## Analysis of the Fluctuations of ASEAN Currencies Against the US Dollar

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#### Abstract

At the beginning of 2024, from January to April, there was a downward trend in the rupiah exchange rate against the United States dollar. This downward trend also occurred in various countries in ASEAN. This trend is of course influenced by several factors, both internal and external. This research aims to analyze the internal and external factors that cause this tendency. The data in this research is secondary data and comes from the International Monetary Fund (IMF) at CEIC. This research uses descriptive analytical-qualitative methods. The results of this research show that interest rates, inflation, and net exports in the short term do not have a significant effect on exchange rate movements. However, this depreciation factor trend is more influenced by global geopolitical problems and the size of a country's economy. Geopolitical issues and the size of the economy affect a country's balance of payments (BOP) and foreign exchange reserves, which in turn influence exchange rate movements. Research can provide new information for the academic community and become material for consideration, suggestions, and input for government authorities who have internal decision-making authority regarding exchange rates.

Keywords: ASEAN, Currency, Exchange Rate, Rupiah, US Dollar.

#### Introduction

Currency is an important thing that a country needs to have. Currency is a collection of assets in an economy that are regularly used by someone to make transactions to purchase goods and use each other (Mankiw, 2017). In his journal Davina et al. (2023) states that "since 1944 the United States Dollar (US) has been officially named the world currency through the Bretton Woods Agreement". For this reason, it can be said that trade or transactions that are cross-country or international are standardized with the US dollar. The existence of currency standardization rules in the world means that every transaction between countries will generally be converted into US dollars. This conversion is called the exchange rate. The exchange rate consists of two concepts, namely appreciation and depreciation. Currency appreciation against the US dollar means that there is a decrease in the exchange rate of the domestic currency against the US dollar. While currency against the US dollar.

The rupiah exchange rate has experienced both strengthening (appreciation) and weakening (depreciation) movements. Recently, especially since the beginning of 2024 (January to April), the rupiah exchange rate has experienced a downward trend (depreciation) against the US dollar. This depreciation is of course influenced by multiple factors, both internal and external to a country. This is because Indonesia is a country that adopts a floating exchange rate system. Ascarya et al., (2021) in their book state that "The floating exchange rate system has been implemented in Indonesia since August 14, 1997 until now. In this system, the exchange rate moves according to the strength of market demand and supply. Bank Indonesia can intervene if there is excessive exchange rate volatility."

The trend of depreciation of the domestic currency against the US dollar which is quite consistent during the beginning of 2024 has not only occurred in Indonesia, but also in other countries such as ASEAN countries. For this reason, researchers are interested in analyzing the causes of the strengthening of the US dollar which causes depreciation of the domestic currency in ASEAN countries. The purpose of this study is to determine the internal and external factors of the strengthening of the US dollar which causes depreciation of the domestic currency in ASEAN countries.

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## Figure 1 Conceptual Framework

There is a trend of depreciation of ASEAN countries' currencies against the US dollar. The trend of depreciation of domestic currencies against the US dollar is caused by the demand and supply of domestic currencies and US currencies. Demand and supply of currencies are influenced by various factors, both internal and external. The internal factors referred to are factors that are within the control of the domestic government, such as interest rate policy, inflation, net exports, balance of payments (BOP), and foreign exchange reserves. While the external factors referred to are factors that are beyond the control of the domestic government, such as the economic conditions of the United States and geopolitical issues.

#### Method

This study uses secondary data. The secondary data was obtained from the International Monetary Fund (IMF) data at CEIC. The method used by the researcher is a qualitative descriptive analysis method. According to Endraswara (2013) "a qualitative descriptive method is a method used in research that describes research data through words. In other words, qualitative descriptive research aims to describe, depict, explain, explain and answer in more detail the problems to be studied by studying as much as possible an individual, a group or an event. "

In conducting data analysis, researchers use comparative analysis of the trend of the exchange rate movement of each ASEAN country's currency against the US dollar with the trend of the rupiah movement.

The trend is seen based on data from the last 10 years. Furthermore, researchers analyze the factors that may cause the trend of the exchange rate movement based on data and theory.

#### Results

The depreciation trend occurred in the four ASEAN countries (Indonesia, Malaysia, Thailand, and the Philippines). The trend can be seen in Charts 1 to 4. The following are the data, results, and discussion of the depreciation trend:

# A. Graph of Domestic Currency Exchange Rate Movement of 4 ASEAN Countries against the US Dollar

The graph below shows the movement of exchange rates in ASEAN countries such as Indonesia, Malaysia, Thailand, and the Philippines. The four graphs show that in the last 10 years there has been a dynamic movement of currencies. However, if we look further, in early 2024 (January to April), all four countries experienced an upward trend in the depreciation of the domestic currency exchange rate against the US dollar.



#### Figure 2

Graph of Indonesian Currency Exchange Rate against the US Dollar from April 2014 to April 2024 (Source: International Monetary Funds (IMF) pada CEIC)

In early 2024 (January to April), the rupiah depreciated against the US dollar. Graph 1 shows that the depreciation rate almost reached the highest depreciation point that has ever occurred in Indonesia in the last 10 years. During the last 10 years, the highest point of rupiah depreciation occurred in March 2020. In March 2020, the rupiah exchange rate against the dollar was Rp. 16,367,005. This month coincided with the Indonesian Government confirming that there were cases of Covid-19 in Indonesia.

The Thai Baht also experienced depreciation. The weakening of the Baht currency continued to occur until it reached its highest point after its highest depreciation peak in September and October 2022. October 2022 was the highest point of depreciation of the Thai Baht against the US Dollar, reaching 38.028. However, in the following months the Baht exchange rate appreciated again against the US Dollar, until in early 2024 (January to April) its value continued to decline (depreciate) and reached 37.058 in April 2024.

Based on data from the ASEAN+3 Macroeconomic Research Office (AMRO), Thailand's previous peak depreciation was in September and October 2022. This depreciation occurred due to the aftermath of the Covid-19 pandemic which caused inflationary tensions and a food crisis, as well as the Russia-Ukraine war which caused a global energy supply crisis.



Graph of Thai Currency Exchange Rate against the US Dollar April 2014 to April 2024 (Source: International Monetary Funds (IMF) pada CEIC)

This also happened in the Philippines and Malaysia (see charts 3 and 4). However, the depreciation trend in the Philippines in early 2024 was relatively flatter than in Indonesia and Thailand. However, even though it was flatter, the Philippines also experienced the highest depreciation in the last 10 years after the highest depreciation rate in September 2022.





Graph of Philippine Currency Exchange Rate against the US Dollar April 2014 to April 2024 (Source: *International Monetary Funds* (IMF) pada CEIC) The depreciation trend in early 2024 also occurred in Malaysia. In early 2024, Malaysia reached its highest depreciation point in the last 10 years, reaching 47,768.



Figure 5

Graph of Malaysian Currency Exchange Rate against the US Dollar from KW I 2014 to KW I 2024 (Source: International Monetary Funds (IMF) pada CEIC)

## B. Factors Causing the Depreciation Trend of Each Country's Currency against the US Dollar

Factors influencing the exchange rate are changes in the supply and demand for foreign currency. If the demand for foreign currency is relatively greater than the domestic currency, the value of the domestic currency will decrease (depreciation). Conversely, if the demand for foreign currency decreases, the value of the domestic currency increases (appreciation). Meanwhile, if the supply of foreign currency increases relatively more than the domestic currency, the exchange rate of the domestic currency increases (appreciation). Conversely, if the supply of foreign currency increases (appreciation). Conversely, if the supply of foreign currency increases (appreciation). Conversely, if the supply of foreign currency decreases, the value of the domestic currency decreases (depreciation) (Ascarya et al., 2021). In line with this idea, Harmadi (2020) in his book states that the factors that influence changes in the demand and supply of a currency which ultimately cause changes in the exchange rate are changes in people's tastes, inflation, interest rates, net exports. In related studies, the factors that influence exchange rate movements are interest rates, inflation, and net exports. Furthermore, Oktaviani (2020) in his book stated that the balance of payments (BOP) and foreign exchange reserves are also important things that can cause currency movements.

Based on the information above, it can be concluded that the factors that influence changes in exchange rates are changes in demand and supply of a currency. Changes in demand and supply are influenced by internal and external factors. Internal factors are directed at factors that arise as a result of policies taken such as policies related to interest rates, inflation, net exports, BOP, and foreign exchange reserves. Furthermore, external factors are directed at factors that arise outside the control of domestic government policies, namely the economic conditions of the United States and geopolitical issues.

In the description below, several data factors will be explained that influence the depreciation trend of 4 ASEAN countries against the US dollar:

 Internal Factors of Exchange Rate Fluctuations (Economic Conditions of 4 ASEAN Countries VS the United States)

## a. Interest Rate

Low interest rates will cause domestic capital to flow abroad, conversely high interest rates will cause capital inflows from abroad to the country. If the inflow of capital is greater than the outflow of capital, the demand for money for domestic currency will increase. This will cause the domestic currency to appreciate (Harmadi, 2020).

Based on the graph in Figure 5, it can be seen that at the beginning of 2024 (January to April 2024) interest rates in Indonesia, Malaysia, the Philippines, and Thailand were relatively stagnant, except for Indonesia which raised interest rates in April 2024 from 6.00% to 6.25%.



#### Figure 6

## Interest Rate Graph for Indonesia, Malaysia, Philippines, Thailand, and the United States (Source: International Monetary Funds (IMF) pada CEIC)

The graph shows that the interest rates in Indonesia and the Philippines are relatively higher than the United States. Indonesia's interest rate is at 6.25% and the Philippines' at 6.5%, while the United States' is at 5.33%. Meanwhile, Malaysia's and Thailand's interest rates are below the United States', at 3% and 2.5%.

In theory, the interest rates of Indonesia, Malaysia, the Philippines, and Thailand should be below those of the United States. This is because all four countries are experiencing an increase in depreciation. However, in reality, the interest rates of Indonesia and the Philippines are higher than those of the United States.

This anomaly also occurred during the last 10 years when the United States interest rate was at a lower point compared to Indonesia, Malaysia, Thailand, and the Philippines, the value of the currencies of the four countries actually experienced an increase in depreciation as seen in the graphs 1 to 4.

This condition is likely to occur because the United States is a large and advanced country (developed countries), while Indonesia and the Philippines are developing countries (developing countries/emerging markets). When there was an increase in US interest rates in mid-2023 from 5.08% to 5.33% and in the following month the interest rate stabilized at 5.33%, this made investors prefer to invest in the United States.

This investor behavior can then be seen in the country's capital flow data or capital inflow/outflow in Indonesia, the Philippines, Malaysia, and Thailand, which is depicted in the Balance of Payment (BOP) data. This BOP will then be discussed in point (d) below.

The results of this study are in line with other studies that the author used as sources, namely that in the short term, interest rates do not have a significant effect on the movement of the domestic currency against the United States Dollar.

## b. Inflation

Inflation is a general increase in the price of goods and services that occurs continuously (Otaviani et al., 2020). In general, inflation causes a decrease in the exchange rate (depreciation of the domestic currency). This is because inflation causes domestic prices (domestic) to be more expensive than prices abroad, which makes export prices more expensive. This tendency then makes people prefer to buy foreign goods because they are cheaper (imports). This condition causes the demand for foreign currency to increase, which then has a domino effect on the domestic currency which depreciates against foreign currencies.

The graph in Figure 6 shows that the Philippines' inflation rate is above the United States, which is at 3.80%, while the United States' inflation is at 3.36%. Meanwhile, the inflation rates of Indonesia, Malaysia, and Thailand are lower than the United States. Indonesia's inflation rate is 3.00%, Malaysia's 1.85%, and Thailand's 0.19%.

In theory, a lower inflation rate should cause the domestic currency to appreciate against the dollar. However, in fact, in early 2024, the currencies of Indonesia, Malaysia, and Thailand experienced depreciation which even continued to increase as seen in graphs 1, 2, and 4. This is likely because the inflation that occurred in the United States, Indonesia, Malaysia, Thailand, and the Philippines was mild inflation. According to (Oktaviani et al., 2020) mild inflation is inflation that is at a point <10%.



## Figure 7

Inflation Graph of Indonesia, Malaysia, Philippines, Thailand, and the United States (Source: International Monetary Funds (IMF) pada CEIC)

This discrepancy also occurred in the last 10 years, precisely in early 2021 to early 2023. During that period, the US inflation rate was at a higher point than Indonesia, Thailand, the Philippines, and Malaysia. This is likely because the 4 ASEAN countries are experiencing economic turmoil due to the impact of the Russian-Ukrainian invasion which caused an energy crisis and the Covid-19 pandemic which caused an economic slowdown throughout the world.

c. Net ExporT

Net exports are calculated from total exports minus total imports. Net exports can also be said to be a domino effect of inflation. Relatively high inflation compared to other countries causes domestic goods and services prices to be relatively more expensive compared to other countries. This can then cause export value to decrease and import value to increase. If export value decreases, demand for domestic currency decreases which then causes depreciation, conversely if export value increases, domestic currency will appreciate. Meanwhile, if import value increases, demand for foreign currency will increase and can cause depreciation of domestic currency against foreign currency. The following is a graph of net exports of ASEAN countries over the past 8 years.

In the graph of figure 7, it can be seen that the Philippines and Thailand have negative net exports, which means that the amount of exports of the two countries is smaller than their imports. Meanwhile, Indonesia and Malaysia have positive net exports, which means that the amount of exports of the two countries is greater than their imports. Based on the theory, the four countries should have negative net exports, which indicates that the demand for domestic currency is relatively small, causing depreciation. However, in fact, the net exports of Indonesia and Malaysia are positive.



that is at a point <10%.



Net Exports of Indonesia, Malaysia, the Philippines, and Thailand (Source: International Monetary Funds [IMF] for CEIC)

d. Balance of Payment (BOP)

According to (IMF, 1996) balance of payments (BOP) is a statistical report that systematically summarizes a certain period of time which includes a country's economic transactions with other countries. Based on Bank Indonesia data, BOP consists of current transactions, capital transactions, and financial transactions. Current transactions record all export-import transactions of both goods and services. Capital transactions record capital transfer transactions and purchases or sales of non-financial assets. While financial transactions record transactions related to direct investment, portfolios, other investments, and foreign exchange reserves. The following is a table of the balance of payments/BOP of 4 (four) ASEAN countries in the period April 2023 to 2024.



Figure 9 BOP VS Currency Graph of Each Country (Source: International Monetary Funds (IMF) pada CEIC)

In the figure 8 graph, it can be seen that when the four ASEAN countries experienced depreciation, the BOP of the four countries fell and headed negative. This means that there was a capital outflow that caused domestic money demand to decrease and foreign exchange demand to increase. This also happened in early 2024, the depreciation was most likely caused by capital outflows caused by investor behavior.

In the graph above, it is known that the balance of payments (BOP) used is the BOP of capital transactions and financial transactions. This is because these 2 transactions are transactions that are directly related to the demand and supply of currency. Based on the analysis of the relationship between BOP and currency movements, it was found that BOP/balance of payments greatly influences the movement of the currencies of the four countries.

## e. Foreign Exchange Reserves

Foreign exchange reserves are the amount of foreign currency managed by the Central Bank of each country for foreign payment transactions (Oktaviani et al., 2020). According to (Hadi, 2010) the more foreign exchange reserves a country has, the greater the country's ability to carry out international economic and financial transactions.

A country increases foreign exchange reserves when the balance of payments (BOP) is in surplus, which then causes the domestic exchange rate to appreciate. Conversely, when a country's balance of payments is in deficit, foreign exchange reserves will be issued to pay the deficit, which can then lower the value of the domestic currency (depreciation). The following is a graphical image of the foreign exchange reserves and exchange rates of the four ASEAN countries.







In the graph of Figure 9, Indonesia's foreign exchange reserves during the depreciation trend decreased from \$145051.57 (million) in January 2024 and continued to fall to \$136217.74 (million) in April 2024. This also happened in Malaysia, foreign exchange reserves in January 2024 were \$114850.85 (million) down to \$113198.25 (million). In Thailand during January to April 2024 there was also a decrease in foreign exchange reserves from \$198320.02 (million) down to \$196549.06 (million). In line with the other three countries, the Philippines also experienced a decrease in foreign exchange reserves in the period January to April 2024, namely \$102682.54 (million) down to \$102594.53 (million). Based on the data, it is known that foreign exchange reserves greatly affect the movement of the exchange rates of the four countries. This is also depicted in the graph in the last 10 years.

- 2) External Factors of Currency Fluctuations of 4 (Four) ASEAN Countries
  - a. Economic Conditions of US

The US economy is quite strong, this makes the Fed as the US Central Bank postpone cutting interest rates. Based on the data in chart 6, it can be seen that inflation in the United States is stable and continues to fall approaching the target. The US inflation target is 2%.

On the other hand, US interest rates are quite high and stable amid global geopolitical issues such as the Russian-Ukrainian invasion, which makes investors confident in investing their capital in the United States. This capital inflow makes the US economy stronger, which then makes the dollar appreciate against other countries in the world, especially developing countries such as Indonesia, Malaysia, Thailand, and the Philippines.

b. Geopolitical Issues

The current global geopolitical issues are the Russia-Ukraine war and the Gaza Strip war between Israel and Palestine. The Russia-Ukraine war has caused obstacles in the trade chain and an increase in oil and gas prices.

Obstacles in the trade chain and the increase in oil prices have further caused an increase in the prices of goods and services in general (inflation). This inflation can then affect exports and imports and exchange rate movements.

However, based on the analysis that has been done, global geopolitical issues affect the exchange rate through sentiment towards investor confidence. The existence of geopolitical issues makes investors look for safe countries to invest. Based on the data above, it is known that investors prefer the United States as a safe haven or a safe place to invest. This is because the economic conditions of the United States are strong and interest rates in America are relatively high and stable.

#### Conclusion

Based on the results of the analysis of the trend of currency exchange rate movements in 4 (four) ASEAN countries (Indonesia, Malaysia, Thailand, and the Philippines) against the US dollar in early 2024 (January to April 2024), it can be concluded that in the short term, interest rates, inflation, and net exports do not have a significant effect on the movement of currency exchange rates in the four ASEAN countries against the US dollar. In the short term, the exchange rate is more influenced by the economic conditions of the United States and global geopolitical issues, which then affect the country's capital flows. The country's capital flows are reflected in the balance of payments (BOP) or the country's balance of payments and foreign exchange. This is because the four ASEAN countries are still developing countries (developing countries/emerging markets) which in practice still depend on the conditions of developed countries.

For this reason, researchers hope that the Indonesian government and people can continue to improve and strengthen the economic foundations so that Indonesia can improve its economy from a developing country to a developed country, so that the level of investor confidence will increase and capital inflows will increase.

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