

## Some of the Most Influential Investment Issues in Malang, Indonesia

Priyono

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### Abstract

The purpose of this study was to find out and test whether wages affect regional investment, whether inflation affects regional investment, whether exchange rates affect regional investment, and which between wages, inflation, and exchange rates are very dominant influence on regional investment. This study uses a quantitative approach, while the object of research is all labor in Malang. And researchers took data from the Central Bureau of Statistics in the city of Malang which numbered 1,273,579 workers. The results of data analysis using multiple linear regressions with the help of SPSS version 20.0 and the discussion that has been done, all variables affect regional investment.

**Keywords:** Wages, Inflation, Exchange Rates, Investment Regions.

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### INTRODUCTION

Wages are a tangible manifestation of a form of exchange that occurs between service users and service providers. The government minimizes the minimum wage problem by formulating a minimum wage that is expected to be a reference for employers to fulfill their obligations to pay workers wages to be able to live properly from the wages they receive [1]. With the coming into effect of Law No.22 of 1999 concerning regional autonomy, the “City Minimum Wage” decision for each regency or city is directly

made by the governor on the recommendation of the regents and mayors in their respective provinces.

A significant theory to explain the state of the economy in a region, especially in Indonesia, is about the theory of wage rigidity. Wage rigidity is the failure of wages to make adjustments until the labor supply is the same as the request, Figure-1 Wage Curve and Table-1 Malang District / City Minimum Wages 2006 - 2010 (in IDR): Salvatore, Dominick and Source: BPS Malang [2, 3].

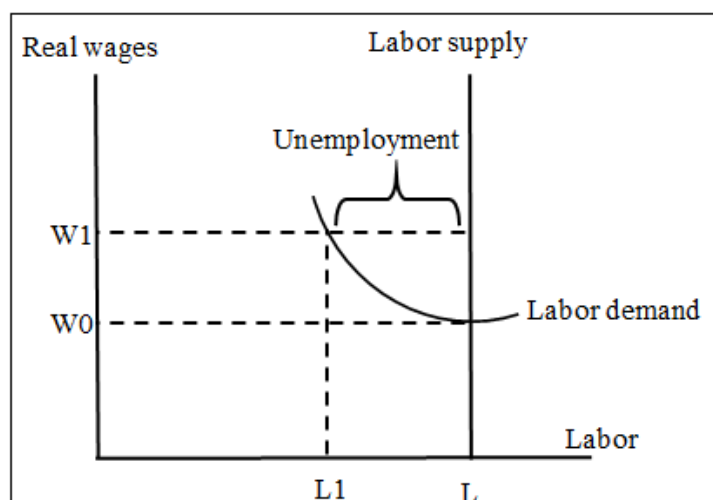


Fig-1: Wage Curve  
 Source: Salvatore, 2007

**Table-1: Malang District / City Minimum Wages 2006 - 2010 (in IDR)**

| District / City Minimum Wages |         | Year (IDR) |         |           |
|-------------------------------|---------|------------|---------|-----------|
| 2006                          | 2007    | 2008       | 2009    | 2010      |
| 681.000                       | 743.000 | 802.941    | 945.373 | 1.006.263 |

Source: BPS Malang, 2010 (processed)

Holden [4] says that the inflation rate and unemployment rate have an inverse relationship. The government is unable to control these two variables simultaneously. This is because, when the government decides to reduce the unemployment rate, unfortunately they have to face the problem of high inflation rates and vice versa. This shows a negative relationship between the inflation rate and the unemployment rate respectively. Wyplosz [5] conducted a study using data from four countries, namely France, Germany, Switzerland, and the Netherlands. He obtained a result that showed that the inflation rate in the long run was not linear to the inflation rate. He concluded that, a lower inflation rate is good for a country's economic growth. Guha and Visviki [6] according to their research using empirical methods in United States from 1949 to 1999 using CPI time series data. It was analyzed under urban or rural and statistics on the number of workers in the US as well. Based on this study, they identified that the unemployment rate has an inverse relationship to the inflation rate or the death trade. The lower the unemployment rate, the higher the inflation rate.

Linzert [7] also identified a negative relationship between the unemployment rate and the inflation rate based on his research which was carried out under 10 European countries such as Austria, Belgium, Finland, France, Germany, Ireland, Italy, the Netherlands, Portugal and Spain from 1970 to 1990. The results show that, a lower inflation rate causes a high unemployment rate and it shows an inverse relationship as well.

De Grauwe and Polan [8] state that the rate of inflation and money supply have a positive relationship. An increase in the money supply will increase the inflation rate in the long run. In his research he used data from International Financial Statistics to supply M1 and M2 money from 1969 to 1999. They found that there was a positive relationship between the money supply and the inflation rate the correlation between M1 and inflation was 0.877 where, the correlation between M2 and inflation was 0, 89. Gerry Shelley and Wallace [9] have the same point of view as De Grauwe and Polan [8] where, they also agree that inflation rates and supply money have a positive relationship with each other. Unlimited the amount of money circulating in the market will cause a high rate of inflation. In their research, they found that these variables had a high correlation in the long run between 8 and 10 years.

A study by Amadeo [10] found that inflation is a continuous increase in prices. This is a situation that

can cause the standard of living costs to fall because, we have to spend a lot of money to get the same amount of goods and services we bought before. Ming Cheng and Tan [11] state that, the inflation rate in Malaysia is well overcome in the right way during the financial crisis faced by the state compared to other countries facing high inflation during that time. Ming Cheng and Tan [11] identify that, economic inflation affects many factors and causes economic problems that can bring down the economic growth of a particular country.

Christensen [12] says that the money supply and inflation rate are direct or positive relationships in the long run. Increasing supply money on the money market will increase demand for goods and services as well. Because of this, more money chasing fewer quantities of goods and services will result in inflation problems. Alvarez *et al.*, [13] say that money supply has a positive relationship with the rate of inflation. This is because, when the Central Bank decides to increase the amount of money circulating in the market, it will no doubt reduce interest rates at the same time. So, this situation will cause the problem of inflation as supply money in the market increases indefinitely.

Ferrero and Seneca [14] identify, the central bank with a mandate to stabilize the CPI can raise interest rates to limit inflation impacting the exchange rate of depreciation. In addition, Chinese Renminbi with the US Dollar face changes in import prices affecting the exchange rate. A study conducted by Cheng and Tan [11] says that, the rate of inflation has a negative relationship with exchange rates. According to Olatunji *et al.*, [15] stated that, Exchange rates have a negative influence on the inflation rate. He analyzed the factors that influence inflation in Nigeria using time series data

Some of the empirical literature on premature multinational wages that to date, there is a consensus that foreign companies tend to pay workers better than their domestic counterparts, especially in developing countries. In an initial study for Mexico, the United States and Venezuela, Aitken *et al.*, compared average wages between domestic and foreign companies [16, 17]. They show that the average wage in foreign-owned factories tends to be around 30% higher than domestic plants.

Whereas Lipsey and Sjöholm use plant level datasets for Indonesia with detailed information on the composition of workers in all education categories [18, 19]. They found that, while the average difference in labor quality was an important part of the raw wage

premium, it remained large. Wages in foreign-owned factories are 12% higher for production workers and 20% for non-production workers. Morrissey and TeVelde [20] present similar findings for five Sub-Saharan African countries.

As one of the widely used economic indicators, the real exchange rate can be defined simply as a nominal exchange rate that brings inflation differences between countries into calculations Al-Ezzee's [21]. In international trade, its importance stems from the fact that it reflects trade competitiveness M. Heun and T. Schlink [22]. However, it is still widely used in various economic fields for purposes other than trade. The movement of real exchange rates affects many economic variables; Where several studies include relationships with MW foreign direct investment MWKlein and E. Rosengren [23], several other studies focus on the effects on tourism A. Schiff and S. Becken [24], or more generally, on economic growth Y. Miao and A. Berg [25].

In the case of Fiji, a study conducted by Dewan *et al.*, and Dewan & Hussein revealed some insight into the relationship of inflation growth [26, 27]. The found that changes in the difference between actual GDP and potential GDP (output gap) had an effect on Fiji inflation results. In another study, Dewan & Hussein [26] found in a sample of 41 developing middle-income countries including Fiji, inflation was negatively correlated with growth.

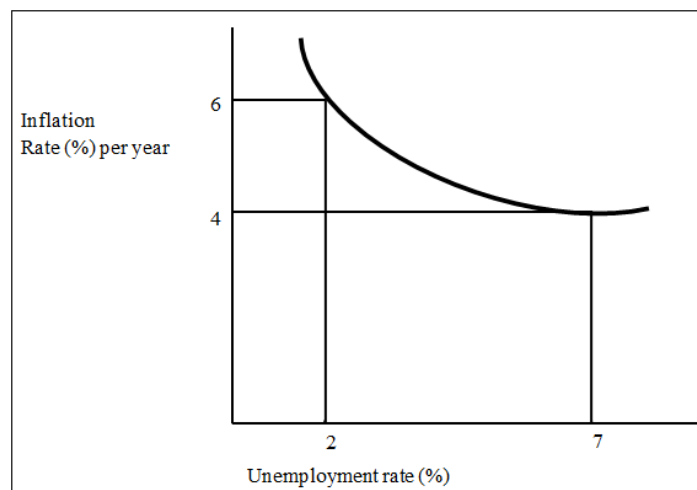
Priyono [28] states that there are two traditional annual inflation peaks in Indonesia. The January-January period always brought higher prices due to Christmas and New Year celebrations, while traditional floods in January (in the middle of the rainy season) resulted in disruption of distribution channels in several regions and cities, resulting in higher logistics costs. The second peak of inflation occurred in the July-August period. Inflationary pressure in these two months emerged as a result of the holidays, the holy

fasting month of Muslims (Ramadan), the celebration of Eid al-Fitr and the start of the new school year. Real increases can be detected in expenditures for food and other consumables (such as clothing, bags and shoes), along with retailers adjusting prices upwards.

Some empirical studies include Studies from Sarel, Andres & Hernando and Ghosh & Phillips and Khan & Senhadji [29-34]. The results of their study state that there is a weak negative correlation between inflation and growth, while changes in the output gap have a significant effect. Causality between the two variables runs one direction from GDP growth to inflation.

There is a government policy regarding the application of the Provincial Minimum Wage with the aim of increasing welfare whether it can affect the amount of investment entering the industrial sector and the trade sector. In 2015, there will be a wage increase for 2016, Malang Regency proposes that the amount of district drinking water has two versions, namely the version of laborers and employers. They gradually reduce the purchasing power of the working class. But the policy move failed because the price of goods and profits of the company were out of control. Therefore, prices are rising, unions are nervous about wage increases that result in higher prices Agba [35], Lack of goods and services produced for local consumption drives the inflation rate to rise from 20% in 1981 to 39.1% in the year 1984 [36]. With the implementation of the Structural Adjustment Program in 1986, there was a reduction in fiscal deficits while government subsidies were removed and reduced involvement in the economy.

A significant theory in explaining the causes due to inflation is the Phillips Curve, as shown below: Figure-2 Philips Curve Image and Table-2 Malang City Inflation Table 2006-2010 (in percent), Salvatore, Dominick and Source: BPS Malang [2, 3].



**Fig-2: Philips Curve Image**

Source: Salvatore, 2007

**Table-2: Malang City Inflation Table 2006-2010 (in percent)**

| Inflation |      |       | Year (percent) |      |
|-----------|------|-------|----------------|------|
| 2006      | 2007 | 2008  | 2009           | 2010 |
| 5,92      | 5,93 | 10,49 | 3,55           | 6,7  |

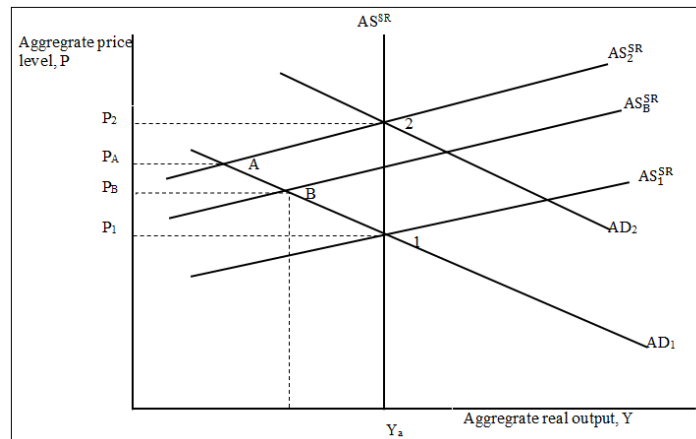
Source: BPS Malang, 2010 (processed)

Other studies have considered exchange rates as a factor in bank foreign investment decisions, but the focus in this article is whether investment is likely to generate foreign exchange gains or losses [37-39]. Relatively little attention was given to looking at assets of internationally active banks as portfolios, with sub-portfolios in various countries facing various risks and rates of return.

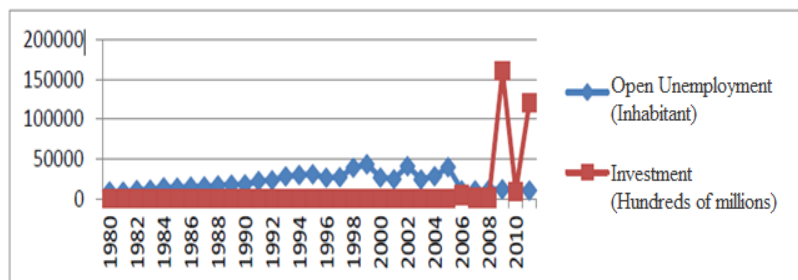
Other empirical studies by Ozturk and Kalyoncu [40] maintain the impact of FDI on economic growth in Turkey and Pakistan during the period 1975-2004 by using the Granger causality test and the Engle-Granger cointegration test. The results show that there is a positive causality relationship between FDI and economic growth that causes Turkey to experience economic growth which causes foreign investment to increase, the same thing also happened in the case of Pakistan. Baharumshah and Almasaied [41] explored the impact of foreign direct investment on economic growth in Malaysia between 1974 and 2004 including the economic crisis. From 1997. It was designed to find out the long-term relationship between FDI and

Malaysia's economic growth by using a test procedure (BT). This study found that the rate of economic growth can be influenced by FDI, the formation of domestic capital, deepening of finance and human capital.

Figure-3, describes sustainable inflation where the economy moves from Point 1 to Point 2 for each period and exchange rate inflation is built into wages and price contracts so that the short-run aggregate supply curve increases at the same level as the aggregate demand curve. Consider the announcement of a cold-Turkish anti-inflation policy in which money growth will be sufficiently reduced so that the aggregate demand for the curve will remain in AD1 and will not shift to AD2. If this anti-inflation policy is not credible, the short-term aggregate supply curve will continue to increase to ASY when the policy is implemented. The result is that the economy will move to Point A, where there is some inflation slowdown (the price level does not rise to P2), but there are substantial losses. Figure-3 Anti-Inflation Policy and Credibility and Figure-4 Development of Open Unemployment with Investment in Malang City in 1980 – 2011.



**Fig-3: Anti-Inflation Policy and Credibility**  
Source: Kydland and Prescott (1977) [33]



**Fig-4: Development of Open Unemployment with Investment in Malang City in 1980 – 2011**  
Source: Malang City Statistic Center (processed)

From Figure 3 & 4, it can be seen that the investment in Malang City from 1980 to 2011 was increasing. And if you see the number of Unemployed Unemployment increased in 1980 to 2005 while in 2006 to 2011 decreased.

The development of increased investment in the city of Malang in fact does not necessarily increase the number of jobs because in its activities this type of investment is more oriented to the type of investment that is capital intensive rather than labor intensive. Labor-intensive industries in Malang tend to be oriented towards commodities such as agriculture, plantations, textiles, cigarettes (main), and others. The problem is that this kind of industry is very vulnerable to price changes. If workers' wages are raised, this labor-intensive industry will be hard hit, unless there are those who are willing to become laborers with the lowest wages or constant raw material prices every year.

The results of the study [1] state that wages, inflation and exchange rates affect investment policies. As a theoretical basis policymakers can implement

fiscal, monetary or exchange rate policies to stabilize output and employment using interest rates, the amount of outstanding money and exchange rates as instruments.

### Formulation of the Problem

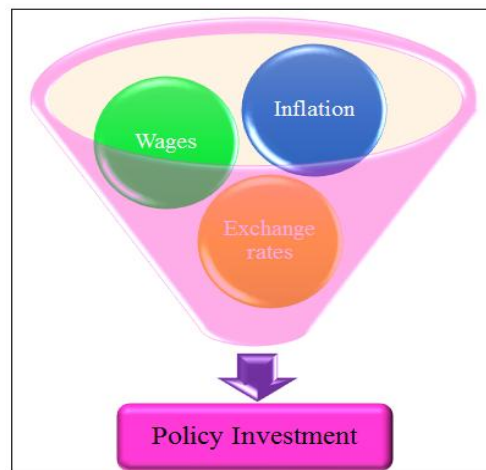
Based on the background of the above problems, the problem can be formulated as follows:

- Does the wage affect Malang's regional investment?
- Does Inflation affect Malang Regional Investment?
- Does the Exchange Rate affect Malang Regional Investment?
- Which of the most dominant wages, inflation and exchange rates affect investment?

### Conceptual Framework and Hypotheses

#### Conceptual Framework

In order for this research to be more focused with the formulation of the problem and the objectives to be achieved, the authors describe the conceptual framework as below.



**Fig-5: Conceptual Framework**

Source: Research variables processed by author

### Research Hypothesis

The research hypothesis is as follows:

- Hi 1 = There is an Influence of Wages on Investment in the Malang Region
- Hi 2 = There is Influence of Inflation on Investment in Malang Region
- Hi 3 = There is an effect of exchange rate on investment in Malang
- Hi 4 = There are Influences of Wages, Inflation and Exchange Rates on Investment in the Malang Region.

### METHOD OF RESEARCH

#### Population

In this study the population taken is the entire workforce whose data comes from the Central Bureau of Statistics in Malang which amounted to 1.273.579 workers in [42].

#### Sample

According to Arikunto, S [42], the sample is part of the number and characteristics possessed by the population with certain criteria.

Determination of the number of samples using the Slovin Formula as follows:

$$n = \frac{N}{1 + Ne^2}$$

$$n = \frac{1.273.597}{1 + 1.273.597(10\%)^2} = \frac{1.273.597}{1 + 12,736} = \frac{1.273.597}{12,737} = 99,99 \quad \text{Rounded to 100}$$

Information:

$n$ : Sample size

$N$ : Large population

$e$ : Desired level of trust / precision with a 10% confidence level.

### Appendix-1: Table of Respondent's Response Frequency

| A. Wages Variables ( $X_1$ )     |       |           |         |               |                    |
|----------------------------------|-------|-----------|---------|---------------|--------------------|
| X1.1                             |       |           |         |               |                    |
|                                  |       | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid                            | 3,00  | 21        | 21,0    | 21,0          | 21,0               |
|                                  | 4,00  | 46        | 46,0    | 46,0          | 67,0               |
|                                  | 5,00  | 33        | 33,0    | 33,0          | 100,0              |
|                                  | Total | 100       | 100,0   | 100,0         |                    |
| X1.2                             |       |           |         |               |                    |
|                                  |       | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid                            | 3,00  | 15        | 15,0    | 15,0          | 15,0               |
|                                  | 4,00  | 38        | 38,0    | 38,0          | 53,0               |
|                                  | 5,00  | 47        | 47,0    | 47,0          | 100,0              |
|                                  | Total | 100       | 100,0   | 100,0         |                    |
| X1.3                             |       |           |         |               |                    |
|                                  |       | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid                            | 2,00  | 1         | 1,0     | 1,0           | 1,0                |
|                                  | 3,00  | 14        | 14,0    | 14,0          | 15,0               |
|                                  | 4,00  | 37        | 37,0    | 37,0          | 52,0               |
|                                  | 5,00  | 48        | 48,0    | 48,0          | 100,0              |
|                                  | Total | 100       | 100,0   | 100,0         |                    |
| X1.4                             |       |           |         |               |                    |
|                                  |       | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid                            | 3,00  | 6         | 6,0     | 6,0           | 6,0                |
|                                  | 4,00  | 50        | 50,0    | 50,0          | 56,0               |
|                                  | 5,00  | 44        | 44,0    | 44,0          | 100,0              |
|                                  | Total | 100       | 100,0   | 100,0         |                    |
| A. Inflation Variables ( $X_2$ ) |       |           |         |               |                    |
| X2.1                             |       |           |         |               |                    |
|                                  |       | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid                            | 3,00  | 21        | 21,0    | 21,0          | 21,0               |
|                                  | 4,00  | 50        | 50,0    | 50,0          | 71,0               |
|                                  | 5,00  | 29        | 29,0    | 29,0          | 100,0              |
|                                  | Total | 100       | 100,0   | 100,0         |                    |
| X2.2                             |       |           |         |               |                    |
|                                  |       | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid                            | 3,00  | 19        | 19,0    | 19,0          | 19,0               |
|                                  | 4,00  | 56        | 56,0    | 56,0          | 75,0               |
|                                  | 5,00  | 25        | 25,0    | 25,0          | 100,0              |
|                                  | Total | 100       | 100,0   | 100,0         |                    |

| X2.3  |       |           |         |               |                    |
|-------|-------|-----------|---------|---------------|--------------------|
|       |       | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | 2,00  | 3         | 3,0     | 3,0           | 3,0                |
|       | 3,00  | 16        | 16,0    | 16,0          | 19,0               |
|       | 4,00  | 47        | 47,0    | 47,0          | 66,0               |
|       | 5,00  | 34        | 34,0    | 34,0          | 100,0              |
|       | Total | 100       | 100,0   | 100,0         |                    |

### Data Analysis Technique

Data analysis technique is done by analyzing directly by understanding the existing data, the analysis is also done by using computer assistance program that is SPSS 20.0.

### Testing Of Research Instruments

#### Validity test

The intrumentic validity is related to the suitability and accuracy of the function of the measuring instrument used. Therefore, before the instrument is used in the field need to test the validity of

the instrument. To test the validity can use product moment correlation technique processed using SPSS20.0

Validity test is obtained by correlating each score of the indicator variable, then the result is compared with the critical value at a significant level of 0.05. If the results obtained are smaller than *r-table*, then the items that exist in the questionnaire do not show the value of the validity and so can not be continued as a research instrument.

### Appendix-2: Test Research Instruments

| A. Validity Tests  |                     |        |        |          |
|--|---------------------|--------|--------|----------|
| Wages Variables  |                     |        |        |          |
| Correlations   |                     |        |        |          |
|  |                     | X1.1   | X1.2   | X1.Total |
| X1.1   | Pearson Correlation | 1      | ,485** | ,869**   |
|  | Sig. (2-tailed)     |        | ,000   | ,000     |
|  | N                   | 124    | 124    | 124      |
| X1.2   | Pearson Correlation | ,485** | 1      | ,854**   |
|  | Sig. (2-tailed)     | ,000   |        | ,000     |
|  | N                   | 124    | 124    | 124      |
| X1.Total   | Pearson Correlation | ,869** | ,854** | 1        |
|  | Sig. (2-tailed)     | ,000   | ,000   |          |
|  | N                   | 124    | 124    | 124      |
| **. Correlation is significant at the 0.01 level (2-tailed). |                     |        |        |          |
| Inflation Variables  |                     |        |        |          |
| Correlations   |                     |        |        |          |
|  |                     | X2.1   | X2.2   | X2.Total |
| X2.1   | Pearson Correlation | 1      | ,408** | ,814**   |
|  | Sig. (2-tailed)     |        | ,000   | ,000     |
|  | N                   | 124    | 124    | 124      |
| X2.2   | Pearson Correlation | ,408** | 1      | ,863**   |
|  | Sig. (2-tailed)     | ,000   |        | ,000     |
|  | N                   | 124    | 124    | 124      |
| X2.Total   | Pearson Correlation | ,814** | ,863** | 1        |
|  | Sig. (2-tailed)     | ,000   | ,000   |          |
|  | N                   | 124    | 124    | 124      |
| **. Correlation is significant at the 0.01 level (2-tailed). |                     |        |        |          |
| Exchange Rate Variables                                      |                     |        |        |          |
| Correlations   |                     |        |        |          |
|  |                     | X3.1   | X3.2   | X3.Total |
| X3.1   | Pearson Correlation | 1      | ,330** | ,841**   |
|  | Sig. (2-tailed)     |        | ,000   | ,000     |
|  | N                   | 124    | 124    | 124      |
| X3.2   | Pearson Correlation | ,330** | 1      | ,788**   |
|  | Sig. (2-tailed)     | ,000   |        | ,000     |
|  | N                   | 124    | 124    | 124      |

|  |                     |        |        |         |
|--|---------------------|--------|--------|---------|
| X3.Total   | Pearson Correlation | ,841** | ,788** | 1       |
|  | Sig. (2-tailed)     | ,000   | ,000   |         |
|  | N                   | 124    | 124    | 124     |
| **. Correlation is significant at the 0.01 level (2-tailed). |                     |        |        |         |
| <b>Investment Variables</b>                                  |                     |        |        |         |
| <b>Correlations</b>  |                     |        |        |         |
|  |                     | Y.1    | Y.2    | Y.Total |
| Y.1  | Pearson Correlation | 1      | ,756** | ,935**  |
|  | Sig. (2-tailed)     |        | ,000   | ,000    |
|  | N                   | 124    | 124    | 124     |
| Y.2  | Pearson Correlation | ,756** | 1      | ,939**  |
|  | Sig. (2-tailed)     | ,000   |        | ,000    |
|  | N                   | 124    | 124    | 124     |
| Y.Total  | Pearson Correlation | ,935** | ,939** | 1       |
|  | Sig. (2-tailed)     | ,000   | ,000   |         |
|  | N                   | 124    | 124    | 124     |
| **. Correlation is significant at the 0.01 level (2-tailed). |                     |        |        |         |

### Reliability Test

Reliability concerns the accuracy of measuring tools. This accuracy can be assessed by statistical analysis to determine the measurement error. The analysis used in testing instrument reliability is done by using Alpha Cronbach formula which is processed

using SPSS. The measurement item is said to be reliable if it has an alpha coefficient value greater than 0.6. Because according to Maholtra [43], a value of 0.6 or less generally indicates an unsatisfactory internal consistency reliability.

### Appendix-2: Test Research Instruments

|   |                       |            |       |
|---|-----------------------|------------|-------|
| <b>B. Reliability Tests</b>                                   |                       |            |       |
| Wages Variables   |                       |            |       |
| <b>Case Processing Summary</b>                                |                       |            |       |
|   |                       | N          | %     |
| Cases   | Valid                 | 124        | 100,0 |
|   | Excluded <sup>a</sup> | 0          | ,0    |
|   | Total                 | 124        | 100,0 |
| a. Listwise deletion based on all variables in the procedure. |                       |            |       |
| <b>Reliability Statistics</b>                                 |                       |            |       |
| Cronbach's Alpha  |                       | N of Items |       |
| ,652  |                       | 2          |       |
| <b>Inflation Variables</b>                                    |                       |            |       |
| <b>Case Processing Summary</b>                                |                       |            |       |
|   |                       | N          | %     |
| Cases   | Valid                 | 124        | 100,0 |
|   | Excluded <sup>a</sup> | 0          | ,0    |
|   | Total                 | 124        | 100,0 |
| a. Listwise deletion based on all variables in the procedure. |                       |            |       |
| <b>Reliability Statistics</b>                                 |                       |            |       |
| Cronbach's Alpha  |                       | N of Items |       |
| ,676  |                       | 2          |       |
| <b>Exchange Rate Variables</b>                                |                       |            |       |
| <b>Case Processing Summary</b>                                |                       |            |       |
|   |                       | N          | %     |
| Cases   | Valid                 | 124        | 100,0 |
|   | Excluded <sup>a</sup> | 0          | ,0    |
|   | Total                 | 124        | 100,0 |
| a. Listwise deletion based on all variables in the procedure. |                       |            |       |
| <b>Reliability Statistics</b>                                 |                       |            |       |
| Cronbach's Alpha  |                       | N of Items |       |
| ,693  |                       | 2          |       |
| <b>Investment Variables</b>                                   |                       |            |       |



| Case Processing Summary                                       |                       |            |       |
|---|-----------------------|------------|-------|
|   |                       | N          | %     |
| Cases   | Valid                 | 124        | 100,0 |
|   | Excluded <sup>a</sup> | 0          | ,0    |
|   | Total                 | 124        | 100,0 |
| a. Listwise deletion based on all variables in the procedure. |                       |            |       |
| Reliability Statistics  |                       |            |       |
| Cronbach's Alpha  |                       | N of Items |       |
| ,861  |                       | 2          |       |

**Classic Assumption Test**  
**Normality test**

Normality test is performed to test whether in a regression model, Independent and dependent Variables or both have a normal distribution or not. The best model is the normal or near-normal distribution of data.

Data normality can be detected by looking at the shape of the histogram curve with a balanced slope to the left and to the right and shaped like a bell or by looking at the dotted data points around the diagonal line and following the diagonal line from the Normal P-Plot image [44, 45].

**Appendix-3: Test of Classical Assumptions**

| A. The Test of Normality           |                |         |           |               |            |
|------------------------------------|----------------|---------|-----------|---------------|------------|
| One-Sample Kolmogorov-Smirnov Test |                |         |           |               |            |
|                                    |                | Wages   | Inflation | Exchange Rate | Investment |
| N                                  |                | 124     | 124       | 124           | 124        |
| Normal Parameters <sup>a,b</sup>   | Mean           | 7,9677  | 7,8468    | 8,1774        | 8,0323     |
|                                    | Std. Deviation | 1,22929 | 1,36176   | 1,63820       | 1,23588    |
| Most Extreme Differences           | Absolute       | ,269    | ,182      | ,239          | ,228       |
|                                    | Positive       | ,199    | ,141      | ,133          | ,228       |
|                                    | Negative       | -,269   | -,182     | -,239         | -,175      |
| Kolmogorov-Smirnov Z               |                | 2,990   | 2,025     | 2,663         | 2,541      |
| Asymp. Sig. (2-tailed)             |                | ,100    | ,101      | ,110          | ,200       |
| a. Test distribution is Normal.    |                |         |           |               |            |
| b. Calculated from data.           |                |         |           |               |            |

**Multicollinearity Test**

This test is used to test whether in a regression model found a correlation between independent variables. If there is a correlation, then it is said there is problem multicollinearity. Good regression model should not occur correlation between independent

variables. Testing for presence or absence of multicollinearity is done by *VIF* (Variance Inflation Factor) method with the following provisions:

- A. If  $VIF > 10$  there is a multicollinearity problem
- B. If  $VIF < 10$  there is no multicollinearity problem.

**Appendix-3: Test of Classical Assumptions**

| A. Multicollinearity Tests     |               |                             |            |                           |       |      |                         |       |
|--------------------------------|---------------|-----------------------------|------------|---------------------------|-------|------|-------------------------|-------|
| Coefficients <sup>a</sup>      |               |                             |            |                           |       |      |                         |       |
| Model                          |               | Unstandardized Coefficients |            | Standardized Coefficients | t     | Sig. | Collinearity Statistics |       |
|                                |               | B                           | Std. Error | Beta                      |       |      | Tolerance               | VIF   |
| 1                              | (Constant)    | 4,083                       | ,843       |                           | 4,842 | ,000 |                         |       |
|                                | Wages         | ,185                        | ,088       | ,184                      | 2,090 | ,039 | ,906                    | 1,104 |
|                                | Inflation     | ,170                        | ,084       | ,188                      | 2,035 | ,044 | ,821                    | 1,218 |
|                                | Exchange Rate | ,140                        | ,068       | ,185                      | 2,059 | ,042 | ,866                    | 1,154 |
| Dependent Variable: Investment |               |                             |            |                           |       |      |                         |       |

**Autocorrelation Test**

The autocorrelation test aims to test whether in a linear regression model there is a correlation between the confounding error in *period t* and the intruder error in *period t-1* Santoso, S [46]. Regression model is good,

there is no autocorrelation in a regression model, then tested the value of Durbin Watson test. According Santoso, S. [46] decision-making whether or not there is autocorrelation:

- A. DW value  $< 1.10$ : there is autocorrelation.

- B. DW value between 1.10 - 1.54: without conclusion.
- C. DW value between 1.55-2.46: no autocorrelation.
- D. DW value between 2.46 - 2.90: without conclusion.
- E. Value  $DW > 2.90$ : there is autocorrelation

**Heterocedasticity Test**

Heterocedasticity is a confounding variable which has a different variant from one observation to another or variants between independent variables are not the same, it violates the assumption of homocedasticityie each explanatory variable has the same (constant) variant. Heterocedasticity test can be done by Glejser test, that is by seeing the value of significance above level = 5% so it can be concluded that the regression model does not contain the existence of Heterokedastisitas Ghozali Imam [47].

**Data Analysis Using Multiple Linier Regression**

Multiple linear regression is used to test the fourth hypothesis, namely to find the effect of wages, inflation, and exchange rate on local investment policy. This analysis is used to find the functional relationship

of all predictors with the criteria. In addition, to determine the contribution of predictor variables to the criteria, both relative donations and effective contributions.

Multiple linear regression is used to determine the effect of independent variables with dependent variable, wage, inflation, and exchange rate on Central Bureau of Statisticsinvestment policy of Malang. Regression model used is:

$$Y = a + b_1X_1 + B_2X_2 + b_3X_3 + e$$

Information:

Y = Investment

a = Price constants (price Y when X = 0)

b<sub>1</sub>: Regression coefficient of wage variable

B<sub>2</sub>: Regression coefficient of Inflation Variables

b<sub>3</sub>: Regression coefficient of exchange rate variable

X<sub>1</sub> = first independent variable (Wages)

X<sub>2</sub> = second independent variable (Inflation)

X<sub>3</sub> = third independent variable (exchange rate)

e = standard error

**Appendix-4: Test Regression Linier Multiple**

| Model Summary <sup>b</sup>                                 |                   |                             |                   |                            |               |                   |                         |       |
|--|-------------------|-----------------------------|-------------------|----------------------------|---------------|-------------------|-------------------------|-------|
| Model  | R                 | R Square                    | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |                   |                         |       |
| 1  | ,401 <sup>a</sup> | ,161                        | ,140              | 1,14615                    | 1,730         |                   |                         |       |
| a. Predictors: (Constant), Exchange Rate, Wages, Inflation |                   |                             |                   |                            |               |                   |                         |       |
| b. Dependent Variable: Investment                          |                   |                             |                   |                            |               |                   |                         |       |
| ANOVA <sup>a</sup>   |                   |                             |                   |                            |               |                   |                         |       |
| Model  |                   | Sum of Squares              | Df                | Mean Square                | F             | Sig.              |                         |       |
| 1  | Regression        | 30,232                      | 3                 | 10,077                     | 7,671         | ,000 <sup>b</sup> |                         |       |
|  | Residual          | 157,639                     | 120               | 1,314                      |               |                   |                         |       |
|  | Total             | 187,871                     | 123               |                            |               |                   |                         |       |
| a. Dependent Variable: Investment                          |                   |                             |                   |                            |               |                   |                         |       |
| b. Predictors: (Constant), Exchange Rate, Wages, Inflation |                   |                             |                   |                            |               |                   |                         |       |
| Coefficients <sup>a</sup>                                  |                   |                             |                   |                            |               |                   |                         |       |
| Model  |                   | Unstandardized Coefficients |                   | Standardized Coefficients  | t             | Sig.              | Collinearity Statistics |       |
|  |                   | B                           | Std. Error        | Beta                       |               |                   | Tolerance               | VIF   |
| 1  | (Constant)        | 4,083                       | ,843              |                            | 4,842         | ,000              |                         |       |
|  | Wages             | ,185                        | ,088              | ,184                       | 2,090         | ,039              | ,906                    | 1,104 |
|  | Inflation         | ,170                        | ,084              | ,188                       | 2,035         | ,044              | ,821                    | 1,218 |
|  | Exchange Rate     | ,140                        | ,068              | ,185                       | 2,059         | ,042              | ,866                    | 1,154 |
| a. Dependent Variable: Investment                          |                   |                             |                   |                            |               |                   |                         |       |

**Hypothesis testing**

**Testing of Partial Effect Hypothesis (t-test)**

The t test is also called a test of individual significance. This t test shows how far the influence of independent variables partially to the dependent variable Ghozali, I [47]. Formulating statistical hypotheses, rules of decision:

- If the value of  $t_{count} > t_{table}$  then Ho accepted
- If the value of  $t_{count} < t_{table}$  then Ho is rejected

The rules of decision making and  $t_{test}$  using SPSS are:

- If probability > 0,05 then Ho accepted, Ha rejected
- If probability < 0.05 then Ho is rejected, Ha accepted

**Data Analysis and Discussion of Research Results Validity Test**

Validity test is to know the level of validity or truth of the instrument.

**Table-3: Validity Test**

| Variable                   |      | Correlation | Sig.  | Note  |
|----------------------------|------|-------------|-------|-------|
| <b>WAGES (X1)</b>          | X1.1 | ,783**      | 0,000 | Valid |
|                            | X1.2 | ,828**      | 0,000 | Valid |
|                            | X1.3 | ,829**      | 0,000 | Valid |
| <b>INFLATION (X2)</b>      | X2.1 | ,703**      | 0,000 | Valid |
|                            | X2.2 | ,779**      | 0,000 | Valid |
|                            | X2.3 | ,779**      | 0,000 | Valid |
| <b>EXCHANGE RATES (X3)</b> | X3.1 | ,755**      | 0,000 | Valid |
|                            | X3.2 | ,761**      | 0,000 | Valid |
|                            | X3.3 | ,643**      | 0,000 | Valid |
| <b>INVESTMENT (Y)</b>      | Y.1  | ,746**      | 0,000 | Valid |
|                            | Y.2  | ,805**      | 0,000 | Valid |
|                            | Y.3  | ,799**      | 0,000 | Valid |

Source: SPSS Output Appendix Instrument Testing, data is processed

From the Table-3, the validity test can be found after performing the calculation using SPSS version 20 program, from the results show that all items

of each statement have significant value ( $\leq 0.05$ ), so the whole item declared valid.

### Reliability Test

A questionnaire is said to be reliable or reliable if one's response to a statement is consistent or stable over time. Test reliability by using alpha cronbach

technique, said the instrument has a high reliable value if the value of alpha cronbach  $> 0.6$ . From the analysis results obtained reliability coefficient as follows:

**Table-4: Reliability Test**

| Variable             | Value alpha cronbach | Critical Value | Note     |
|----------------------|----------------------|----------------|----------|
| <b>Wages</b>         | ,742                 | 0,6            | Reliable |
| <b>Inflation</b>     | ,615                 | 0,6            | Reliable |
| <b>Exchange Rate</b> | ,539                 | 0,6            | Reliable |
| <b>Investment</b>    | ,682                 | 0,6            | Reliable |

Source: SPSS Output Appendix Instrument Testing, data is processed

In the Table-4 obtained value of coefficient reliability cronbach alpha on variable wages of 0.849, variable inflation of 0.711, exchange rate variable of 0.733 and investment variable of 0.791. Of all variables value of reliability coefficient cronbach alpha more than 0.6 it can be concluded that the instrument or questionnaire used is very reliable.

### Classic assumption test

In order to obtain an unbiased and efficient estimator value of a multiple regression equation with Ordinary Least Square method, then in the implementation of data analysis must meet the following classical assumptions:

**Table-5: Classic Assumption Test Results Table**

| Normality test          | Result  | Information                    |
|-------------------------|---|--------------------------------|
| Wage                    | <i>asyp.sig</i> = 0,104 ( $> 0,05$ )  | Normal                         |
| Inflation               | <i>asyp.sig</i> = 0.138 ( $> 0,05$ )  | Normal                         |
| Exchange rate           | <i>asyp.sig</i> = 0.100 ( $> 0,05$ )  | Normal                         |
| Investment              | <i>asyp.sig</i> = 0.118 ( $> 0,05$ )  | Normal                         |
| Multicollinearity Test  | Result  | Information                    |
| Wage                    | VIF = 1,117 ( $< 10$ )  | Free Multicollinearity         |
| Inflation               | VIF = 1,370 ( $< 10$ )  | Free Multicollinearity         |
| Exchange rate           | VIF = 1,260 ( $< 10$ )  | Free Multicollinearity         |
| Heterocedasticity Test  | Results   | Information                    |
| Scatterplot is attached | There is no clear pattern, as well as dots spread above and below the zeros on the Y axis | Not Affected Heterocedasticity |

Source: Attachment of SPSS Output Test Classical Assumption, data is processed

**Normality test**

Data normality test is used to test whether in a regression model, dependent variable, independent variable, or both have normal distribution or not, from the test results obtained asymp.sig value for wage variable equal to 0.110 (0.110 > 0.05), inflation variable equal to 0.128 (0.128 > 0.05), exchange rate variable equal to 0.101 (0.101 > 0.05) and investment variable equal to 0.130 (0.130 > 0.050). So it can be concluded that all data is normally distributed.

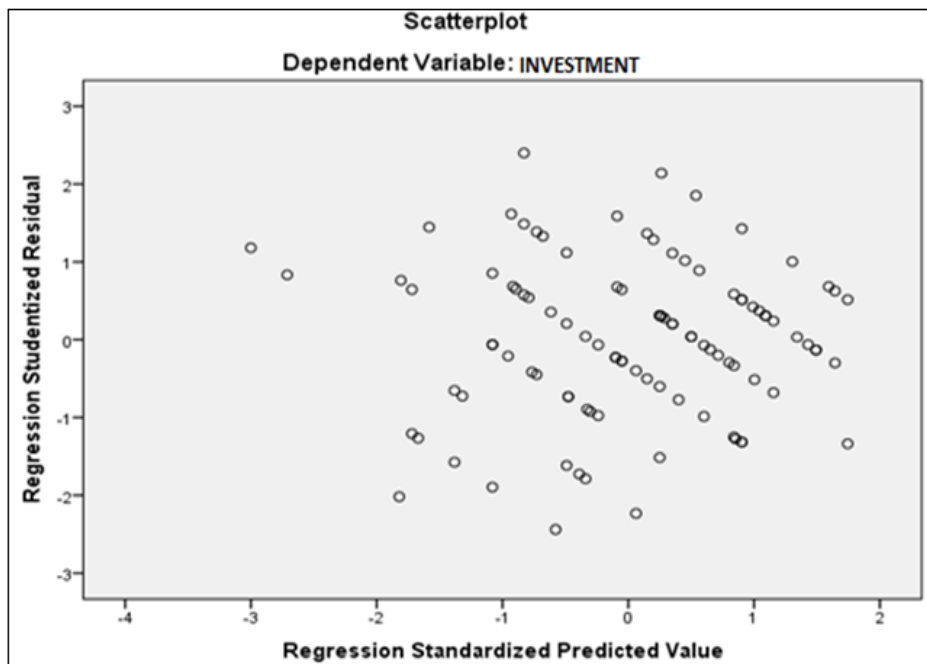
**Multicollinearity Test**

Multicollinearity test is used to test whether the regression model found a correlation between independent variables (independent). From the test

results obtained *VIF* value for the wage variable of 1.074 (1.074 < 10), the inflation variable of 1.140 (1.140 < 10) and the exchange rate variable of 1.088 (1.088 < 10), so it can be said multiple linear regression used in this study, Free from multicollinearity.

**Heteroscedasticity Test**

The heteroscedasticity test was used to test whether in the regression model there was a variance inequality of the residual one observation to the other. In the Scatterplot image below the points appear to be spreading randomly, not forming a certain pattern clearly, and scattered either above or below the number 0 on the Y axis. This means there is no heteroscedasticity in the regression model.



**Fig-6: Scatterplot Dependent Variable: Investment**

**Multiple Linear Regression Analysis and Hypothesis Testing**

From the result of multiple linear regressions analysis obtained the amount of the constant and the regression coefficient for each variable are as follows:

**Table-6: Multiple Linear Regression Analysis Table**

| Variable            | Unstandardized Coefficients (B) | Standardized Coefficients Beta | t count | Sig. | Note         |
|---------------------|---------------------------------|--------------------------------|---------|------|--------------|
| Constant            | 2,445                           |                                | 1,603   | ,112 |              |
| Wages               | ,300                            | ,243                           | 3,339   | ,001 | Significant  |
| Inflation           | ,180                            | ,161                           | 1,997   | ,049 | Significant  |
| Exchange Rates      | ,705                            | ,601                           | 7,778   | ,000 | Significant  |
| R                   |                                 |                                |         |      | = 0.739      |
| R Square            |                                 |                                |         |      | = 0.546      |
| F count             |                                 |                                |         |      | = 38,423     |
| Sig. F              |                                 |                                |         |      | = 0,000      |
| α                   |                                 |                                |         |      | = 0,5        |
| Note:               |                                 |                                |         |      |              |
| - Total of data     |                                 |                                |         |      | : 100        |
| - Dependen variable |                                 |                                |         |      | : Investment |

Source: SPSS Output Appendix Multiple Linear Regression, data is processed

From the Table-6 obtained the regression equation is:  
 $Y = 2,445 + 0,300X_1 + 0,180 X_2 + 0,705 X_3$

Based on these equations, it can be explained as follows:

#### Constant value (a) of 2,445

Shows that if the wage independent variable ( $X_1$ ), inflation ( $X_2$ ) and the exchange rate ( $X_3$ ) equal zero, then the investment (Y) will be 2,445 units. This means that without looking at wages ( $X_1$ ), inflation ( $X_2$ ) and exchange rates ( $X_3$ ), it is predicted that investment (Y) will be 2.445 units.

#### The wage coefficient value ( $X_1$ ) is 0.300

The regression coefficient with a positive sign indicates that the wage has a direct effect on investment, if the wage ( $X_1$ ) increases one unit, it will increase investment (Y) by 0.300 units with the assumption of inflation ( $X_2$ ) and the exchange rate ( $X_3$ ) constant. This means that if wages increase one unit, then the estimated investment increases by 0.300 units.

#### The value of the inflation coefficient ( $X_2$ ) is 0.180

The positive coefficient of regression indicates that inflation has a direct effect on investment, if

inflation ( $X_2$ ) increases one unit, it will increase investment (Y) by 0.180 units with the assumption of wages ( $X_1$ ) and the exchange rate ( $X_3$ ) constant. This means that if inflation increases by one unit, it is estimated that investment will increase by 0.180 units.

#### The value of the exchange rate coefficient ( $X_3$ ) is 0.705

The regression coefficient has a positive sign indicating that the exchange rate has a direct effect on investment, if the exchange rate ( $X_3$ ) increases one unit, it will increase investment (Y) by 0.705 units with the assumption of inflation ( $X_2$ ) and wages ( $X_1$ ) constant. This means that if the exchange rate increases by one unit, then the estimated investment increases by 0.300 units.

The correlation coefficient (R) describes the magnitude of the relationship between the wage variable ( $X_1$ ), inflation ( $X_2$ ) and the exchange rate ( $X_3$ ) on investment (Y). Interpretation of the level of relationship between variables X and Y can be seen from the interpretation table of the correlation coefficient in Santoso, S. [34] as follows: Table of Correlation Coefficients Interpretation

**Table-7: Table of Correlation Coefficients Interpretation**

| Correlation coefficient interval | Level of relationship |
|----------------------------------|-----------------------|
| 0,00 – 0,199                     | Very low              |
| 0,20 – 0,399                     | Low                   |
| 0,40 – 0,599                     | Medium                |
| 0,60 – 0,799                     | Strong                |
| 0,80 – 1,000                     | Very strong           |

From the table shows that the correlation coefficient (R) is 0.739 and this value if seen in Table-7 shows the level of a strong relationship. Which means that there is a strong relationship between wages ( $X_1$ ), inflation ( $X_2$ ) and exchange rates ( $X_3$ ) against investment (Y).

The determination coefficient (Rsquare) is 0.546. This figure shows that wages ( $X_1$ ), inflation ( $X_2$ ) and exchange rates ( $X_3$ ) provide variations or are able to contribute to the variable job satisfaction of 54.6%, while the remaining 45.4% is caused by other variables not included in research.

#### Hypothesis Testing

##### Hypothesis Testing 1

Testing the hypothesis that reads "There is an Influence of Wages on Investment in the Malang Region". Testing this hypothesis using the t-test, which aims to see the effect partially.

Based on the table above it can be seen the value of t arithmetic wages variable is 3.339 with a significance value of 0.001 so that ( $0.001 < 0.05$ ) from

these results it can be stated that  $H_a$  is accepted and  $H_o$  is rejected.

This test results support the previous empirical study conducted by [30, 31] Lipsey and Sjöholm [18] which uses plant level datasets for Indonesia with detailed information on the composition of workers in all education categories. They found that, while the average difference in labor quality was an important part of the raw wage premium, it remained large. Wages in foreign-owned factories are 12% higher for production workers and 20% for non-production workers. Morrissey and TeVelde [20] present similar findings for five Sub-Saharan African countries.

While the second one supports empirical studies conducted by Agba [35], which states that when prices rise, unions are nervous. As for wage increases that produce higher prices, the shortage of goods and services produced for local consumption pushed the inflation rate up from 20% in 1981 to 39.1% in 1984 [36]. With the implementation of the Structural Adjustment Program in 1986, there was a reduction in

fiscal deficits while government subsidies were removed and reduced involvement in the economy.

### Hypothesis Testing 2

Testing of the hypothesis that reads "There is an Influence of Inflation on Investment in the Malang Region". Testing this hypothesis using the t-test, which aims to see the effect partially.

Based on the above table, it can be seen that the t value of the inflation variable is 1.997 with a significance value of 0.049 so that ( $0.049 < 0.05$ ) from these results it can be stated that  $H_a$  is accepted and  $H_o$  is rejected.

The results of this test do not support the study conducted by Dewan *et al.*, [26] and Dewan & Hussein [27] reveal some insights about the relationship of inflation growth. The [26, 27] found that changes in the difference between actual GDP and potential GDP (output gap) had an effect on Fiji inflation results. In another study, Dewan & Hussein [26] found in a sample of 41 developing middle-income countries including Fiji, inflation was negatively correlated with growth.

### Hypothesis Testing 3

Testing the hypothesis that reads "There is an Exchange Rate Effect on Investment in the Malang Region". Testing this hypothesis using the t-test, which aims to see the effect partially.

Based on the table above, it can be seen that the value of the variable exchange rate is 7.778 with a significance value of 0.000 so that ( $0.000 < 0.05$ ). From these results it can be stated that  $H_a$  is accepted and  $H_o$  is rejected.

As one of the widely used economic indicators, the real exchange rate can be defined simply as a nominal exchange rate that brings inflation differences between countries into calculations Al-Ezzee's [21]. In international trade, its importance stems from the fact that it reflects trade competitiveness M. Heun and T. Schlink [22]. However, it is still widely used in various economic fields for purposes other than trade. The movement of real exchange rates affects many economic variables; Where several studies include relationships with MW foreign direct investment [23] Klein and E. Rosengren [23], several other studies have focused on the effects on tourism A. Schiff and S. Becken[44], or more generally, on economic growth Y. Miao and A. Berg [25].

### Hypothesis Testing 4

Testing the hypothesis that reads "There is an Influence of Wages, Inflation and Exchange Rates on Investment in the Malang Region". Testing this hypothesis uses the  $F_{-test}$ , which aims to see the effect simultaneously.

Based on Table-7 above it can be seen that the Fcount value is 38,423 with a significance value of 0,000 so ( $0,000 < 0,05$ ). From these results it can be stated that  $H_a$  is accepted and  $H_o$  is rejected.

The results of this test support the empirical review conducted by Aitken *et al.*, compared average wages between domestic and foreign companies [16, 17]. They show that the average wage in foreign-owned factories tends to be around 30% higher than domestic plants.

While the second was conducted by Lipsey and Sjöholm using plant level datasets for Indonesia with detailed information on the composition of workers in all education categories [18, 19]. They found that, while the average difference in labor quality was an important part of the raw wage premium, it remained large. Wages in foreign-owned factories are 12% higher for production workers and 20% for non-production workers. Morrissey and TeVelde [20] present similar findings for five Sub-Saharan African countries.

The results of this test support the empirical study conducted by Ozturk and Kalyoncu [40] to maintain the impact of FDI on economic growth in Turkey and Pakistan during the period 1975-2004 by using Granger causality test and Engle-Granger cointegration test. The results show that there is a positive causality relationship between FDI and economic growth that causes Turkey to experience economic growth which causes foreign investment to increase, the same thing also happened in the case of Pakistan. Baharumshah and Almasaied [41] explored the impact of foreign direct investment on economic growth in Malaysia between 1974 and 2004 including the economic crisis from 1997. It was designed to find out the long-term relationship between FDI and Malaysia's economic growth by using a test procedure (BT). This study found that the rate of economic growth can be influenced by FDI, the formation of domestic capital, deepening of finance and human capital.

## CONCLUSIONS AND SUGGESTION

### CONCLUSION

Based on the results of data analysis was using multiple linear regressions by SPSS program (version 20) and the discussions that have been done, then the conclusion of the research on "The effect of wages, inflation and exchange rates on investment in Malang". Which refers to the research objectives, hypotheses and analysis models are as follows:

- There is an effect of wages on investment in the city of Malang, this is evidenced by the t-test, which obtained t count the wage variable of 3.339 with a significance value of 0.001 so that ( $0.001 < 0.05$ ).
- Characteristics of the Influence of Inflation on Investment in the city of Malang, this is evidenced

by the  $t_{\text{-test}}$ , which obtained  $t_{\text{count}}$  the inflation variable of 1.997 with a significance value of 0.049 so that ( $0.049 < 0.05$ ).

- There is an effect of the exchange rate on investment in the city of Malang, this is evidenced by the  $t_{\text{-test}}$ , which obtained  $t_{\text{count}}$  variable exchange rate of 7.778 with a significance value of 0.000 so ( $0.000 < 0.05$ ).
- There is an effect of wages, inflation and exchange rates on investment in the city of Malang, this is evidenced by the  $f_{\text{-test}}$ , which obtained  $f_{\text{count}}$  of 38.442 with a significance value of 0.000 so that ( $0.000 < 0.05$ ).

## SUGGESTION

Based on the results of the research and conclusions that have been taken, the suggestions that can be submitted are as follows:

- It is expected that employees in poor cities can adjust the wages they receive with both daily and monthly expenses. So they can still invest in the form of savings or buying land or houses.
- It is expected that employees in Malang will be able to adjust the inflation rate in poor cities with their expenses. It is expected that they will continue to be able to invest despite high inflation in poor cities.
- It is expected that employees in Malang will adjust their expenses with the rise and fall of the rupiah exchange rate against the dollar or other currencies which has an impact on the high purchase price of an item. This is expected to keep employees able to invest amid the fluctuating exchange rate against the IDR

## Highlight Findings

Based on the results of calculations and test results, it can be explained that there is an effect of wages on regional investment, which is followed by the characteristics of inflation on labor which can affect the exchange rate against investment.

This illustrates for policy makers in the city of Malang, that the empirical evidence that exists in a time series can be used as a temporary theoretical basis in determining fiscal, monetary or exchange rate policies in stabilizing output and employment using interest rates, money supply and exchange rates. as an instrument

## Implications

From the previous research and theory presented above, found that the empirical evidence that exists in a series of time can be used as a temporary theoretical basis in determining fiscal, monetary or exchange rate policies to stabilize output and employment using interest rates, money supply and exchange rates.

## Practical Implications

After conducting research, policymakers can apply empirical evidence in a series of time can be used as a temporary theoretical basis in determining fiscal, monetary or exchange rate policies to stabilize output and work using interest rates, money supply and exchange rates

## Social Implications

From the results of the research of policy makers, can apply empirical evidence in a series of time as a theoretical basis when determining fiscal, monetary or exchange rate policies to stabilize output and employment by using interest rates, money supply and exchange rates in other cities

## Originality / Value

From the design of this study, originality or value of research is wages, inflation and exchange rates affect investment policies. What can be used as a theoretical basis for policy makers in applying fiscal? monetary or exchange rate policies to stabilize output and work by using interest rates, the amount of money in circulation and the exchange rate as the instrument.

## REFERENCES

1. Priyono. (2018). Effect of wage, inflation and exchange rate on the investment policy in Sidoarjo district, Indonesia. *East Asia*, 35(135), 1-26.
2. Salvatore, D. (2007). *Teori mikroekonomi*, Jakarta: PT Raja Grafindo Persada
3. BPS. (2010–2015). *Indonesia consumer price index and monthly inflation*. Retrieved from <https://bps.go.id/linkTabelStatis/view/id/907>
4. Holden, S. (2001). *Monetary policy and nominal rigidities under low inflation*. CESifo Working Paper Series No. 481. Retrieved from SSRN: <https://ssrn.com/abstract=273357>
5. Wyplosz, C. (2001). *Do we know how long inflation should be?* HEI Working Paper No: 06/2001. Graduate institute of international studies and CEPR (Mimeo). Retrieved from <http://repository.graduateinstitute.ch/record/11841/files/HEIWP06-2001.pdf>
6. Guha, D., & Visviki, D. (2001). What determines inflation in the US, job growth or unemployment? *International Journal of Forecasting*, 17(3) 447-458.
7. Linzert, T. (2003). *The Unemployment Inflation Trade-off in the Euro Area*. Department of Economics, Goethe University Frankfurt. Retrieved from [https://www.researchgate.net/profile/Tobias\\_Linzert/publication/228392971\\_The\\_UnemploymentInflation\\_Trade\\_off\\_in\\_Europe\\_A\\_Country\\_Panel\\_Study/links/0deec52d5b0c4f3943000000/The-Unemployment-Inflation-Trade-off-in-Europe-A-Country-Panel-Study.pdf](https://www.researchgate.net/profile/Tobias_Linzert/publication/228392971_The_UnemploymentInflation_Trade_off_in_Europe_A_Country_Panel_Study/links/0deec52d5b0c4f3943000000/The-Unemployment-Inflation-Trade-off-in-Europe-A-Country-Panel-Study.pdf)

8. De Grauwe, P., & Polan, M. (2005). Is inflation always and everywhere a monetary phenomenon? *The Scandinavian Journal of Economics*, 107(2), 239-259.
9. Shelley, G., & Wallace, F. (2005). The relation between U.S. money growth and inflation: evidence from a band-pass filter. *Economics Bulletin*, 5(8), 1-13. Retrieved from <https://econpapers.repec.org/article/eblecbull/e b-05e30001.htm>
10. Amadeo, K. (2018). *Obamacare act: A summary of its 10 titles*. Retrieved from <https://www.thebalance.com/obamacare-bill-3306057>
11. Cheng, M. Y., & Tan, H. B. (2002). Inflation in Malaysia. *International Journal of Social Economics*, 29(5), 411-425.
12. Christensen, M. (2001). Real supply shocks and the monetary growth- inflation relationship. *Economics Letters*, 72(1), 67-72.
13. Alvarez, F., Lucas, R. E., & Weber, W. E. (2001). Interest rates and inflation. *American Economic Review*, 91(2): 219-225.
14. Ferrero, A., & Seneca, M. (2015). *Notes on the underground: monetary policy in resource-rich economies*. Working Paper 2015/02, Norges Bank, Oslo, Norway. Retrieved from <https://www.norges-bank.no/en/Published/Papers/Working-Papers/2015/22015/>
15. Olatunji, B. O., Sawchuk, C. N., Moretz, M. W., David, B., Armstrong, T., & Ciesielski, B. G. (2010). Factor structure and psychometric properties of the Injection Phobia Scale–Anxiety. *Psychological Assessment*, 22(1), 167-179.
16. Aitken, B. J., & Harrison, A. E. (1999). Do domestic firms benefit from direct foreign investment? Evidence from Venezuela. *American Economic Review* 89(3): 605-618.
17. Aitken, B. J., Harrison, A. E., & Lipsey, R. E. (1996). Wages and foreign ownership: a comparative study of Mexico, Venezuela, and the United States. *Journal of International Economics* 40(3/4): 345-371.
18. Lipsey, R. E., & Sjöholm, F. (2004). FDI and wage spillovers in Indonesian manufacturing. *Review of World Economics*, 140(2): 321.
19. Lipsey, R. E., & Sjöholm, F. (2006). Foreign firms and Indonesian manufacturing wages: an analysis with panel data. *Economic Development and Cultural Change*, 55(1), 201-221.
20. Te Velde, D. W., & Morrissey, O. (2003). Do workers in Africa get a wage premium if employed in firms owned by foreigners? *Journal of African Economies*, 12(1), 41-73.
21. Al-Ezzee, I. (2011). *Real influences of real exchange rate and oil price changes on the growth of real GDP: Case of Bahrain*. 2011 International Conference on Management and Service Science, IPEDR, 8, 155-164. IACSIT Press, Singapore. Retrieved from <http://www.ipedr.com/vol8/29-S10046.pdf>
22. Heun, M., & Schlink, T. (2004). *Early warning systems of financial crises: Implementation of a currency crisis model for Uganda*. Working Paper Series, Frankfurt School of Finance & Management.
23. Klein, M. W., & Rosengren, E. (1994). The real exchange rate and foreign direct investment in the United States. Relative wealth vs. relative wage effects. *Journal of International Economics* 36(3-4), 373-389.
24. Schiff, A., & Becken, S. (2011). Demand elasticity estimates for New Zealand tourism. *Tourism Management*, 32(3): 564-575.
25. Berg, A., & Miao, Y. (2010). *The real exchange rate and growth revisited: The Washington consensus*. Working Paper No. 10/58. International Monetary Fund. Retrieved from <https://www.imf.org/en/Publications/WP/Issue s/2016/12/31/The-Real-Exchange-Rate-and-Growth-Revisited-The-Washington-Consensus-Strikes-Back-23684>
26. Dewan, E., & Hussein, S. (2001). *Determinants of economic growth (panel data approach)*. Working paper (Reserve Bank of Fiji. Economics Dept.); 04. Retrieved from <https://trove.nla.gov.au/version/34327349>
27. Dewan, E., Gokal, V., & Hussein, S. (2003). *Measurement of underlying inflation in Fiji*. Working paper (Reserve Bank of Fiji. Economics Dept.); 04. Retrieved from <https://trove.nla.gov.au/version/21165866>
28. Priyono. (2016). *Esensi ekonomi makro*. Zifatama publisher.
29. Andres, J., & Hernando, I. (1997). *Does inflation harm economic growth? Evidence for the OECD*, Banco de Espana-Servicio de Estudios Documento de Trabajo no 9706. Retrieved From <https://www.bde.es/f/webbde/SES/Secciones/Publicaciones/PublicacionesSeriadas/DocumentosTrabajo/97/Fic/dt9706e.pdf>
30. Ghosh, A., & Phillips, S. (1998). *Warning: Inflation may be harmful to your growth*. IMF Econ Rev, 45(4), 672.
31. Ghosh, A. R., & Philips, S. T. (1998). *Inflation, Disinflation, and Growth*. IMF Working Paper No. 98/68. Retrieved from <https://www.imf.org/en/Publications/WP/Issue s/2016/12/30/Inflation-Disinflation-and-Growth-2590>
32. Khan, M. S., & Senhadji. A. S. (2001). *Threshold effects in the relationship between inflation and growth*. IMF Staff Papers, 48(1), 1-21.



33. Kydland, F. E., & Prescott, E. C. (1977). Rules rather than discretion: The inconsistency of optimal plans. *Journal of Political Economy*, 85(3): 473-491.
34. Sarel, M. (1996). *Non-linear effects of inflation on economic growth*. IMF Econ Rev, Working Paper No. WP/95/56, 43(1): 199-215.
35. Agba, V. A. (1994). *Principle of macroeconomics*. Concept Publication Ltd, Lagos.
36. Itua, G. (2000). Structural Determinants of Inflation in Nigeria (1981-1990). *An Unpublished M. Sc. Thesis, Department of Economics, Ahmadu Bello University, Zaria*.
37. Hultman, C. W., & McGee, L. R. (1989). Factors affecting the foreign banking presence in the U.S. *Journal of Banking and Finance*, 13(3), 383-396.
38. Moshirian, F. (2001). International investment in financial services. *Journal of Banking and Finance*, 25(2), 317-337.
39. Moshirian, F., & Pham, T. (1999). Cost of capital and Australia's banking investment abroad. *Applied Financial Economics*, 9(3), 295-303.
40. Ozturk, I., & Kalyoncu, H. (2007). Foreign direct investment and growth: An empirical investigation based on cross-country comparison. *Economia Internazionale*, 60(1), 75-82.
41. Baharumshah, A. Z., & Almasaied, S. W. (2014). Foreign direct investment and economic growth in Malaysia: interactions with human capital and financial deepening. *Emerging Markets Finance and Trade*, 45(1), 90-102.
42. Arikunto, S. (1996). *Statistik untuk penelitian*. Rineka Cipta, Jakarta.
43. Maholtra, N. K. (2005). *Riset pemasaran, pendekatan terapan edisi ke-4 Jilid 1*. Jakarta: PT. Indeks Gramedia. Retrieved from <https://lib.atmajaya.ac.id/default.aspx?tabID=61&src=k&id=135047>
44. Nazir. (1988). *Metode penelitian*. Ghalia Indonesia, Jakarta.
45. Nugroho, A. (2005). *Strategi jitu memilih metode statistik penelitian dengan SPSS*, Andi Yogyakarta, Yogyakarta.
46. Santoso, S. (2009). *Mengatasi masalah statistik dengan SPSS versi 11.5*. PT. Elex media komputindo, Jakarta. 67.
47. Ghazali, I. (2006). *Aplikasi analisis multivariate dengan program SPSS*. Universitas Diponegoro, Semarang.