

## CHAPTER I

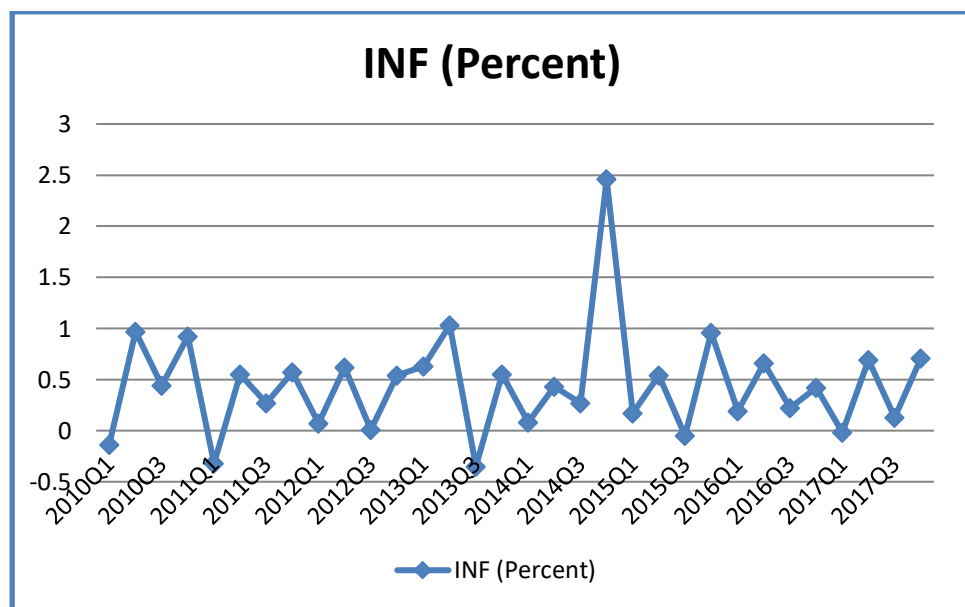
### INTRODUCTION

#### A. Background

As written in the Bank Indonesia act No.23 on 1999, article 7 which now amended in the act No.3 on 2004 as states that “the ultimate goal of Bank Indonesia is to achieve and maintain the stability of rupiah” which then been elaborated that the stability of rupiah is reflected through two directions, the inward is through inflation and the outward is through exchange rate. Theoretically, inflation is a monetary phenomenon where all the general prices are increasing overtime in the economy. The increasing of price is a common thing yet it could worsen if the price is uncontrollable which lead to a catastrophe on the economy of nations. However, in the matter of controlling inflation Bank Indonesia only can control it from the monetary aspects and the outside of it is out of the control of Bank Indonesia (Bank Indonesia, 2004).

Since the implementation of inflation targeting framework (ITF) as a strategy for implementing monetary explicitly on July 2005, Government together with Bank Indonesia surely already take it into their consideration about the important impact of inflation towards economic growth in order to improve social welfare and the consideration so that Indonesia is able to compete with other countries.

During the period from January 2010 until December 2017 based on a quarterly basis data, the inflation always fluctuates as shown in the graph below. The inflation rate during the first quarter of observation on 2010 began with number -0.14 percent. The highest rate on the observation periods is in the fourth quarter of 2014 with number 2.4 percent and the lowest number is during the third quarter of 2013 with -0.35 percent rate.



Source : BPS (Statistics Indonesia)

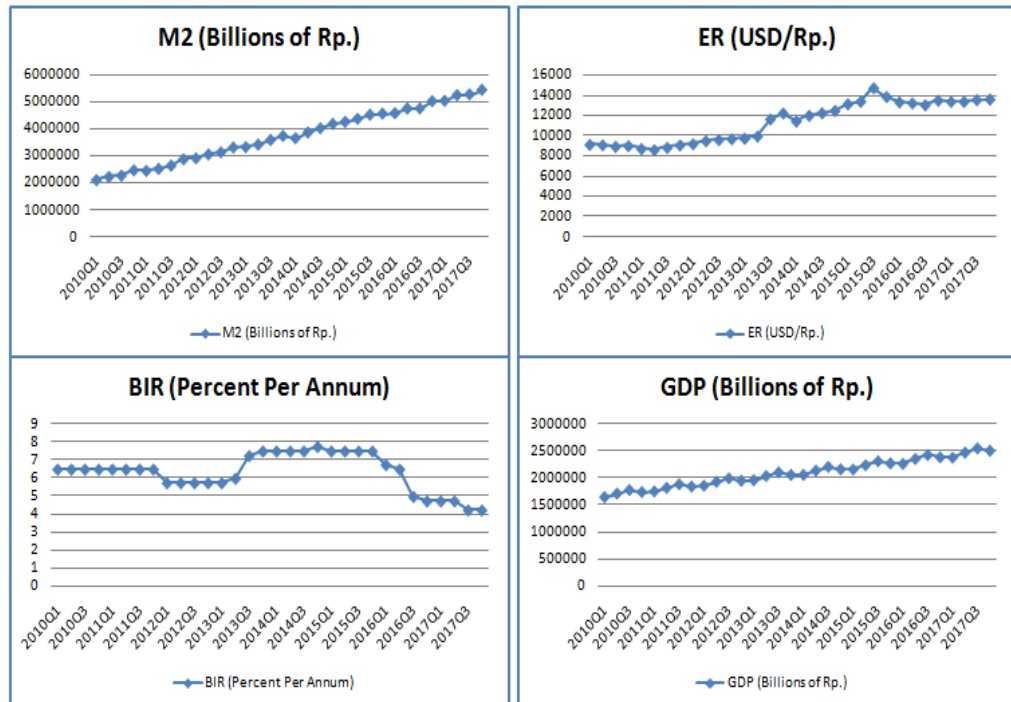
Figure 1-1 Inflation Volatility Period 2010.I-2017.IV

Inflation volatility is an inevitable phenomenon, it is common but needs to be under control. The achievement of inflation in within target range is a big agenda which is currently being carried out by Bank Indonesia considering the impact of high inflation could give is a big deal to the other economic aspects and society. Considering one of the Indonesian characteristics is has a large number of the population is in a group that lives slightly above the poverty line, which means that relatively small inflation

shocks can push them below the poverty line, making suffer and delight separated by thin lines. There for keeping inflation at a low level is pretty much goal of economic policy makers in Indonesia and around the world.

Basically, the causes of inflation are demand-pull inflation and cost-push inflation. From the Central Bank, they can control it only from monetary aspects such as money supply, exchange rate, interest rate, and gross domestic product. First, taken from the quantity theory assumes that the increase in the quantity of money supply is matters and could lead to inflation. Second from Exchange rate aspects, in this global era international trade is cannot be avoided, on that kind of transaction one of the currencies that usually use and can be accepted is US dollar. The value of a domestic currency on exchange rate is important because it would affect the international trade that eventually will affect the domestic economy. The depreciation of domestic currency's value on the exchange rate is often associated with higher inflation or vice versa. Move on to the interest rate, since the implementation of Inflation Targeting Framework on 2005 the central bank declared that interest rate is one of the tools that can influence the inflation volatility, the rise in the interest rate could suppress public and government spending so as to reduce the overall demand which ultimately decreases the inflation rate. The important of gross domestic product towards inflation is taken from the Keynesian theory of consumption where an increase in the consumption means an increase in the demand side, however if the shift of demand not followed by the aggregate supply because

when GDP is low the aggregate supply is relatively flat then it could lead to the demand-pull inflation.



Source: Bank Indonesia and BPS (Statistics Indonesia)

Figure 1-2 Volatility of M2, ER, BIR, and GDP Period 2010.I-2017.IV

Looking from four variables that based on theories explained above are matter towards the inflation volatility: variables money supply, exchange rate, and GDP are all tends to increase time over time except the interest rate which tend to more stagnant for quite long periods over time and decrease at the end of observation periods while the inflation still remains within 3 percent range. The performance of those variables rises some questions about their role or contribution towards keeping inflation volatility within the range in real life in the short-term or long-term.

Some researcher has been conducting their research and journal published about the influence of some variables that might influence the volatility of inflation. Some of the variables that they marked to be important towards the volatility of inflation on their research are variables money supply, exchange rates, interest rate, and gross domestic product. Some of them gave significant results and some other not. Such as (Langi, Masinambow and Siwu, 2014) in their research on “Analisis Pengaruh Suku Bunga BI, Jumlah Uang Beredar, dan Tingkat Kurs Terhadap Tingkat Inflasi di Indonesia” explain the error correction model Engle-Granger results that the changes interest rate is a positive influence and significant towards the changes of inflation. Meanwhile, the changes in money supply and exchange rates are not significantly affecting the rate of inflation in Indonesia even though they a have positive influence.

Based on Hossain(2005), Historically Indonesia has experienced 35 percent per annum rise of inflation during OPEC oil shock on the 1973-1974 and second shock of OPEC oil price on 1979-1980 with 20 percent per annum. Moderately high Inflation also has been experienced within the range around 10-12 percent per annum on late-1960 until 1990. On 1997-1999 the Asian currency crisis also known as ‘Krismon’ by Indonesian people is hit the country’s economy with the peak level on 1998 the Inflation is rise about 60 percent. The inflation during 1997-1999 seemly spread affecting others sectors such as economy, society, and polity.

Based on those backgrounds the aim of this paper is that the researcher wants to study the nature of Inflation and the factors that may influence and control the fluctuation of Inflation in Indonesia in long-run and short-run, there are money supply, exchange rate, BI rate, and gross domestic product with a period of data from January 2010 until December 2017 on a quarterly basis. With the title “ANALYSIS THE INFLUENCE OF MONEY SUPPLY, EXCHANGE RATE, INTEREST RATE, AND GROSS DOMESTIC PRODUCT TOWARDS INFLATION IN INDONESIA”

## **B. Limitations**

There are many factors that may influence inflation rate in Indonesia, and to prevent analysis problem on the study that may occur, this study has the following limitation:

1. Use data on a quarterly basis from January 2010 until December 2017.
2. This study is using inflation data on a quarterly basis for the dependent variable.
3. The study case is limited to five Independent variables or indicators, they are money supply, exchange rates, BI rate which is the interest rate, and gross domestic product on a quarterly basis.

### **C. Research Question**

Based on the explanation that has been described above the research question is aimed to answer:

1. How does money supply influence the inflation in short-run and long-run equilibrium, and how the significance of money supply variable?.
2. How does exchange rates, influence the inflation in short-run and long-run equilibrium, and how the significance of exchange rates variable?.
3. How does BI rate or interest rate, influence the inflation in short-run and long-run equilibrium, and how the significance of the BI rate variable?.
4. How does gross domestic product influence the inflation in short-run and long-run equilibrium, and how the significance of gross domestic product variable?.

### **D. Research Objective**

The Objective of this paper is to study or to analyze some macroeconomic variables including money supply, exchange rate, bi rate, and gross domestic product towards Indonesia's inflation. Based on the research question above, the objectives of this research study are:

1. Analyze the influence of money supply towards inflation volatility.
2. Analyze the influence of exchange rate towards inflation volatility.
3. Analyze the influence of BI rate towards inflation volatility.
4. Analyze the influence of gross domestic product towards inflation volatility.

#### **E. Research Benefit**

This study contributes useful information related to inflation in Indonesia and for any parties who might be interested in it or any other fields that require inflation in it. The focus benefits of this study are:

1. For government: this study could contribute a source of information and thought or considerations for making a regulation to maintain the stability of inflation in Indonesia.
2. For academics: this study expected to contribute and provides additional information for further research about analysis in inflation.

#### **F. Research Plan**

For better understanding, this paper will be divided into some chapter in systematic as follows:



## **1. Chapter I, Introduction**

This chapter explains the general information including background, limitations, research questions, the objective which explain the purpose of exploring the object in this study, research benefit, and the systematic plan of study.

## **2. Chapter II, Literature Review**

Chapter two contains the theory related to the study in form of understanding and definitions. This chapter also includes some of the previous research findings that have relations to this study and the hypothesis of the study.

## **3. Chapter III, Data Research and Methodology**

Chapter three contains a brief explanation of the data conducted in this study, methodology and analyzing steps of the study.

## **4. Chapter IV, Overview**

Chapter four contains the general description and overview of the growth of exchange rates and also included the macroeconomic variable within this study.

## **5. Chapter V, Research And Analysis**

Chapter five consists of interpretation, explanation, and discussions regarding the data processed that shows the finding result.

## **6. Chapter VI, Conclusion**

The last chapter contains the result of data processed, gives the recommendation for policy consideration and next research.