### **CHAPTER I**

### INTRODUCTION

## 1.1. Background

Globalization has enhanced the degree of interconnections among nations in the world. The level of interest in the relationship is greatly affected by the need by countries to fulfill one another. The international processes of trade of each country influence the ways in which countries meet their demands. It is undeniable that international trade cannot be realized without the adoption of a common currency, which is the US dollar. This can be explained by the fact that unlike in other currencies, the US economy is stable and very strong. The value of the native currency of a nation, when it is compared to the US currency, is often in a state of change because of the widespread use of the US dollar. The unexpected fluctuation of the currency values will be more prominent in this case since the exchange rates are generally unstable and are affected by several economic conditions.

Exchange rates are important macroeconomic indicators since they can influence the general economic stability of a nation. They enhance efficiency of foreign transactions by being an avenue of converting currency. The exchange rate displays the effects of pressure, the impact of the region, and the overall economy (Barguellil et al., 2018). Thus, the overall state of the economy of a country can be assessed by considering the exchange rate amidst two currencies.

Currency exchange rates are influenced by the interactions between supply and demand of foreign currencies by individuals, business, also financial institutions participating in the worldwide economic activity. When the demand of a certain currency increases and its supply remains constant or decreases, the value of the currency tends to increase. Conversely, the value of a currency will be low when its supply increases but its demand remains constant or decreases. Maintaining the real exchange rate is essential in establishing the economic policies that are effective especially in developing countries. This balance is

imperative in international trade as well as in the rate of global competitiveness of a country.

Due to the open economic system, Indonesia has been actively involved in international trade which consists of importation and exportation activities. The country has a free-floating exchange rate regimen, which implies that it is up to market forces in the foreign exchange market to determine the value of its currency. Accordingly, the fluctuations of the exchange rate result due to the fluctuations in the supply and demand of foreign currency. This therefore often makes the rupiah value very volatile and unpredictable against the US dollar. This volatility is normally experienced more in economies that have variable exchange rate regimes in comparison to fixed systems.

Open exchange rate systems and, in particular, free-floating exchange rate systems and free financial markets often have high exchange rate volatility (Achouak et al., 2018). The central banks are in difficulty trying to ensure the stability of the exchange rates and this is more so when the Bank Indonesia maintains the exchange rate because the currency prices are highly sensitive to both the supply and demand within the foreign exchange market. Central banks of emerging economies are fundamental to macroeconomic stability because they control inflation, maintain currency stability, and respond to external economic shocks (Alatrash, 2018; Binici, Kara, & Zlu, 2019; Egea & Hierro, 2019; Tran, 2018). Indonesia is reliant on foreign trade and foreign investment and therefore exchange rate variations may significantly impact on interest rates, inflation and overall economic growth.

According to Bank Indonesia's constitutional mandate, their objective is to keep the Rupiah's value stable, which can be explained by the fact that the Rupiah is a national currency that can be converted into other foreign currencies. Rupiah's value when changing into another foreign currency is represented by the exchange rate. Therefore, it is important for Bank Indonesia to preserve exchange rate stability as it directly relates to its objective as a monetary authority. Unpredictable fluctuations in currency values are the phenomenon that frequently takes place and is related to currency exchange rates.

The data on the Rupiah's value in relation to the US dollar during the period when the free-floating exchange rate regime was put into place is displayed in Figure 1.1 below.



Figure 1.1 Exchange Rate of Indonesia in 2010-2022

Source: Federal Reserve Economic Data

The exchange rate for the rupiah has fluctuated every year, as shown by Figure 1.1 above. From Rp. 9,078/\$ in 2010 to Rp. 14,916/\$ in 2022, the rupiah's exchange rate has changed. There will be short- and long-run negative effects on Indonesia's economic situation due to the increasing volatility of the rupiah exchange rate against the US dollar.

There are numerous factors that influence the exchange rate, as demonstrated in 2010, when the rupiah exchange rate against the USD was in the range of Rp. 9,078 due to the global economic recovery, which was primarily caused by the rapid inflow of foreign capital. However, this did not last long, as the rupiah depreciated against the US dollar between 2011 and 2015, reaching Rp. 13,457/\$. The rupiah exchange rate has depreciated against the US dollar, which is thought to be due to a reduction in the flow of foreign capital into the country, as well as the normalization of monetary policy in the United States and the devaluation of the Chinese currency.

The Fed, which serves as the country's central bank, began increasing its benchmark interest rate in March 2022 to control soaring inflation. In March 2022, year-over-year (yoy) inflation in the US reached 9.7 percent, the highest level since January 1981. Indeed, rising food and energy prices are the main causes of the US's severe inflation problem. The reason was initially the Covid-19 pandemic in 2020, which was then triggered by the impact of the war in Ukraine. In 2022, inflation soared to a more serious level, which consequently made the Rupiah depreciate against the US dollar around Rp. 14,916. The public's demand for rupiah will decline because of the exchange rate decline, which will also result in an increase in rupiah supply. By raising the Fed's interest rate, investors consider that saving their money in the US promises greater returns and lower risk than in developing countries, including Indonesia.

An evaluation of a country's internal and external economic situations can be done using exchange rates. Changes in the real sector, such as output, consumption, also investment, can then be observed in response to internal conditions. Exports and other types of international trade are also a part of the external aspect (Eris et al., 2017).

Interest rates, inflation, and exchange rates are all closely related. By adjusting interest rates, the central bank of a country has a significant impact on inflation and currency values. Demand for the currency increases in response to rising interest rates since both domestic and foreign investors are looking for greater returns. Currency appreciation may result from this. However, Investors might withdraw out of the market until the central bank raises interest rates once more if inflation increases too quickly. On the other hand, the currency frequently depreciates when the central bank decreases interest rates because investors find lesser returns and less appealing.

Although domestic factors can have an impact, global economic effects have an unbreakable connection to the volatility of the Rupiah exchange rate relative to the US dollar. Exports and imports are two of these factors. Importing generally refers to purchasing goods or services from different countries, whereas

exporting often refers to selling goods and services abroad. A trade balance deficit results from lower exports than imports, and vice versa.

Trade openness is one of the factors that influences the rupiah exchange rate. Exporters and importers both need a transaction tool to complete all administrative tasks when carrying out trading activities. Money is the transaction tool that may be used legally to make a payment, and each country certainly has its own currency with different exchange rates. The activity of trade openness will lead to several things, one of that is the fluctuation of the rupiah exchange rate, making it important to pay attention to.

Arifin and Mayasya (2018) employed both the OLS and ARCH-M techniques to explain the substantial and positive impact of inflation and interest rates on the rupiah exchange rate. Additionally, Sitorus (2018) found using the OLS approach that exports have a negative and considerable influence on the exchange rate, inflation has a negative but not significant effect, and interest rates have a positive effect. Previous studies on Indonesia have often examined single variables like inflation or exports, but few have tested the combined long-run relationship of GDP growth, inflation, interest rates, also trade openness on the IDR/USD exchange rate. This study fills that gap using an ARDL cointegration framework.

In this case, Indonesia shows that the level of stabilization of the rupiah currency is the most sensitive variable to the main problems faced by the Indonesian economy, due to the rupiah's exchange rate against the US currency is a crucial factor for Indonesia's economic progress internationally. This study aims to discover the extent to which trade openness, GDP, inflation, also interest rates impact the value of the rupiah, as described above. Although there are other variables that can influence shifts or fluctuations in the value of the rupiah, this is considered important since the government can use it as a guide or strategy to keep the exchange rate stable.

### 1.2. Research Problem

The problem is formulated as follows in view of the previously discussed background:

- 1. Do GDP growth, inflation, interest rates, and trade openness significantly influence the USD/IDR exchange rate?
- 2. Is there a long-run cointegration relationship between these macroeconomic variables and the exchange rate over 2010–2022?

## 1.3. Research Objective

According to how the problem was formulated, the purpose of this study is to:

- 1. To examine the influence of GDP growth, inflation, interest rates, and trade openness on the USD/IDR exchange rate.
- 2. Determine whether these variables exhibit a long-run cointegration relationship with the exchange rate.

# 1.4. Research Advantages

The results of this study are expected to contribute ideas to:

- 1. The findings of this study can help researchers for better understanding how gross domestic product, inflation rate, interest rate, and trade openness affect exchange rates in Indonesia.
- 2. For readers, it is hoped that this research can provide information on current conditions regarding the development of the Rupiah exchange rate against the US dollar in Indonesia.
- For academics, especially in the field of economics, will find that this'll be useful as reference material for conducting further research on related topics.
- 4. For Bank Indonesia as material for consideration in implementing monetary policy.