

An Examination of The Impact of Several Monetary Variables on Economic Growth and International Investment (Study on ASEAN Countries)

Zainal Arifin¹, Cicih Ratnasih², Machfud Sidik³
{zainalarifin281162@gmail.com}

Universitas Borobudur, Jakarta, Indonesia¹²³

Abstract. The impact of monetary variables such as the money supply, interest rates, inflation, public savings, and the impact of the exchange rate on economic growth and its implications for Foreign Direct Investment (FDI) in ASEAN countries such as Indonesia, Malaysia, Singapore, and Thailand is examined in this study. The data used is panel data for 40 years, namely from 1981 - 2020. Multiple regression of panel data was used as the database analysis approach, where if the panel data owned has a number of times (T) greater than the number of individuals (N) then it is recommended to use the Fixed Effect model. The results of the study obtained that JUB, Bond yields, inflationary, and finance are all factors to consider. and the exchange rate together or individually had a substantial effect on the economy. Meanwhile, economic growth has no effect on FDI.

Keywords: monetary variables; economic growth; FDI

1 Introduction

The country's economic growth experienced a contraction (negative economic growth) which Julius Shiskin called an economic recession. An economic recession that, if left unchecked, will become the ghost of an economic depression. . Julius Shiskin in a 1974 New York Times article entitled "The Changing Business Cycle", A two-quarter drop in real economic output is considered a recession. This definition is still a reference for economists. When there is genuine economic development is negative for two or more quarters of a year, an economic recession can emerge. Four ASEAN countries, namely Indonesia, Malaysia, Singapore and Thailand in 2020 also experienced a contraction in their economic growth as shown in table 1.

Table 1. Economic growth of Indonesia, Malaysia, Singapore and Thailand in 2020

| No | Country | Year 2020 | | | |
|----|-----------|-----------|-----------|-----------|-----------|
| | | Quarter 1 | Quarter 2 | Quarter 3 | Quarter 4 |
| 1 | Indonesia | 2,97% | - 5,32% | - 3,49% | -2.19% |
| 2 | Malaysia | - 0,7% | - 17,1% | - 2,7% | -3,4% |
| 3 | Singapore | -3,3% | -13,2% | -5,8% | -2,4% |

| | | | | | |
|---|----------|--------|---------|--------|-------|
| 2 | Thailand | - 1,8% | - 12,2% | - 6,4% | -4,2% |
|---|----------|--------|---------|--------|-------|

Source: kontan.co.id, 11-02-2021. Accessed 03-2021

This study aims to analyze the effects on economic growth of money supply, rate of interest, inflationary, finance, and currency value in ASEAN nations, as well as their implications for FDI, namely: Indonesia, Malaysia, Singapore and Thailand. interest, inflation, people's savings and the exchange rate both simultaneously and individually are related and have an effect on economic progress and its implications for FDI in the 4 ASEAN countries.

2 Research Methods

This research is a quantitative research Multiple regression analysis is used of panel data. The data that was utilized was data. for the period 1981-2020. This research can be input for the government, entrepreneurs in making decisions to increase economic growth and FDI in 4 countries the ASEAN.

3 Results and Discussion

The results of the study show that the multiple linear regression equation for economic growth is:

$$Y = 11.02 + 3.23e-06X_1 - 0.38X_2 - 0.12X_3 - 0.03X_4 - 0.00X_5$$

(4.25) (-5.78) (-2.61) (-5.13) (-3.37)

Regression equation for FDI

$$Z = 12.34 - 0.31Y$$

(-0.79)

Supply of money, rate of interest, inflationary, finance, and currency value are all factors to consider. all have an impact on economic growth. The F-statistical value of 7.70 is more than the F-table value of 2.49, indicating this. Meanwhile, FDI is unaffected by economic development. The F-statistical value of 0.62 and the F-table value of 2.49 demonstrate this. The money supply has a very small positive relationship and has a substantial effect on economic development, where the t-statistic is $4.25 > t\text{-table } 1.70$. The interest rate is negatively connected to economic growth and has a substantial impact on it, where t-statistic $-5.78 > t\text{-table } 1.70$.

Inflation is inversely connected It contributes to the economic growth and has a significant influence. The t-statistic $-2.61 > t\text{-table } 1.70$ demonstrates this. Where the t-statistic value is $-5.13 > t\text{-table value } 1.70$, public saving is adversely connected and has a considerable influence on economic growth. The exchange rate or exchange rate has a negative and significant effect on economic growth. This can be seen from the t-statistic value of $-3.37 > t\text{-table value } 1.70$, Income growth has a negative correlation with FDI and has no influence on it. which can be seen from the t-statistic $-0.79 < t\text{-table } 1 \text{ value } ,70$.

As a result of the findings, The association between public saving and economic growth, as well as the relationship between economic growth and FDI, can be noticed. is opposite or not in accordance with the theory. Econometric applications are usually models whose relationships between variables are based on a framework of economic theory so that specification errors often occur. Model specification errors can be seen from the symptoms:

- a. The sign of the regression coefficient is opposite or not in accordance with the theory.
- b. The explanatory variables whose theory and reality have a significant effect, have results that do not have a statistically significant effect

In the case of public savings, it does not always indicate a specification error. However, the model needs to be reviewed more deeply with the model specifications. When building a model, it is necessary to ascertain whether there are omitted variables, explanatory variables that are not included in the model. In this study, there are so many macroeconomic variables that must be selected to be included in the model, so that not all of them can be included in the model.

The relationship between economic growth and FDI is contrary to theory, one of which is caused by data outliers. Outliers are data that has a value that is very far from its general value. There are several factors that cause the emergence of outliers, including:

- a. Data input error
- b. Sampling error
- c. Subjects who do carelessly
- d. The facts on the ground are like that

There are also outliers in the economic growth data, namely the 1998 data of -13.38. However, this data is a fact in the field obtained by the world bank.

Another weakness of this study is in terms of selection bias. In the selection of individuals, groups or data, Because appropriate randomization was not performed, the selected sample was not representative of the population. The sample selected was based on a sampling quota, namely data from the last 40 years from available data. The selected variables are unavoidably related to each other, resulting in multicollinearity symptoms. There are three or more independent variables that have a causal relationship which is often called the interaction term.

There is a big gap between one data value and another. This is because of the high variance. The greater the high variance, the higher the gap between the data values. Good variances whose values are close to zero. In the real world, if the value of one independent variable changes, and the other independent variables remain "or known as "ceteris paribus". In fact, if the value of an independent variable changes, the value of the other independent variables will change. This condition is called ceteris paribus confusion.

This study uses secondary data obtained from the World Bank, does not require special research instruments. So that there is no instrument test, whether it is a validity test or a reliability test. No less important is the lack of identification of the problem (lack identification). In each country, Indonesia, Malaysia, Singapore and Thailand have their own economic problems. In this study the identification of the problem is made too general.

4 Conclusion

Economic growth is influenced by the monetary base, rate of interest, inflationary, finance, and currency value. The money supply has a slight positive link with economic growth but has a big impact. Interest rates are inversely related and have a significant influence on economic growth. Inflation has a significant influence on economic growth since it is inversely related to it. Saving by the public is inversely related to economic growth and has a significant influence. The exchange rate, or rate of exchange, has a major negative impact on economic growth. Economic growth has a negative relationship with FDI and has no influence on it.

To boost economic growth, the government, the Central Bank, and the Ministry of Finance must work together to coordinate financial policies pertaining to the money supply, interest rates, inflation, public savings, and exchange rates. The Central Bank must be able to accurately calculate the quantity of money in circulation. So that the money supply growth rate does not exceed the growth rate of actual output, resulting in no increase in the price of products.

The trend of interest rate growth in countries in the world is almost close to 2%. Therefore, the Central Bank must correctly determine the interest rate that is moderate, not too high and not too low. The Ministry of Finance and the Central Bank must make inflation targeting adjusted to the set interest rate.

The Central Bank must reactivate public saving activities. So that people do not use their income to buy imported goods, but rather use it as a development fund, the Central Bank must be able to control the exchange rate so that it does not jump too high. Because economic growth has no effect on FDI. So the Central Bank and the Ministry of Finance must be able to create a good business climate, which can attract countries or companies to make foreign direct investment.

References

- [1] Bucher, Karl. Industrial Evolution. Edisi 2018. USA. Hard Press
- [2] Hildebrandt, Bruno. 1840. Des Nationale System des Politischen Oekonomie. Edisi Cetak Ulang 2018. Jerman. Forgotten Books
- [3] Kuncoro, Haryo. 2018. Statistika Deskriptif untuk Analisa Ekonomi, Jakarta. Penerbit Bumi Akasara
- [4] List, Friedrich. 2016. The natural System of Political Economy. London. Routledge Library Editions :Landmarks in The History of Economic Thought
- [5] Malthus, Thomas Robert. 1798. An Essay on the Principle of Population. Edisi Cetak Ulang 1983. London. Penerbit Penguin Classics
- [6] Ricardo, David. 1852. The Principle of Political Economic and Taxation. Edisi Cetak Ulang. 2004. New York. Dover Publication Inc
- [7] Shiskin, Julius. 1974. The Changing Business. New York, USA. New York Times
- [8] Sombart, Werner. 1916. Der Moderne Kapitalismus Edisi Cetak Ulang 2014>. Jerman. Saltwasser-Verlag GmbH