Journal of Taxation, Accounting, Management and Economics, Vol 1 Issue 2, July 2023
e-ISSN: 2988-7097
p-ISSN: 2988-7089

CONSUMER PRICE INDEX ANALYSIS IN INDONESIA

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Abstract: *The purpose of this study is to analyze the consumer price index in Indonesia and identify the factors that contribute to changes in consumer prices. This research will involve statistical and econometric analysis to identify the relationship between the CPI and important variables such as money supply, interest rates, GDP, exchange rates, and other relevant factors. This research is a qualitative descriptive study with a literature study method through literature studies sourced from journals of previous research results, using time series data from 2003 to 2022 obtained from the Central Statistics Agency (BPS) and Bank Indonesia. The results of this study explained that the money supply, interest rates, gross domestic product and exchange rates have a close relationship with the consumer price index variable in Indonesia.*

Keywords: *Consumer Price Index, Money Supply, Interest Rates, Gross Domestic Product, Exchange Rates.*

INTRODUCTION

Economics is the study of how a society chooses to use scarce resources to produce or produce goods and services and distribute these goods and services to the public for consumption (Rangkuty et al., 2022). The economy is a measuring point for loyal countries because the economic growth of a country can be said to be good if its economic growth is stable or rising in a positive direction. Economic growth and stability are the goals of all countries to achieve good national development to improve the welfare of an equitable society. With stable and good economic growth, the state data carries out development and provides good services for the entire community. Thus economic growth and stability are two things that must be pursued as well as possible (Rahmana, 2017). Both developed and developing countries experience economic stability and economic growth problems. One of the main problems or drivers of economic instability that can disrupt economic growth is that which measures the average price of goods and services consumed by households and the inflation rate of a country better known as the Consumer Price Index (CPI).

The consumer price index (CPI) is an important indicator in measuring a country's inflation rate. The CPI describes the average change in the price of a group of goods and services consumed by households in a given period. CPI data is used by governments, financial institutions, businesses, and the general public to monitor consumer price movements, make economic decisions, and plan appropriate policies. In Indonesia, the CPI is calculated and published by the Central Bureau of Statistics (BPS) every month. However, changes in the prices of goods and services that occur in the market are very complex and are influenced by various economic, social, and political factors. Therefore, an in-depth analysis is needed to understand the factors that influence the CPI in Indonesia.

Economic development is a process to achieve a country's goal of community welfare. The success of a country's economic development is strongly influenced by the pattern of economic policies carried out by the country's government. Based on some countries that experience inflation, inflation occurs because of the large amount of money supply (JUB), wage increases, economic crises, budget deficits, economic growth and many others. Meanwhile, in developing countries, efforts to maintain macroeconomic stability are carried out by maintaining the stability of the inflation rate. Inflation from the demand side, as well as from the supply side. Theoretically, inflation refers to changes in the general price level (goods and services) that occur continuously due to an increase in aggregate demand or a decrease in aggregate supply. Inflation that becomes more serious tends to reduce productive investment, reduce exports and increase imports. This tendency will slow down the economy (Eno, 2020). The implementation of monetary policy plays an important role in establishing stability in the economic field, maintenance in the economic field will be created through the achievement of a macro balance characterized by a low and controlled inflation rate and a balanced balance of payments development. Inflation has a very big influence on the economy of each region, the development of inflation which continues to increase provides obstacles to economic growth that is heading in a better direction (Yusri, 2016).

Indonesia, a developing country with a large population and dynamic economy, faces the challenge of maintaining price stability and controlling inflation, as significant price changes can have a negative impact on people's purchasing power, economic growth, and general social welfare. Stable consumer prices and controlled inflation are important for a country's economy. High fluctuations in consumer prices can cause economic instability, harm people's purchasing power and affect the government's monetary and physical policies. Research on CPI analysis in Indonesia has high relevance. First, a better understanding of the factors that influence the CPI will help the government and economic actors in formulating appropriate policies to control inflation. Second, accurate information on the CPI will help the public in planning personal finances, managing spending, and anticipating price changes in the market. In recent years, Indonesia has experienced significant price fluctuations due to both internal and external factors. Changes in global commodity prices, currency exchange rate fluctuations, changes in government policies, as well as seasonal factors such as natural disasters and extreme weather can affect consumer prices in the domestic market However, the problems and challenges associated with CPI analysis in Indonesia are also a focus of attention.

The results on analyzing the consumer price index in Indonesia are relevant because of the importance of understanding the trends and factors that influence changes in consumer prices. By analyzing the CPI, we can understand the inflation that occurs, identify the causes of price fluctuations, and plan appropriate policies to maintain price stability. Several previous studies have been conducted on CPI analysis in Indonesia, but there are still aspects that need further research. For example, previous studies may have analyzed the factors that affect the CPI in general, but not in depth.

The purpose of this study is to analyze the consumer price index in Indonesia and identify the factors that contribute to changes in consumer prices. This research will involve statistical and econometric analysis to identify the relationship between the CPI and important variables such as money supply, interest rates, GDP, exchange rates, and other relevant factors.

LITERATURE REVIEW

1. Consumer Price Index (CPI)

The consumer price index (CPI) according to (Karlina, 2017) is an index that describes changes in the prices of goods and prices of services consumed by the general public in a predetermined period. The consumer price index is a very important economic indicator and can be used as a tool to represent changes in the price level at the retail average at the consumer level for a certain type of goods and services (Sumantri & Latifah, 2019).

The consumer price index (CPI) is one of the important economic indicators that can provide information about the development of prices and services paid by consumers (BPS, 2021). The CPI calculation is intended to determine changes in the prices of a fixed group of goods and services that are generally consumed by the public. Changes in the CPI from time to time illustrate the level of increase (Inflation) or the level of decrease (Deflation) of goods and services for daily household needs. The rate of change in the CPI (Inflation/Deflation) that occurs, in itself reflects the purchasing power of the money used by the community to meet their daily needs. The higher the inflation, the lower the value of money and the lower its purchasing power (Daditi, 2018). The development of inflation also has an impact on changes in the value of assets and liabilities, as well as the value of business contracts/transactions. CPI/Inflation is an indicator of the movement between demand and supply in the real market, also closely tied to changes.

2. Theory of Money Supply

Based on the theory of Keynes theory derived from Cambridge's theory, Keynes put forward something very different from the classical theory. The difference lies in another function of money, where in the classical theory of money is defined as a means of exchange, but Keynes emphasized that in addition to functioning as a means of exchange money also has a function as a store of value23. This theory is then known as the Liquidity Preference theory.

Keynesian also disagreed with the monetarist view of the velocity of money is considered stable or constant. Keynes considers the rate of circulation of money in society can not be considered constant, instead the rate of circulation of money in society according to Keynesian is unstable, because of the demand for money for the purpose of large speculation. According to Keynes, the demand for money for speculation purposes confirms that the function of money is not only as a medium of exchange but also as a store of value.

3. Interest Rate

The interest rate is the payment made for the use of money or the amount to be paid per unit for the cost of borrowing money. Interest rates affect an individual's decision on whether to spend more money or keep the money in the form of savings, real objects such as houses, land machinery, and merchandise where those that provide higher interest rates will be more desirable.

4. Gross Domestic Product

The GDP data used in this study is GDP in the Expenditure sector. Gross Domestic Product (GDP) is the value of goods and services produced within the country concerned within a certain period. The interpretation of this statement indicates that what will be calculated in the GDP category is the product or output in the form of goods and services in an economy produced by inputs or factors of production owned by citizens of the country concerned as well as with foreign nationals who live geographically in that country (Suntoyo, 2014).

5. Rates

Aristotle defined exchange rate (value in exchange) as the ability of goods to be exchanged for other goods in the market. Exchange rate in financial management is defined as a level of currency that will be exchanged with other currencies. The exchange rate in a simple society can be determined by the amount and amount of productivity or human labor in producing a good or service.

According to David K. Elteman, et al defines the exchange rate as a price of a currency based on other currencies. Meanwhile, according to M. Faisal, the exchange rate is the price of one currency expressed against another currency. Simply put, the exchange rate can be referred to as the level of value conditions of one currency against another.

According to (Mankiw, 2006), the exchange rate is the price of the currency used by residents of the country to trade with each other. Meanwhile, according to Abimanyu, the exchange rate is the price of a currency relative to the currency of another country, and because this exchange rate includes two currencies, the equilibrium point is determined by the supply and demand of both currencies. So it can be concluded that the exchange rate is the price of the value of a country's currency against other countries, and is carried out for exchange transactions used in conducting trade transactions, the exchange rate between two countries where the exchange rate is determined by the supply and demand of both currencies. The objectives of monetary policy are basically to achieve economic growth, price stability, interest rates, and balance of payments, as well as achieving employment opportunities. One of the monetary policies that can be used to control the inflation rate is to maintain the stability of the exchange rate. In an open economy, foreign currency is needed for exchange. The US dollar exchange rate is the currency used as a means of international transactions by almost all countries. This is because the US dollar rate is a convertible currency, which can be accepted and recognized by the whole world as a means of payment.

RESEARCH METHOD

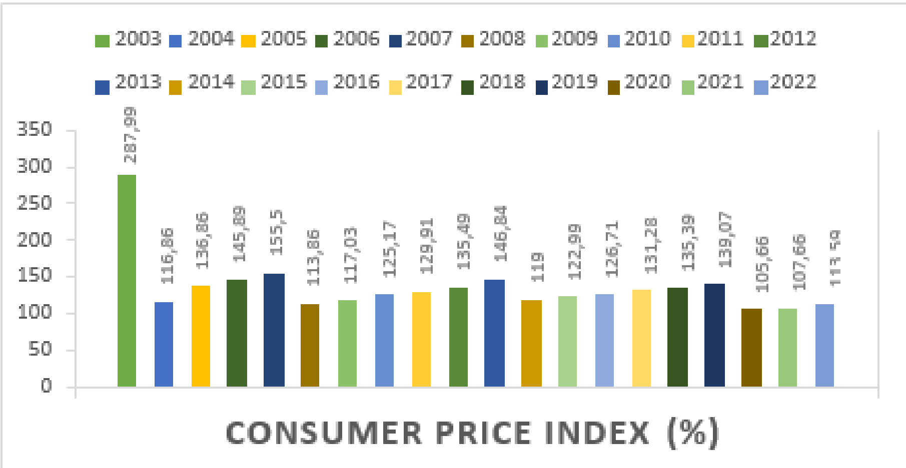
This study is a descriptive qualitative study with a literature study method through literature studies sourced from journals of previous research results (Kurniawan, 2014) related to the title, also through access to data obtained from the website as an information publication. Descriptive qualitative study can be interpreted that the researcher is the key instrument where data collection techniques are carried out by combining and analyzing data inductively (Sugiyono, 2012) so as to produce descriptive data such as narrating the results of interviews and or observations.

RESULTS AND DISCUSSION

1. Results

1.1. Consumer Price Index

Consumer price index (CPI) is a statistical measure used to measure the average change in the prices of goods and services consumed by households within a certain period of time. The CPI aims to reflect changes in consumer purchasing power as well as the level of Inflation or Delation in a country. The CPI is calculated by comparing the prices of a group of goods and services in a given period (usually referred to as the "base year") with prices in another period (usually called the "comparison year"). The percentage difference between these two periods is then used to determine the index, which gives a picture of the overall direction of price changes.



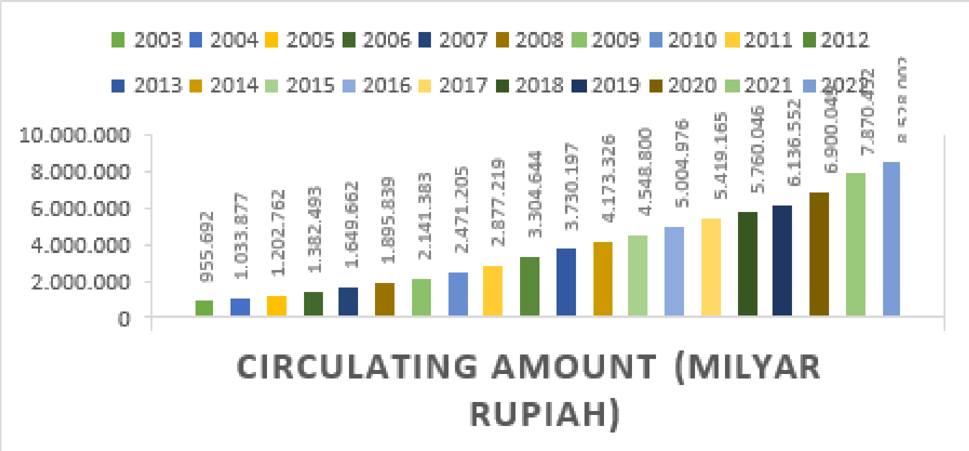
Source: Badan Pusat Statistik

Figure 1. Consumer Price Index Graph

In Figure 1 the movement of the Consumer Price Index experienced a good increase and did not experience large fluctuations. The Consumer Price Index in Indonesia experienced a sharp increase in 2003 which amounted to 287.99 percent of the CPI level that occurred in 2003 illustrating that in 2003 the average price of goods and services consumed by households was in the price range of 289.99 percent. In 2003 when compared to price developments in 2022, the level of the Consumer Price Index in Indonesia was lower at 133.59 percent, which illustrates that the Consumer Price Index in Indonesia decreased.

1.2. Money Supply

The data used in this study are sourced from Bank Indonesia for the period 2003-2022. Money supply is one of the important indicators in understanding the economic activity of a country. Money supply can affect inflation rates, aggregate demand, and currency stability. Analysis of the money supply is also used by institutions such as the central bank to set monetary policy.



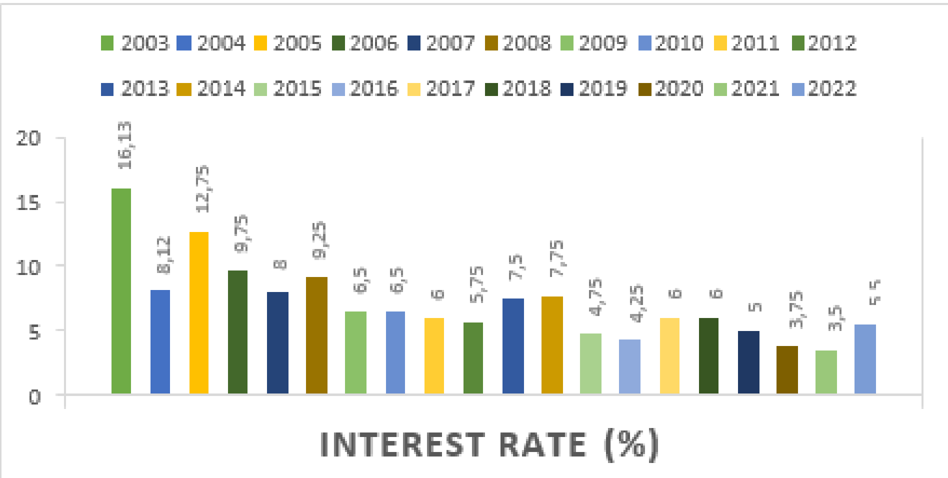
Source: Bank Indonesia

Figure 2. Graph of Money Supply

In Figure 2 the movement of the Money Supply experienced development from 2003-2022 an increase occurred from year to year, the amount of money in circulation in 2003 amounted to 955,692 billion rupiah and continued to increase until 2022 with the money supply of 8,528,022.31 billion rupiah. The increase in demand can be said that the level of liquidity is sufficient to meet the needs of the economy in all regions of Indonesia.

1.3. Interest Rate

The data used in this study comes from the Central Bureau of Statistics for the period 2003-2022. Interest rates are fees or rewards charged on loans or investments. In general, interest rates are a percentage of the amount of money borrowed or invested and must be paid in addition to the lender or investor.



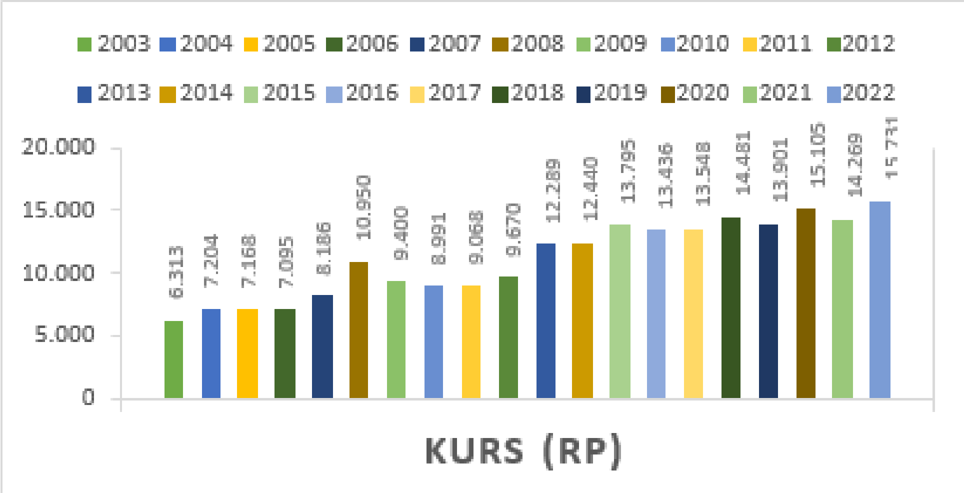
Source: Central Bureau of Statistics

Figure 3. Interest Rate Chart

In Figure 3, the movement of interest rates from year to year fluctuates. In 2003 the interest rate that occurred was 16.13 percent then in 2004 the amount was 8.12 percent then the interest rate increased in 2005 by 12.75 percent, and this figure decreased in 2022 which amounted to .5.50 percent.

1.4. Gross Domestic Product

Gross Domestic Product is the net value of final goods and services produced by various activities in a region within a certain period. The data used in this study comes from the Central Bureau of Statistics, the data used is the GDP of the Expenditure Sector for the period 2003-2022.



Source: Bank Indonesia

Figure 4. Exchange Rate Chart

The exchange rate that occurs in Indonesia continues to increase from year to year, the exchange rate in 2003 amounted to 6,313.04 rupiah and continued to increase until 2022 with an exchange rate of 15,731.00 rupiah.

2. Discussion

There is a close relationship between Money Supply and Consumer Price Index. When the Money Supply increases, there tends to be an increase in the demand for goods and services from the public. This can lead to inflationary pressures that ultimately affect the increase in the level of the Consumer Price Index (AMIR, 2020).

A close relationship also exists between Interest Rates and the Consumer Price Index. Changes in interest rates can affect the level of inflation and lead to movements in the Consumer Price Index (Cristanti et al., 2020).

Furthermore, a high expenditure sector GDP indicates an increase in economic activity, which in turn can increase consumption demand. If consumption demand increases, this can lead to an increase in the price of goods and services, which is reflected in the increase in the CPI (Aji & Mukri, 2020).

And there is a close relationship between the Exchange Rate and the Consumer Price Index. Changes in currency exchange rates can affect the cost of imports and exports, and can affect the prices of domestic goods and services (Suarsih et al., 2016).

CONCLUSIONS AND SUGGESTIONS

Based on the research results that have been presented in the previous chapter, it is concluded that the money supply, interest rates, gross domestic product and exchange rates have a close relationship with the consumer price index variable in Indonesia.

The government can implement policies to maintain price stability of goods and services that are important in the Consumer Price Index. This can be done through close supervision of price fluctuations then can maintain the stability of the Consumer Price Index in each period.

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