CHAPTER I

INTRODUCTION

1.1 Background

Inflation is one of the most crucial macroeconomic indicators in determining the stability and health of an economy. Fundamentally, inflation occurs due to an imbalance between supply and demand in the economy, which directly impacts people's purchasing power, the efficiency of resource allocation, and investor confidence in a country's economic climate. Controlled inflation reflects a healthy and stable economy, while high or uncontrolled inflation can lead to various problems such as a decline in public purchasing power, distortions in resource allocation, and uncertainty in long-term economic planning. Therefore, a deep understanding of the factors influencing inflation is crucial, particularly for developing countries like Indonesia, which are highly vulnerable to external shocks.

As a country with an open economy, Indonesia is not immune to the influence of global economic dynamics. In recent years, Indonesia has faced significant inflationary pressures due to the convergence of various external and domestic factors. In 2022, strong economic growth of 5.3 percent drove inflation up to 5.51 percent, influenced by a surge in global energy prices and supply chain disruptions. This figure is the highest since 2014 and serves as a serious warning for Indonesia's monetary authorities to immediately implement control measures. This situation does not exist in isolation but is the result of a complex interplay between exchange rate factors, domestic interest rate policies, and monetary pressures from developed countries, particularly the United States.

Figure 1.1 Inflation Trends in Indonesia, 2010–2025

Source: Investimg.Com, Bank Indonesia, Central Statistics Agency

One of the most influential external factors affecting Indonesia's inflation dynamics is the Federal Funds Rate (FFR), the benchmark interest rate set by the U.S. central bank, the Federal Reserve. In the era of financial globalization, changes in the FFR not only impact the U.S. domestic economy but also create spillover effects on various developing countries, including Indonesia. The Fed's decision to cut the benchmark interest rate marked a new " " phase of U.S. monetary policy easing following a period of aggressive tightening in 2022–2023 aimed at curbing post-pandemic inflation spikes and global commodity price shocks. During that U.S. monetary tightening cycle, the

FFR rose from near zero percent to over 5 percent, triggering massive *capital outflows* from developing countries, including Indonesia.

The impact of the FFR hike on Indonesia is multifaceted. First, the rise in the FFR encourages global investors to shift their portfolios toward dollar-denominated instruments offering higher yields, resulting in *capital outflows* from Indonesia's financial markets. Second, these capital outflows put downward pressure on the rupiah exchange rate and cause depreciation, which in turn increases import costs and fuels *imported inflation*. A 1 percent increase in the Fed's interest rate significantly contributes to a 2–3 percent depreciation of the rupiah in the short term, and every 10 percent depreciation of the rupiah can increase inflation by 1–2 percent over a longer time horizon. This transmission mechanism illustrates the strong link between U.S. monetary policy and inflation in Indonesia.

The rupiah's exchange rate against the U.S. dollar (USD/IDR) serves as one of the primary channels transmitting external inflationary pressures into the domestic economy. The rupiah exchange rate hit a four-year low of around IDR 16,240 as of April 17, 2024, sparking concerns in financial markets. This situation was exacerbated by escalating global geopolitical tensions, the recovering U.S. economy driving the dollar's strength, and *capital outflows* that amplified the rupiah's weakness. On the domestic front, Indonesia's inflation also remains higher than expected. The inflation rate is projected to continue rising in tandem with increases in global oil prices caused by tensions in the Middle East, which are driving food and energy inflation, while *imported inflation* remains high. This phenomenon empirically demonstrates a close relationship between the depreciation of the rupiah's exchange rate and the acceleration of Indonesia's domestic inflation.

The mechanism of *imported inflation* operates through the prices of imported goods denominated in U.S. dollars. When the rupiah weakens, all imported goods—ranging from industrial raw materials and consumer products to energy commodities such as petroleum products (BBM)—become more expensive when denominated in rupiah. The increase in fuel prices in September 2022 contributed 1.15 percent for gasoline and 0.04 percent for diesel to overall inflation, bringing the annual inflation rate for gasoline throughout 2022 to 32.67 percent and for diesel to 35.94 percent. This striking example underscores the significant impact of changes in the prices of imported commodities on Indonesia's national inflation rate.

In response to inflationary pressures and the depreciation of the rupiah, Bank Indonesia actively utilized its policy interest rate instrument—the BI Rate—as the primary tool of monetary policy. Bank Indonesia decided to raise the BI 7-Day Reverse Repo Rate by 50 basis points to 4.25 percent as a *front-loaded*, *preemptive*, and *forward-looking* measure to lower inflation expectations and ensure core inflation returns to the target of 3.0±1 percent in the second half of 2023; this step also aims to strengthen the policy to stabilize the rupiah exchange rate amid high uncertainty in global financial markets. This is clear evidence that the BI Rate is used as a dual tool: to control inflation while stabilizing the rupiah exchange rate.

The Bank Indonesia Board of Governors' meeting in April 2024 decided to raise the BI Rate by 25 bps to 6.25 percent, with the aim of strengthening the stability of the rupiah exchange rate against the impact of worsening global risks, as well as serving as a *preemptive* and *forward-looking* measure to ensure inflation remains within the target range of 2.5±1 percent in 2024 and 2025, in line with a *pro-stability* monetary policy *stance*. This cycle of BI Rate hikes reflects how Indonesia's domestic monetary policy cannot be separated from the global context, particularly from movements in the U.S. Federal Funds Rate (FFR). From 2022 to 2024, increases in the BI Rate have driven up interest rates on government securities to levels relatively higher than bank deposit rates, thereby providing a greater incentive for the public to invest in government securities. The resulting decline in consumption and investment following BI Rate hikes is what, in theory, should temper the pace of inflation.

Although the relationship between the exchange rate, the BI Rate, the FFR, and inflation has been extensively discussed in theory, empirical studies on these four variables—particularly in the Indonesian context—continue to yield mixed results. According to Mankiw (2022), high inflation tends to cause exchange rate depreciation because domestic output prices become relatively more expensive compared to those in other countries. However, this relationship can also work in the opposite direction, where exchange rate depreciation first drives inflation upward through the channel *of imported inflation*. This ambiguity in causality makes empirical research based on Indonesian data highly relevant and important for strengthening the existing scientific literature.

Based on the background of these phenomena and the research gaps outlined above, this study examines the impact of the rupiah's exchange rate against the U.S. dollar, the Bank of Indonesia's policy rate (BI Rate), and the Federal Funds Rate (FFR) on inflation in Indonesia. These three independent variables were selected because, both theoretically and empirically, they have clear transmission mechanisms affecting inflation, whether through domestic monetary channels or external channels. This study is expected to provide theoretical and practical contributions to policymakers at Bank Indonesia and the Ministry of Finance in formulating an appropriate policy mix to maintain price stability in Indonesia.

1.2 Research Questions

Based on the background described above, the research question in this study is:

1. Does the exchange rate of the rupiah against the U.S. dollar affect inflation in Indonesia in the long run?
2. In the long run, does the exchange rate of the rupiah against the U.S. dollar affect inflation in Indonesia?
3. In the long run, does the interest rate affect inflation in Indonesia?
4. In the short term, do interest rates affect inflation in Indonesia?
5. Does the Federal Funds Rate affect inflation in Indonesia in the long run?
6. Does *the Federal Funds Rate* affect inflation in Indonesia in the short term?

1.3 Research Objectives

Based on the background and research questions outlined above, the objectives of this study are as follows:

1. To determine the long-term effect of the Rupiah exchange rate on the Rupiah exchange rate in Indonesia.
2. To determine the short-term effect of the Rupiah exchange rate on the exchange rate of the rupiah in Indonesia.
3. To determine the long-term effect of interest rates on the rupiah exchange rate in Indonesia.
4. To determine the short-term effect of interest rates on the rupiah exchange rate in Indonesia.
5. To determine the long-term effect of *the Federal Funds Rate* on the rupiah exchange rate in Indonesia.
6. To determine the short-term effect of *the Federal Funds Rate* on the rupiah exchange rate in Indonesia.

1.4 Research Benefits

1.4.1 Theoretical Benefits

This study is expected to make a significant theoretical contribution to the development of monetary economics, particularly in understanding the determinants of interest rate policy in developing countries. Academically, this study enriches the literature on the transmission mechanism of monetary policy in an open economy, with a focus on the role of external factors in influencing domestic policy. This study also examines the relevance of the International Fisher Effect theory in the context of Indonesia's monetary policy and confirms or re-examines international monetary economic theories using the latest data.

1.4.2 Practical Benefits

From a practical perspective, this study offers broad benefits to various stakeholders in the economic and financial sectors. For Bank Indonesia, as the monetary authority, the findings of this study can serve as additional input in formulating interest rate policy by taking the impact of external variables into account more systematically. A better understanding of how global gold prices, *the Federal Funds Rate*, and the rupiah exchange rate affect the effectiveness of interest rate policy can help Bank Indonesia design more effective policy communication strategies for the market, as well as anticipate the impact of external shocks on domestic macroeconomic stability.