussion**

**Effect of Investment on Economic Growth**

To overcome the government's budget deficit and provide opportunities for the private sector to participate in national and regional economic development, private investment is urgently needed. Sutjipto stated that development financing from the private sector, especially foreign and domestic investment, is expected to be able to increase economic growth, so that new jobs will be available and in the long term it will be able to overcome poverty. The results of this study are supported by several previous research results, including stating that domestic investment and foreign investment have a positive effect on the Gross Regional Domestic Product (GRDP) in North Sumatra. Likewise that investment has a positive and significant effect on Regency/City GRDP in Banten Province. Likewise with research, there is a positive and significant influence between domestic investment and foreign investment on economic growth (GRDP) in West Sumatra. In Suindyah's opinion, the development of the value of foreign investment has increased, meaning that the trust from the private sector that has helped carry out development in West Sumatra has also increased.

The main idea underlying investment liberalization policies in several developing countries is that investment inflows can boost economic growth. This is because investment is a combination of share capital, knowledge, and technology and has a significant impact on economic growth. Investment can affect economic growth in the form of direct and indirect effects. Several studies have found different findings on the relationship between investment and economic growth.

### **Effect of Investment on the Human Development Index**

That investment has a significant effect on the human development index in the districts/cities of Central Java Province. Research with the same results by Domestic Investment (PMDN) has a positive and significant relationship to the Human Development Index Growth (IPM) with a coefficient of 0.002500, meaning that if PMDN rises 1% it will increase HDI growth by 0.0025%. This is the same as Ningrum's findings which stated that with an increase in PMDN, it was followed by an increase in HDI growth. The reason is that capital and profits are enjoyed domestically, while FDI benefits are enjoyed in their country of origin, causing a slow increase in people's purchasing power.

Conversely, according to the results of the study concluded that Foreign Investment (PMA) has a significant and negative effect, with a coefficient value of -0.000676, meaning that if FDI increases by 1% it will be followed by a decrease in HDI growth by -0.00067%. The findings are the same as Ana in which states that investment has a significant negative effect on the Human Development Index (IPM). This is because the need for manpower by foreign investment (PMA) comes from their own countries which are brought to Indonesia which ultimately absorbs labor in Indonesia is very minimal, so that income in Indonesia decreases and causes the HDI to decrease. Poverty and income inequality are indicators that cannot be separated from human development indicators. Experts found positive and negative influences between investment and poverty and income inequality. This shows that the problem of poverty and income inequality is a problem of human development. Evidence of the impact of investment on human development was carried out, the results found no significant impact of investment on human development.

### **The Effect of Investment on the Unemployment Rate**

This is due to the gap in investment realization in general in the capital-intensive sector. A capital-intensive system that incidentally relies on advances in advanced technology such as machinery and computers. This problem will have an impact on reduced demand for labor and increase the number of existing unemployed, due to the low education, knowledge and skills of the workforce. The results of this study are not in line with Todaro's theory, which states that with investment there will be capital accumulation in order to increase production capacity, so as to create new jobs. With the formation of new jobs, investment indirectly reduces unemployment

Research with the same results in the Districts/Cities of Central Java Province, investment has no significant effect on the unemployment rate. investment has a positive and insignificant effect on the unemployment rate in West Kalimantan, meaning that if the amount of investment increases it will not have a direct and significant impact on reducing the number of open unemployed in West Kalimantan. According to (Kharisma, 2022) investment in the form of domestic investment has an effect on unemployment on the island of Java. This means that

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increasing domestic investment will reduce the unemployment rate on the island of Java, but foreign investment will not affect the unemployment rate on the island of Java. Research conducted found that the impact of investment on employment in Tanzania was positive. In other words, investment has been able to create jobs during the 1990-2008 period. The same findings were also carried out, who wanted to know the impact of investment on workforce creation. The results found that investment had a positive impact in reducing unemployment.

### **Effect of Investment on Poverty Level**

Experts agree that reducing poverty requires a sizable amount of funds, one reliable alternative is to increase investment value. Findings in districts/cities of Central Java province, investment has a significant effect on poverty levels. Furthermore (Budiarti & Hartono, 2023), the poverty rate in Banten Province is significantly influenced by domestic investment variables, so that as domestic investment increases the poverty rate in Banten Province will decrease. The results are different from research (Sutikno, 2019) government investment does not have a significant impact on the poverty level. The same incident occurred in the Regency/City of Bali Province, investment did not affect the poverty level (Budiarti & Hartono, 2023). This means that the investment made by the government and the private sector is still not evenly distributed and does not touch the poor in every Regency/City of Bali Province.

Some researchers argue that investment is one of the most effective tools in overcoming poverty. In contrast to other researchers who disagree with the role of investment in poverty alleviation efforts except for investments that have social responsibility in poverty alleviation efforts. According to this opinion, there is no direct relationship between investment and poverty alleviation efforts. While other opinions state, there are four indirect channels that cause investment to affect poverty, namely through (1) economic growth channels, (2) employment opportunities channels, (3) wage channels, and (4) tax revenue channels.

### **Effect of Investment on Income Inequality**

The results of the study are not much different from research which states that investment is the most influential factor in income inequality between regions in the Province of the Special Region of Yogyakarta. The main cause is because high and evenly distributed investment will increase productivity, optimize natural resources and factors of production and increase income. However, in contrast to research (Amar, 2024). Investment has a positive and significant effect on income inequality in Indonesia. The regression coefficient value is 0.005498, which means that if there is an increase in investment by 1%, income inequality will increase by 0.005498%.

Investment can reduce income inequality when the benefits are pro-poor and those with the lowest incomes.(Sakamoto, 2021) Income inequality will decrease when investment employs unskilled labor such as in the agricultural sector. Investment also has a positive impact on income inequality, if investment has a positive impact on economic growth that spreads to all economic sectors.(Topuz, 2022) In addition, what



needs to be criticized is whether investment is not profitable for the poor who work in the non-formal sector. Thus, investment directed at skill-intensive sectors will not have a positive impact on income inequality. (Antonelli & Tubiana, 2023) Also, the provision of training tends to be biased in a better direction, while on the other hand efforts to provide skills are only focused on skilled workers, not the poor, argues that income inequality will shrink in developing countries. poverty can occur if it is done by helping groups of people with low education not people with higher education.

### **Conclusion**

The research highlights the significant impact of incentive policies and investment facilitation on community welfare in Bangka Belitung Islands Province, particularly in increasing the Gross Regional Domestic Product (GRDP) at constant prices and the Human Development Index (HDI), while reducing poverty and income inequality. However, the short-term impact on unemployment remains insignificant. Domestic investment shows a stronger influence on reducing inequality compared to foreign investment. Future research could focus on the long-term impacts, sector-specific analysis, the quality of jobs created, and strategies for collaboration between investors and local institutions to address unemployment, particularly among educated job seekers. Optimizing inclusive and sustainable investment policies is crucial to ensuring broader benefits for the community.

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