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The Effect of Macroeconomic Variables, Global Competition and Corruption on Private Investment in ASEAN +5 (Regional Comprehensive Economic Partnership)

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ABSTRACT: This study aims to determine and analyze the effect of macroeconomic variables, global competition and corruption on private investment in ASEAN +5 (Regional Comprehensive Economic Partnership) countries. The population in this study is Malaysia, Thailand, Singapore, China, South Korea and Australia. The research data uses data from 2007-2017. The analysis technique used is the panel data analysis method using the E–Views11.The results of the study show that (1) Interest rates have a positive and significant effect on private investment in ASEAN +5 countries. (2) Inflation has a positive and significant effect on private investment in ASEAN +5 countries. (3) The appreciation of the exchange rate has a positive and insignificant effect on private investment in ASEAN +5 countries. (4) Improvement of corruption has a positive and significant impact on private investment in ASEAN +5 countries. (5) The decline in global competition ranking (competitiveness decreases) has a negative and insignificant effect on private investment in ASEAN +5 countries.

KEYWORDS :*Panel Data, Macro Economics, Global Competition, Corruption, Private Investment*

I. INTRODUCTION

On November 15, 2020, ASEAN members signed the Regional comprehensive economic partnership (RCEP) trade agreement. RCEP is a trade pact that occurs between ASEAN countries, along with Japan, China, South Korea, Australia and New Zealand called ASEAN +5. The aims of the agreement include reducing tariffs, opening trade in services, and promoting investment to help developing countries, especially in the ASEAN region, catch up. To seize opportunities and avoid negative effects from RCEP, ASEAN +5 member countries must strengthen their economic fundamentals, one of which is investment.

Private investment in this study is represented by Gross Fixed Capital Formation By Private Sector. According to the World Bank, Gross Fixed Capital Formation By Private Sector is a private investment that includes gross expenditures by the private sector (including private non-profit institutions) in addition to its domestic fixed assets. Gross fixed capital formation (formerly gross domestic fixed investment) including land improvements (fences, ditches, waterways, etc.); purchase of plant, machinery and equipment.In this study, the authors use data from 6 ASEAN +5 member countries that are available in full from the group of high and upper–middle income countries. The six countries include Singapore, Australia, Malaysia, Thailand, China and South Korea. The data period used starts from 2007 to 2017. The completeness of the data causes the data of this study to be a balance panel.

With free trade, goods produced by China, Japan, Korea, New Zealand and Australia can freely enter other ASEAN +5 member countries. The invasion of products from other countries and the decline in private investment can become a devastating scourge for business actors in ASEAN+5 member countries who are still classified as developing countries. ASEAN +5 countries that are experiencing a decline in private investment must immediately find the causes and solutions for the decline in private investment.

The interest rate is suspected to be one of the indicators that affect private investment, [1]an increase in interest rates will result in a decrease in private investment [2]and the interest rate as a variable that affects private investment. The interest rate in this study is represented by the real interest rate. The real interest rate is the loan interest rate adjusted for inflation and in this study the GDP deflator is used.

Inflation is thought to be one of the indicators affecting private investment. [2]The inflation rate has a negative relationship with private investment. Research [1]also concludes that an increase in inflation will result in a decrease in private investment. The downward trend in the inflation rate does not affect investment made by the private sector. While the inflation rate has decreased, on the other hand private investment has also decreased. This is not in accordance with research [2]and [1].

The exchange rate variable as a determining factor in viewing private investment in Brazil [3]and [4]. The same thing was also done by [5]and [6], Agenor in [5]explained that the investment value desired by the company can be influenced by the real exchange rate. Depreciation can reduce real income and private sector wealth, thereby lowering aggregate demand. The decline in domestic income and wealth will prompt companies to revise their expectations of future demand and cause delays in their investment plans. In addition, the depreciation of the RER can increase the real cost of imported capital goods, and thus affect private investment.

In this study, the exchange rate is represented by the real effective exchange rate. The real effective exchange rate (REER) describes the value of a country's currency relative to the currencies of other countries that have been adjusted for the inflation rate in a certain year (GDP Deflator). The increase in REER value (appreciation) does not have a positive impact on private investment. The appreciation of the value of the currency should be a driving force for private investment because with the appreciation of the price of capital goods originating from imports, it is relatively cheaper than before the appreciation. Real income and private sector wealth will also have an increase due to currency appreciation so companies will accelerate their investment plans.

Several studies have found various impacts of corruption on the fields of people's lives in the economic, social, and cultural fields. In the economic field, the level of corruption is suspected to be one indicator for the private sector to invest. [7]Corruption can have a major and detrimental impact on economic growth, in large part by reducing private investment. In a study of the case of Pakistan concluded that corruption leaves a significant negative impact on private investment [8].

One of the interesting things to note is that corruption affects private investment and public investment differently [9]. Corruption has a negative impact on private investment and a positive impact on public investment. The negative impact of corruption on private investment is caused by uncertainty as well as production and transaction costs arising from corruption. Corruption becomes a tax that cannot be fully internalized by private investors. In this study, corruption is represented by the Corruption Perception Index (CPI). The corruption perception index is sourced from various global surveys and assessments from leading experts and business actors so that the corruption perception index can be used as one of the variables in the study.

According to Adam Smith (1776), competition will encourage the allocation of factors of production towards the most high-value and efficient use, a situation where increased competition leads to more investment which reduces costs [10]. For firms with low marginal costs (high efficiency), a positive effect of competition on investment is more likely to occur. The decrease in competition has resulted in a decline in investment in the American business sector since the 2000 [11]. Leaders in the American manufacturing industry are investing and innovating more in response to exogenous changes in competition against China. Positive relationship between product market competition and firm investment using a sample of Chinese manufacturing firms during 1999-2010 and finding that firms with high predation risk and firms that are industry leaders will invest more [12].

In the era of globalization with free trade, competition is becoming wider because there are no longer boundaries between regions and countries. Competition in a country does not only involve local companies but also involves multinational companies. In the face of increasingly fierce competitors, companies that have advantages such as high efficiency and market leaders tend to make more investments, especially investments that will reduce production costs. It can be concluded that in the face of competition, companies and countries will invest more in innovation to maintain excellence and control of the product market.

In this study, global competition is represented by the global competitiveness index. The global competitiveness index is an index that measures the progress of a country in the development of all the factors that affect its productivity. Implicitly, this index measures how efficiently a country utilizes its production factors which will then lead to efforts to maximize total factor productivity (TFP) and achieve long-term economic growth, so that it is beneficial for policy makers to carry out effective policy interventions.

The framework for forming the global competitiveness index can generally be categorized into 4 aspects, including an enabling environment, human capital, market aspects, and innovation ecosystem. These aspects are then detailed in the 12 pillars forming the competitiveness index. In this study, the authors take several macroeconomic factors and develop them by including aspects of competitiveness and social factors, namely corruption.

II. METHODOLOGY

This research is classified as descriptive and associative research. Descriptive aims to describe events or events, while associative research is to find out whether or not there is an influence between the independent variable and the dependent variable, where the data used is in the form of numeric data. Associative aims to see the relationship between the variables of Interest Rates, Inflation, Exchange Rates, Corruption, and Global Competition with the dependent variable, namely Private Investment. In analyzing and finding the desired solution to the problem, the technique used in this research is literature study and documentation. Where the data obtained from the documents contained in the World Bank, UNCTAD and Transparency International.

In this study, the variables consist of independent variables and dependent variables, in this study the independent variables are interest rates (X1), inflation (X2), exchange rates (X3), corruption (X4), global competition (X5), and the dependent variable is private investment (Y).

Test Requirements Analysis in this study is the Multicollinearity test, Heteroscedasticity test and normality test. To determine the presence or absence of multicollinearity, the VIF (Variance Inflation Factor) method is used [13]. Heteroscedasticity testing was carried out using the Breusch Pagan Godfrey (BPG) test. Meanwhile, the normality test was carried out using the formula developed by the Jarque-Bera test.

Hypothesis testing is done by using panel data regression. Panel data regression is a regression analysis that uses panel data to observe the effect of one or more independent variables on the dependent variable (dependent variable)[13]. Panel data regression analysis in this study was conducted to examine the effect of interest rates, inflation, exchange rates, global competition and corruption on private investment. Statistics on the Selection of Panel Data Regression Models, including using the Chow Test.

Chow test is a test to determine the most appropriate fixed effect or Common Effect model used in estimating panel data. Hausman Test is a test used to determine the best method between fixed effects or random effects or the test used to choose the best model, whether fixed effect model (FEM) or random effect model (REM). To find out whether the Random Effect model is better than the Common Effect (OLS) method, the Lagrange Multiplier (LM) test is used. This Random Effect significance test was developed by Breusch Pagan. The Bruesch Pagan method to test the significance of the Random Effect is based on the residual value of the Common Effect method.

Hypothesis Test using F-Test. The F-test is used to test the regression coefficient (slope) hypothesis as a whole/simultaneously. The F-test shows the influence of the independent variables on the dependent variable together. After testing the overall regression coefficient, the next step is to partially test the regression coefficient using the t-test.

III. RESULT

1. Chow Test

Chow test is a test to determine between the Commont Effect Model or the Fixed Effect Model which is more appropriate to use in estimating panel data. The hypothesis in the Chow test is as follows. If the test results determine the CEM model, it is necessary to perform the Lagrange Multiplier Test (LM-Test) to determine between CEM and REM. However, if the results of the Chow test determine which FEM to use, it is necessary to carry out further tests, namely the Hausman test to determine between FEM and REM.

Table 1 Chow Test Results

Redundant Fixed Effects Tests

Equation: MODEL_FEM
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	188.422711	(5,55)	0.0000
Cross-section Chi-square	191.237077	5	0.0000

Source: Eviews 2021 processed data

The results in table 1 show the probability of a chi-square cross-section of 0.0000 lower than 0.05. So according to the decision criteria, this model uses FEM. Because the selected Chow test uses the FEM model, it is necessary to carry out further testing with the Hausman test to determine which FEM or REM is used.

2. Hausman Test

The choice of using the Fixed Effect Model or the Random Effect Model can be determined from the following Hausman test results:

Table 2 HausmanUji Test Results

Correlated Random Effects - Hausman Test
Equation: MODEL_REM
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	942.113553	5	0.0000

Source: Eviews 2021 processed data

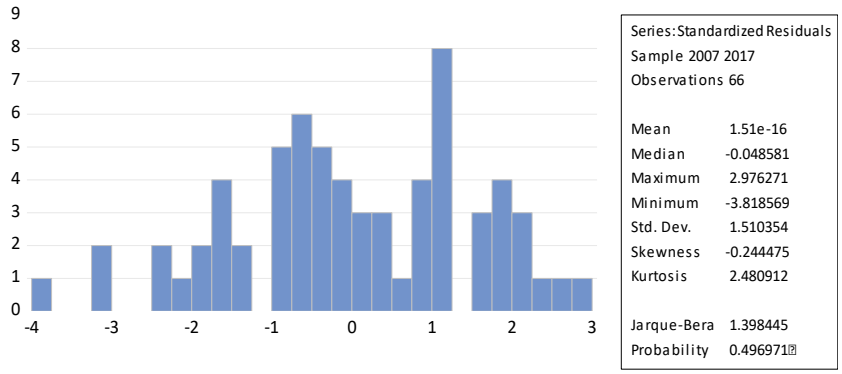
To determine the results of the Hausman test is to assess the probability cross-section, if <0.05 then the model used is FEM, but if the probability> 0.05 then the model used is REM. The results of table 2 show the random cross-section probability value of 0.0000 which is lower than 0.05, meaning that the Hausman test results chose to use the Fixed Effect Model.Based on the results of the panel data model selection, to perform panel data regression test using the Fixed Effect Model in determining the results of this study.

3. Classical Assumption Test

a. Normality test

The normality test aims to test whether the regression model of the dependent variable and the independent variable is normally distributed or not. A good model is a model that has a normal data distribution. Test this by looking at the jarque-fall probability as follows:

Figure 1 Normality Test Results



Source: Eviews 2021 processed data

In Figure 1, it can be seen that the jarque fallow value is 1.398445 with a probability value of 0.496971. So it can be concluded that the model in this study is normally distributed, because the probability value of 0.496971 is greater than 0.05.

b. Multicollinearity Test

This test is useful to determine whether the regression model found a correlation between the independent variables. [13] If the correlation coefficient between independent variables > 0.8, it can be concluded that the model has multicollinearity problems. On the other hand, the correlation coefficient < 0.8 means the model is free from multicollinearity.

Table 3 Multicollinearity Test Results

	SBP	INF	REER	KRP	DSG
SBP	1.000000	-0.283253	-0.051726	0.300266	-0.245783
INF	-0.283253	1.000000	-0.040291	0.013653	-0.026296
REER	-0.051726	-0.040291	1.000000	-0.287722	0.316057
KRP	0.300266	0.013653	-0.287722	1.000000	-0.832148
DSG	-0.245783	-0.026296	0.316057	-0.832148	1.000000

Source: Eviews 2021 processed data

Based on the results in table 3, it can be seen that none of the correlations between independent variables has a value of more than 0.8. This means that in this regression model there is no multicollinearity or in this model there is no correlation between independent variables.

c. Heteroscedasticity Test

The heteroscedasticity test aims to test whether in the regression model there is an inequality of variance from the residuals of one observation to another observation. If the variance from the residual of one observation to another observation remains, it is called homoscedasticity and if the variance is not constant or changes it is called heteroscedasticity. This test was carried out using the Breusch Pagan Godfrey (BPG) test.

Table 4 Heteroscedasticity Test Results

Heteroskedasticity Test: Breusch-Pagan-Godfrey
Null hypothesis: Homoskedasticity

F-statistic	6.861189	Prob. F(5,60)	0.0000
Obs*R-squared	24.00901	Prob. Chi-Square(5)	0.0002

Source: Eviews 2021 processed data

In table 4 it can be seen that the probability chi-square value of Obs*R-square is 0.0002 which is smaller than 0.05. So it can be concluded that in this model there is heteroscedasticity. The existence of heteroscedasticity symptoms causes the estimation to be carried out using the fixed effect GLS method with weight/cross-section SUR to overcome the violation of this assumption. Weighting is used when there are symptoms of heteroscedasticity without autocorrelation. Meanwhile, the weighting (seemingly unrelated regressions) of SUR is carried out when heteroscedasticity and autocorrelation occur.

Table 5 Autocorrelation Test Results

Breusch-Godfrey Serial Correlation LM Test:
Null hypothesis: No serial correlation at up to 2 lags

F-statistic	89.16650	Prob. F(2,58)	0.0000

In table 5 it can be seen that the probabilityF value of 0.0000 is smaller than 0.05. So it can be concluded that in this model there is an autocorrelation. With the occurrence of heteroscedasticity and autocorrelation symptoms, to overcome the violation of these assumptions, SUR weighting (seemingly unrelated regressions) is used. Creel (1996) in his research states that "The seemingly unrelated regressions

(SUR) estimator is a natural alternative to OLS. The SUR estimator can be substantially more efficient than OLS".

4. Panel Data Regression Analysis

Table 6 Panel Data Regression Results

Fixed Effect Model (FEM) With SUR Weighting (seemingly unrelated regressions)
Dependent Variable: INVT
Method: Panel EGLS (Cross-section SUR)
Date: 04/30/21 Time: 22:54
Sample: 2007 2017
Periods included: 11
Cross-sections included: 6
Total panel (balanced) observations: 66
Linear estimation after one-step weighting matrix

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	15.25709	1.940306	7.863235	0.0000
SBP	0.192277	0.033293	5.775306	0.0000
INF	0.173865	0.042583	4.082999	0.0001
REER	0.014195	0.007374	1.925045	0.0594
KRP	0.105063	0.029282	3.587934	0.0007
DSG	-0.019714	0.013762	-1.432564	0.1576

Source: Eviews 2021 processed data

Based on table 6, the results of the panel data regression equation using the Eviews 11 program are as follows:

$Y_{it}=\beta_0+\beta_1X_{1it}+\beta_2X_{2it}+\beta_3X_{3it}+\beta_4X_{4it}+\beta_5X_{5it}U_i$……………………………………………………(1)

$Y_{it}=15,25+0,192X_{1it}+0,137X_{2it}+0,014X_{3it}+0,105X_{4it}-0,019X_{5it}U_i$…………………………(2)

The constant (β_0) obtained is 15.25. This means that if interest rates (X1), inflation (X2), exchange rates (X3), corruption (X4) and global competition (X5) are fixed, private investment in ASEAN +5 countries is a surplus of 15.25%. Interest rates (X1) have a positive effect on private investment (Y) in ASEAN countries +5 with a regression coefficient of 0.192. This means that when there is a 1% increase in interest rates (X1) it will increase private investment (Y) in ASEAN +5 countries by 0.192%.Inflation (X2) has a positive effect on private investment (Y) in ASEAN countries +5 with a regression coefficient of 0.173. This means that when there is a 1% increase in inflation (X2) it will increase private investment (Y) in ASEAN +5 countries by 0.173%.

The exchange rate (X3) has a positive effect on private investment (Y) in ASEAN countries +5 with a regression coefficient of 0.014. This means that when there is an increase (appreciation) of 1% in the exchange rate (X3), it will increase private investment (Y) in ASEAN +5 countries by 0.014%.Corruption (X4) has a positive effect on private investment (Y) in ASEAN countries +5 with a regression coefficient of 0.105. This means that when there is an increase (improvement) of 1% in corruption (X4), it will increase private investment (Y) in ASEAN countries +5 by 0.105%.Global competition (X5) has a negative effect on private investment (Y) in ASEAN countries +5 with a regression coefficient of -0.019. This means that when there is an increase (in fact is a decrease in level) of 1% in global competition (X5), it will reduce private investment (Y) in ASEAN +5 countries by 0.019%.

5. Hypothesis Testing

a. F-test

The F test is used to determine the effect of interest rates (X1), inflation (X2), exchange rates (X3), corruption (X4), and global competition (X5) together on private investment (Y) in ASEAN +5 countries. The joint hypothesis study was carried out using the F-test which can be seen from the probability value of the F-statistic to determine the effect of the independent variables together on the dependent variable.

Table 7 F Test Results Fixed Effect Model

Dependent Variable: INVT
Method: Panel EGLS (Cross-section SUR)
Date: 04/30/21 Time: 22:54
Sample: 2007 2017
Periods included: 11
Cross-sections included: 6
Total panel (balanced) observations: 66
Linear estimation after one-step weighting matrix

Sum squared resid	63.26474	F-statistic	215.5715
Durbin-Watson stat	1.361959	Prob(F-statistic)	0.000000

Source: Eviews 2021 processed data

Based on the estimated panel data in table 7, it can be seen that the Prob value (F-statistic) is 0.0000. When compared with the value of = 0.05, the value of Prob (F-statistics) <0.05. Based on this, it can be concluded that Ho is rejected and Ha is accepted, meaning that together Interest rates (X1), Inflation (X2), Exchange rates (X3), Corruption (X4), and Global competition (X5) together the same for private investment (Y) in ASEAN countries +5.

b. T Test

The t-test is used to see the magnitude of the effect of the independent variable partially on the dependent variable. To determine the effect of the independent variable partially on the dependent variable, it can be seen through the probability of each independent variable at the level of = 0.05.

Based on the results of panel data estimation, the regression coefficient of the interest rate variable (X1) has a positive sign of 0.192 with a probability of 0.0000 which is small from = 0.05. Based on this, Ho is rejected and Ha is accepted, so that the alternative hypothesis proposed in this study can be accepted. This means that there is a significant influence between interest rates (X1) on private investment (Y) in ASEAN countries +5 with the assumption of cateris paribus.

Based on the results of the panel data estimation in table 7, the regression coefficient of the inflation variable (X2), has a positive sign of 0.173 with a probability of 0.0001 which is smaller than = 0.05. Based on this, Ho is rejected and Ha is accepted, so that the alternative hypothesis proposed in this study can be accepted. This means that there is a significant influence between Inflation (X2) on private investment (Y) in ASEAN countries +5 with the assumption of cateris paribus.

Based on the results of the panel data estimation in table 7, the regression coefficient of the exchange rate variable (X3), has a positive sign of 0.014 with a probability of 0.059 which is greater than = 0.05. Based on this, Ho is accepted and Ha is rejected, so that the alternative hypothesis proposed in this study is rejected. This means that there is no significant effect between the real effective exchange rate (X3), on private investment (Y) in ASEAN countries +5 with the assumption of cateris paribus.

Based on the results of the panel data estimation in table 7, the regression coefficient of the Corruption variable (X4), has a positive sign of 0.105 with a probability of 0.0007 which is small from = 0.05. Based on this, Ho is rejected and Ha is accepted, so that the alternative hypothesis proposed in this study can be accepted. This means that there is a significant influence between corruption (X4) on private investment (Y) in ASEAN countries +5 with the assumption of cateris paribus.

Based on the results of the panel data estimation in table 7, the regression coefficient for the global competition variable (X5) has a negative sign, namely -0.019 with a probability of 0.157 which is greater than = 0.05. Based on this, Ho is accepted and Ha is rejected, so that the alternative hypothesis proposed in this study is rejected. This means that there is no significant effect between global competition (X5) on private investment (Y) in ASEAN countries +5 with the assumption of cateris paribus.

c. Coefficient of Determination (R^2)

The determinant coefficient (R^2) is used to see or find out the contribution of the independent variable in explaining the dependent variable. If R^2 = 0 or close to zero, then there is no influence between the independent variables on the dependent variable. Vice versa, if R^2 = 1 or close to one, then there is a significant effect between the independent variables on the dependent variable.

Table 8 Results of R^2 Fixed Effect Model

Dependent Variable: INVT
Method: Panel EGLS (Cross-section SUR)
Date: 04/30/21 Time: 22:54
Sample: 2007 2017
Periods included: 11
Cross-sections included: 6
Total panel (balanced) observations: 66
Linear estimation after one-step weighting matrix

Root MSE	0.979059	R-squared	0.975121
Mean dependent var	51.36758	Adjusted R-squared	0.970598

Source: Eviews 2021 processed data

Based on the results of the panel regression in table 8, the R2 value of 0.970 is obtained. This means that private investment (Y) in ASEAN +5 countries can be explained by the five independent variables used, namely interest rates (X1), inflation (X2), exchange rates (X3), corruption (X4) and global competition (X5).) with a contribution of 97.0%, while the remaining 3% is explained by other variables outside the model.

Thus, in general the model used can be said to be good enough to explain the effect of interest rates (X1), inflation (X2), exchange rates (X3), corruption (X4), and global competition (X5) on private investment (Y) in ASEAN countries +5.

IV. DISCUSSION

1. The Effect Of Interest Rates On Private Investment In ASEAN Countries +5

Based on the results of the hypothesis test in this study, it is known that interest rates have a positive and significant effect on private investment conditions.This result contradicts the neo-classical theory of the cost of capital use but complements Mckinnon and Shaw's hypothesis. [14][15]Formulate the importance of depth finance and high interest rates as a driver of economic growth. The real interest rate will have a positive effect on investment because an increase in interest rates will lead to an increase in the volume of savings resulting in the availability of financial sector funds which will be converted into investment by the private sector through financing schemes.

The positive and significant effect of interest rates confirms research that examines the determinants of private investment in Nigeria from 1970-2010. The results of this study indicate that long-term interest rates have a positive effect on Nigerian private investment [16],

[6]Research on private investment in Vietnam also suggests that private investment is positively influenced by interest rates. The effect of positive interest rates on private investment is also about the determinants of long-term private investment in Brazil using cross-sections and montecarlo simulations [3]. from within the country, do not seek financing from abroad.

Another thing that can be considered is the profit factor that will be obtained by the private sector in making investments. As long as profits are still relatively higher than the cost of capital, the private sector will not have a problem with high interest rates.

2. The Effect Of Inflation On Private Investment In ASEAN Countries +5

Based on the results of the hypothesis test in this study, it is known that inflation has a positive and significant effect on the condition of private investment. This shows that any increase in inflation that occurs in ASEAN +5 countries will have an impact on increasing private investment.A positive sign of investment is the rejection of the economic postulate which states that private investment thrives in low and stable inflation. What is reasonable from this research is that the price increase that occurred in ASEAN +5 countries is seen as an

opportunity by the private sector in achieving maximum profit. The price increase is directly proportional to the profit earned by the company so that the private sector will invest to increase production. This is in line with research that examines the long-term model of factors that affect private investment in Nigeria, the effect of inflation on private investment in this study is positive and significant [16].

Furthermore, research [17] with the title The determinants of private sector investment in Ghana: An ARDL approach states that the short-term inflation coefficient is positive and significant, consistent with long-term findings. The results show that if inflation rises by 1%, private investors will respond by increasing investment by 1.48 percent. Thus, the short-term and long-term results suggest that inflation has been a stimulant to private investment rather than a deterrent.

3. Effect Of Exchange Rate On Private Investment In ASEAN Countries +5

Based on the results of the hypothesis test in this study, it is known that the real effective exchange rate has a positive and insignificant effect on the condition of private investment. The positive coefficient in this study states that when there is a currency appreciation in ASEAN countries +5 will increase private investment, although statistically the effect is not significant.

The appreciation will increase real income and private sector wealth. The increase in domestic income and wealth will encourage the private sector to expand its business which will encourage investment. The appreciation of the currency will also reduce the real cost of imported capital goods which will have a positive effect on private investment.

[1]The exchange rate which has an insignificant effect can be found in previous research that examines investment in Latin America and explores the relationship of investment to growth, exchange rates, and terms of trade. Using panel data regression for the period 1970-1985 in Argentina, Brazil, Chile, Colombia, Mexico and Venezuela. The results of this study explain that the real exchange rate does not have a significant role in determining private investment. The real exchange rate effect is very small and statistically insignificant to private investment[6].

4. Effect Of Corruption On Private Investment In ASEAN Countries +5

Based on the results of the hypothesis test in this study, it is known that the corruption index in ASEAN +5 countries will have a positive and significant effect on the condition of private investment. In this study, an increase in the corruption index of a country is seen as an indication of an improvement in the condition of corruption in that country, so this result can be interpreted as corrupt practices have a negative and significant impact on private investment. Worsening corruption will be a limiting factor for the private sector to invest.

The negative and significant effect of corruption confirms previous research on corruption and development by exploring investment channels in African countries [9]. The results confirm that corruption discourages private investment, indicating that corruption increases the cost of running a business while increasing uncertainty over the expected return on capital.

The results of this study are also in accordance with research on the effect of corruption on growth, investment, and government spending [7]. This study has analyzed a number of causes and consequences of corruption. It also provides further evidence that corruption can have a large and detrimental impact on economic growth, largely by reducing private investment.

5. Effect Of Global Competition On Private Investment In ASEAN Countries +5

Based on the results of the hypothesis test in this study, it is known that the global competitiveness index of ASEAN countries +5 has a negative and insignificant effect on the condition of private investment. The negative coefficient in this study states that when there is an increase in the global competitiveness index (a decrease in the level of global competition) ASEAN +5 countries will result in a decrease in private investment, although the effect is not statistically significant.

"A simple two-stage model in which there is a U-shaped relationship between competition and investment. This study states that in the first stage treatment, it is estimated that increased competition results in higher investment although the effect is not always significant"[18].

V. CONCLUSION

Based on the results of data processing with panel regression analysis, a discussion of the results of research between interest rates, inflation, exchange rates, corruption and global competition for private

investment in ASEAN +5 countries, both jointly and partially, the conclusions are as follows (a) Interest rates interest, inflation, exchange rate, corruption and global competition together have a significant effect on = 0.05 on private investment in ASEAN +5 countries. (b) Interest rates have a positive and significant effect on = 0.05 on private investment in ASEAN countries +5. (c) Inflation has a positive and significant effect at = 0.05 on private investment in ASEAN countries +5. (d) Exchange rate appreciation has a positive and insignificant effect at = 0.05 on private investment in ASEAN countries +5. (e) Improvement of corruption has a positive and significant effect at = 0.05 on private investment in ASEAN countries +5. (f) The decline in global competition ranking has a negative and insignificant effect at = 0.05 on private investment in ASEAN countries +5.

Based on the results of this study, the suggestions given by the researcher are as follows:

1. ASEAN +5 countries are expected to periodically inform data on student investment (Gross Fixed Capital Formation By Private Sector). Indonesia is advised to immediately separate gross fixed capital formation data into data per sub-sector (public sector and private sector). With the availability of more complete data, it is hoped that similar research in the future can improve this research.
2. The positive effect of interest rates on private investment could be an indication that the private sector in ASEAN +5 countries relies on financing from domestic sources. The role of the domestic financial sector is very dominant in the availability of private sector capital. Policy makers need to maintain interest rates at a level that does not burden the private sector so that the cost of capital spent is still commensurate with the expected profits to be obtained by the private sector.
3. Policy makers in ASEAN +5 countries are expected not to over-target inflation at a level that is too low. Inflation that is too low will result in the private sector being reluctant to invest.
4. It is necessary to stabilize the exchange rate through a series of policies. The monetary authorities in each ASEAN +5 country need to transmit policies through the right mechanism so that the exchange rate is expected to have a significant effect on private investment in ASEAN +5 countries.
5. All stakeholders in ASEAN +5 countries must make corruption a scourge that must be overcome. Legal policies must be strengthened to create a deterrent effect for perpetrators of corruption. Given the magnitude of the impact of corruption on the economy, the impoverishment of corrupt actors is deemed necessary by imposing the social costs of corruption. Social costs do not only include state financial losses but also calculate losses suffered by the community and losses experienced by business actors. In addition to the enforcement aspect, prevention aspects such as through education should be applied as early as possible by ASEAN +5 countries.
6. In facing global competition, the private sector is in dire need of government policies. Availability of supporting infrastructure is a factor that must be equipped in increasing competitiveness. It is recommended that in infrastructure development, the governments of ASEAN +5 countries are expected to conduct in-depth studies so that the infrastructure built is truly effective and efficient in supporting the private sector. Governments of ASEAN +5 countries are expected to actively engage in international lobbying in the face of policies and regulations from export destination countries where these policies and regulations burden the private sector. Governments of ASEAN +5 countries are expected to increase funding and research activities so as to produce technology that can be applied in the national industry so as to produce products of high quality and/or low cost. Incentives and ease of licensing are also important to support the private sector in facing global competition.

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