

Original Article

Detection of Inflation Rate in Jokowi Era in Indonesia

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Abstract: Almost every country experiences a complex inflation problem, and Indonesia is one of them. Because uncontrolled inflation can hinder a country's progress, the inflation rate has a significant impact on its economic growth. This research uses a quantitative approach with secondary data used in this research is time series data from 2004 to 2023, and the statistical calculation tool used is SPSS. The method applied is the Difference Test, which has the aim of comparing the inflation rate between the SBY and Jokowi administrations. The results showed a significant difference in the inflation rate during the SBY and Jokowi administrations.

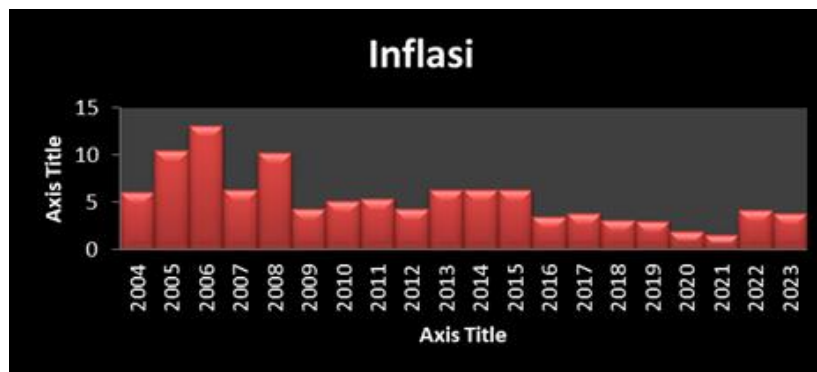
Keywords: Inflation, Economic Growth, SBY and Jokowi.

I. INTRODUCTION

Inflation remains a serious issue in many countries, including ours and has been one of the major concerns in the economy throughout the ages (Purnama, 2015). Inflation is the phenomenon in which prices in an economy increase (Sandono, 2016). High inflation can cause economic instability, reduce the desire to save and invest, stop efforts to increase exports, stop economic growth, and increase unemployment (Rizki, 2012). However, inflation will not be a problem if it is accompanied by the availability of necessary commodities and balanced by a greater increase in income levels (Harjunata & Mauna, 2016).

Meanwhile, a drop in inflation below 10% could boost economic growth. At the same time, high inflation can have a detrimental impact on the economy, as rising prices can incentivize entrepreneurs, which in turn encourages production expansion. High inflation, especially in the long run, can lead to an increase in the price of domestic products, making them more expensive than imported products (Karim, 2014).

The end of 2014 marked the inauguration of Joko Widodo as the 7th president of Indonesia. One of his main priorities as president is to keep the inflation rate under control. In addition, President Jokowi believes that controlling inflation has considerable significance, as Gross Domestic Product (GDP) growth that is not proportional to the inflation rate will be in vain (Sundoro, 2021).



Source: Inflation Data during the SBY Presidential Period and the Jokowi Presidential Period (WorldBank, 2020).

Figure 1: Inflation Chart during President SBY's Term and President Jokowi's Term

From the graph above, it can be seen that during SBY's administration, the inflation rate in 2005 experienced a marked increase compared to the previous year until the peak inflation in 2006 of 13.11%. This was caused by global economic imbalances and an increase in fuel prices in 2005 (Hakim & Giovani, 2012). However, inflation declined in 2007 thanks to the consistent and prudent use of monetary and fiscal policies that allowed a balance between efforts to promote economic growth and maintain macro stability. Unfortunately, in 2008, inflation increased again due to the global economic crisis (Permatasari, 2017). However, in 2014, inflation continued to decline at 6.39% until 2023 at 3.91%. When compared to the government of Mr. SBY, in the government of Mr. Jokowi inflation tends to decline from year to year.



II. LITERATURE REVIEW

A) Inflation

According to (BPS Konsep, 2023), inflation is a situation in which the prices of goods and services continue to increase. When there is an increase in the prices of products and services in the country, there is an increase in inflation. (Soesastro, 2005) says inflation is a condition that arises due to an imbalance between demand and availability of goods, if demand is greater than availability, the difference is greater, the greater the risk of inflation for the economy.

Sustained price increases lead to scarcity of products and services, while customers have to spend more money to get the same amount of products and services. This results in a decrease in the purchasing power of a currency as its value is eroded (Rozalinda, 2014). Such a situation can worsen overall economic conditions and may also destabilize a country's politics (Fahmi, 2010).

a. Theories of Inflation

i) Theories of Quantity

Based on this theory, an increase in the amount of money in circulation in both cash and demand deposits is not accompanied by an increase in the supply of goods and services, as well as people's belief that rising prices will cause inflation in the future (Boediono, *Ekonomi Makro, Seri Sinopsis Pengantar Ilmu Ekonomi no.2*, 1985). In this theory, the role of the Money Supply (JUB) and psychological factors are very important in relation to price increases or expectations of the inflation process. Inflation can only occur if the money supply increases, both in the form of cash and demand deposits. Otherwise, inflation will naturally stop. Psychological factors, such as people's beliefs about future price increases, also affect inflation (Boediono, *Ekonomi Makro Edisi 4*, 2001).

ii) Theories of Keynes

Opinion (Putong, 2008) Inflation occurs because people try to exceed their economic capacity. In this perspective, inflation occurs as a result of competition between social groups trying to get a larger share than society can provide. Ultimately, the process of competition results in a situation where society's need for goods always exceeds the availability of those goods. These social groups consist of three segments, namely the government, private businesses, and labor unions (Ulfa, 2016).

iii) Theories of Structuralist

This theory emphasizes inflationary factors stemming from the structural unsoundness of the economy, especially the limited supply of foodstuffs and export goods. Due to these structural constraints, the growth of food production is slower than the growth of demand, resulting in rising food prices and limited foreign exchange. As a result, there are price increases in other goods, resulting in relatively stable inflation, especially if there is no progress in the foodstuff and export goods industries (Boediono, *Ekonomi Moneter*, 1998). According to (Latumaerissa, 2015) sometimes, the structural factors that are considered as the main root causes of the inflationary process are not entirely structural. Often, such inflation can be caused by price policies or monetary policies implemented by the government itself.

b. Impact of Inflation

In general, income distribution, allocation of factors of production, and national products can affect inflation. According to (Huda, 2018), the impact of inflation on the national economy includes a decrease in investment, a boost to the interest rate, a failure in the implementation of development, economic uncertainty in the future, an increase in unemployment, a balance of payments deficit, a decrease in the level of life and welfare of the community, and a decrease in the competitiveness of national products. Inflation can have positive effects, such as increasing production and creating new job opportunities, but in Indonesia, this problem is often more negative than positive (Prasetyo, 2009).

III. METHOD

A) Type and Source of Data

This research is quantitative, and the purpose of the data analysis is to determine the level of relationship and pattern of influence between two or more variables (Rusiadi, 2023). This study uses a difference test to compare the inflation rate in Indonesia between the SBY administration and the Jokowi administration. The secondary data used in this study are annual timeseries data from the World Bank from 2004 to 2023.

B) Data Analysis Method

a. Difference Test

To evaluate a particular treatment, a t-test is used on one sample and two different observation periods (Pramana & Mawardi, 2012). In this study, we used the Independent Sample T Test. This test is used to evaluate the significance of the difference in the means of the two groups. It also evaluates the effect of the independent variable on the dependent variable.

b. Paired Sample T-Test

Paired sample t-test is used if the data is normally distributed. Opinion (Widiyanto, 2013), One of the testing methods used to evaluate the effectiveness of treatment is the double sample t-test, which shows the difference between the average before and average after treatment.

Paired sample T-test in this study was conducted by researchers to determine the role of the SBY and Jokowi governments in the Detection of the Inflation Rate in the Jokowi Era in Indonesia.

This t-test model is used to examine a before, after, or pre-post research model. The following is the basis for making a decision on whether to accept or reject Ho in this test:

- i) If $t \text{ count} > t \text{ table}$ and probability (Asymp.Sig) < 0.05 , then Ho is rejected, and Ha is accepted.
- ii) If $t \text{ count} < t \text{ table}$ and probability (Asymp.Sig) > 0.05 , then Ho is accepted, and Ha is rejected. The multiple-sample t-test is conducted as follows:
 - 1) Ho: there is no difference between SBY-era inflation and Jokowi-era inflation.
 - 2) Ha: there is a difference between SBY-era inflation and Jokowi-era inflation.
 - 3) Ho is rejected if the probability value < 0.05 , meaning that there is a difference between SBY-era inflation and Jokowi-era inflation.
 - 4) Ho is accepted if the probability value > 0.05 , meaning that there is no difference between SBY-era inflation and Jokowi-era inflation.
 - 5) Conclusions are drawn based on hypothesis testing.

IV. RESULT AND DISCUSSION

A) With this assumption, the conditions that apply to this t-test model are adjusted to the hypothesis conditions:

Ho: There is no significant difference between SBY-era inflation and Jokowi-era inflation in Indonesia.

Ha: There is a significant difference between SBY-era inflation and Jokowi-era inflation in Indonesia.

B) The following are the results of data processing of inflation in Indonesia using the SPSS 25 program:

Table 1: T-test Output in Indonesia

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Inflasi Era SBY	7.1830	10	3.00572	.95049
	Inflasi Era Jokowi	3.7920	10	1.59928	.50574

Table 2: Paired Samples Correlations

Paired Samples Correlation				
		N	Correlation	Sig.
Pair 1	Inflasi Era SBY & Inflasi Era Jokowi	10	.250	.485

Table 3: Paired Samples Test

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Inflasi Era SBY – Inflasi Era Jokowi	3.39100	3.03048	.95832	1.22313	5.55887	3.538	9	.006

C) The following are the criteria for acceptance and rejection of the hypothesis:

- a. Ho is rejected, and Ha is accepted if sig (2-tailed) ≤ 0.05 .
- b. Ho is accepted, and Ha is rejected if sig (2-tailed) > 0.05 .

D) The following results were obtained based on the output of the SPSS 25 program mentioned above:

a. The difference between Inflation during SBY's time and Inflation during Jokowi's time in Indonesia

In Indonesia, the average inflation rate was 7.18% under SBY but fell to 3.79% under Jokowi. The sig (2-tailed) value of inflation is 0.00, which means $< \alpha = 0.05$, so Ho is rejected, and Ha is accepted based on the hypothesis acceptance and

rejection criteria above. This shows that inflation was significantly different during SBY's time and inflation during Jokowi's time.

From the results during Jokowi's reign, there was a significant decline in the inflation rate in Indonesia. In accordance with an opinion (Sundoro, 2021) which says from December 2014 to December 2018, the downward trend in inflation continued. According to the report (BPS, 2023) during the two months after Jokowi took office as president, the inflation rate in Indonesia reached 6.39%, but by the end of 2023, the inflation rate dropped to 3.91%. This decline can be attributed to the policies implemented by Jokowi during his tenure as president. One policy that can affect inflation is price control. When compared to the SBY administration, inflation tended to increase from 2005 to 2008 due to the global economic crisis, in accordance with the statement (Permatasari, 2017).

V. CONCLUSION AND SUGGESTION

A) Conclusion

The inflation rate in Indonesia experienced a sharp decline during Jokowi's administration, compared to SBY's administration, which was usually higher. This comparison shows that there is a big difference between the Jokowi and SBY administrations in Indonesia. The decline in inflation during Jokowi's administration is evidence that a consistent and prudent role in monetary and fiscal policy can keep inflation stable in Indonesia.

B) Suggestion

- a. It is hoped that the Indonesian government can maintain a balanced inflation rate. In addition, the next presidential administration needs to evaluate the economic policies that have been implemented previously, measure their effectiveness in controlling inflation in Indonesia, and see how the previous president controlled inflation during his reign to be adapted even better.
- b. Future researchers are expected to explore this model by testing using other methods, increasing the number of observations, and expanding the scope of research by adding other variables that affect inflation. It is hoped that the results of this study can be used as a reference for further research.

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