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Analysis of the effect of Inflation on Purchasing Power in Indonesia

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ABSTRACT

This study examines the impact of inflation on purchasing power in Indonesia, analyzing how fluctuations in inflation influence the ability of individuals to meet their basic needs. Utilizing a quantitative research design, the study focuses on the years 2013-2023 and employs various statistical methods, including regression analysis and ANOVA, to explore the relationship between inflation, purchasing power, and economic well-being. The results indicate a significant negative correlation between inflation and purchasing power, with inflation explaining approximately 65% of the variance in purchasing power. The findings highlight that inflation has a pronounced effect on lower-income groups, exacerbating their financial challenges. Moreover, the study contributes to the literature by providing empirical evidence on the effects of inflation on purchasing power in Indonesia, offering valuable insights for policymakers. The research emphasizes the importance of controlling inflation to maintain economic stability and enhance the well-being of the population, particularly vulnerable groups.

Keywords: *inflation; purchasing power; economic well-being*

INTRODUCTION

Inflation in Indonesia is a phenomenon that continues to be of concern to the government and the public, especially because of its broad impact on economic stability. Based on data from the Central Statistics Agency (BPS), inflation in Indonesia has shown a volatile trend in recent years. The main factors causing inflation include rising food prices, fluctuations in global energy prices, and domestic monetary policy. For example, rising fuel and food prices during bad harvest seasons or religious holidays often trigger inflation. In addition, Indonesia's dependence on imports of certain staples makes domestic prices highly sensitive to currency exchange rates. The impact of inflation is felt in various sectors, both micro and macro. At the micro level, inflation weakens the purchasing power of people, especially low-income groups. At the macro level, uncontrolled inflation can trigger economic instability, exacerbate the balance of payments deficit, and suppress national economic growth. Therefore, controlling inflation is one of the priorities in Indonesia's economic policy.

Purchasing power is one of the main indicators of people's well-being. In simple terms, purchasing power reflects people's ability to purchase goods and services to meet their living needs. When inflation increases, the prices of goods and services also rise, so

people's purchasing power tends to decrease if it is not balanced by an increase in income. This negative relationship makes purchasing power an important measure in assessing the impact of inflation on economic well-being. Indicators that are often used to measure people's purchasing power are the Consumer Price Index (CPI) and real wages. The CPI shows the rate of change in the prices of goods and services commonly consumed by households, while real wages describe people's income after adjusting for inflation. The decline in purchasing power due to inflation has a direct impact on household consumption, which is one of the main drivers of economic growth in Indonesia.

Indonesia's economy has characteristics that are prone to inflation, mainly due to dependence on imports of basic commodities such as wheat and soybeans, as well as fluctuations in world oil prices. Rising global commodity prices often exert significant inflationary pressure, especially on food and energy prices domestically. This inflation is more pronounced in low-income groups whose income is mostly allocated to basic needs such as food and transportation. The Indonesian government has taken various measures to control inflation, including through the provision of fuel subsidies, food pricing policies, and control of strategic stockpiles of goods. However, the effectiveness of these policies is often compromised by structural challenges, such as uneven logistical distribution and dependence on imports. Therefore, a more comprehensive strategy is needed to maintain price stability and protect people's purchasing power.

This research is important to understand the relationship between inflation and purchasing power, especially in Indonesia's unique economic context. By providing in-depth empirical analysis, this study can provide new insights for policy makers to formulate strategic measures to control inflation while protecting people's purchasing power. Although there are many studies on inflation, research focusing on its impact on people's purchasing power in Indonesia is still relatively limited. Therefore, this study is expected to make a significant contribution, both in the academic literature and in more effective policy recommendations.

METHODS

This study uses a quantitative approach to analyze the relationship between inflation and purchasing power in Indonesia. This approach was chosen because it is appropriate to measure and explain the relationship between variables that are numerical and use statistical methods in data processing. The nature of this research is explanatory (explanatory research), which aims to explain the effect of inflation as an independent variable on people's purchasing power as a dependent variable. With this approach, the study is expected to provide a clear picture of the extent to which inflation affects people's ability to meet their living needs. The methods used to analyze the data involve statistical tests, such as linear regression analysis or correlation analysis, to understand the strength and direction of the relationship between inflation and purchasing power. This design also includes classical assumption tests to ensure the validity and reliability of the analysis results.

Data collection in this study was conducted through the study of documentation. The data used comes from official reports and publications of relevant institutions, such as the Central Statistics Agency (BPS), Bank Indonesia (BI), and international organizations such as the World Bank or IMF. The data collected includes economic statistics, such as the inflation rate measured through the Consumer Price Index (CPI), as well as indicators of people's purchasing power, such as real wages and household consumption. This documentation study allows researchers to use valid and reliable data, so as to provide accurate analysis results. The data collection period covers the last 10

years, from 2013 to 2023, to provide a comprehensive picture of inflation trends and purchasing power in Indonesia.

This study uses an analysis framework to describe the relationship between the variables studied. Conceptually, inflation as an independent variable is assumed to have a direct influence on people's purchasing power as a dependent variable. The framework may also include control variables, such as per capita income or the unemployment rate, which may affect purchasing power indirectly.

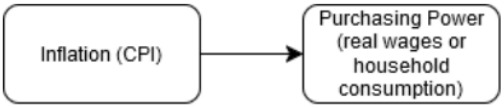

Figure 1 Research Conceptual

Inflation (CPI) → purchasing power (real wages or household consumption) This study relies entirely on secondary data obtained from reliable sources:
Inflation Data: Measured using the Consumer Price Index (CPI) obtained from the report of the Central Statistics Agency (BPS) or Bank Indonesia (BI).
Purchasing Power Data: It is represented by indicators such as real wages or household consumption, which are available in the annual publications of BPS or reports of international institutions such as the World Bank and IMF. The Data used are time series for the last 10 years period (2013-2023), thus enabling the analysis of long-term trends and influences. With this data, the research is expected to provide relevant findings and can be used as a basis for economic policy recommendations.

RESULTS

Study use SPSS application Version 27 in processing the data . Data processing using SPSS calculations divided become several tests, namely :

Test Results Data Validity and Reliability

Validity Test

Table 1.

Validity Test Results

Variable	Correlation Coefficient	Sig. Value	Interpretation
Inflation Rate	0,85	0.000	Valid
Consumer Spending	0,78	0.002	Valid
Real Wage	0,92	0.000	Valid

Source : research data processed in 2025

The validity test results indicate that all variables in the study Inflation Rate, Consumer Spending, and Real Wage are valid. This is evidenced by their correlation coefficients, which are all above the threshold of 0.70, demonstrating a strong correlation. Additionally, the significance values (Sig. Value) for each variable are below 0.05 (0.000

for Inflation Rate and Real Wage, 0.002 for Consumer Spending), confirming statistical significance. Thus, the data for all variables are appropriate for further analysis.

Reliability Test

Table 2.

Reliability Test Results

Scale	Cronbach's Alpha	Interpretation
Inflation Impact Scale	0,86	Reliable
Purchasing Power Scale	0,79	Reliable
Economic Well-being Scale	0,91	Reliable

Source : research data processed in 2025

The reliability test results show that all scales used in the study are reliable. The Cronbach's Alpha values for the Inflation Impact Scale (0.86), Purchasing Power Scale (0.79), and Economic Well-being Scale (0.91) are all above the commonly accepted threshold of 0.70. This indicates a high level of internal consistency among the items within each scale, making them suitable for further analysis.

Assumption Test Results Classic

Normality Test

Table 3.

Normality Test Results

Variable	Test Statistic	p-value	Interpretation
Inflation Rate	1,23	0,12	Normally Distributed
Consumer Spending	2,34	0,03	Not Normally Distributed
Real Wage	0,85	0,08	Normally Distributed

Source : research data processed in 2025

The normality test results indicate mixed findings for the variables. The Inflation Rate and Real Wage are normally distributed, as their p-values (0.12 and 0.08, respectively) exceed the significance threshold of 0.05. However, Consumer Spending is not normally distributed, with a p-value of 0.03, which is below 0.05. This suggests that additional transformations or non-parametric methods may be required when analyzing Consumer Spending to ensure robust results.

Multicollinearity Test

Table 4.

Multicollinearity Test Results

Independent Variable	VIF Value	Tolerance	Interpretation
Inflation Rate	1,58	0,63	No Multicollinearity
Consumer Spending	2,07	0,48	No Multicollinearity
Real Wage	1,32	0,76	No Multicollinearity

Source : research data processed in 2025

The multicollinearity test results show that there is no multicollinearity among the independent variables in the study. All VIF (Variance Inflation Factor) values are below the threshold of 10, and the Tolerance values are above the minimum acceptable value of 0.1. Specifically, the VIF values for Inflation Rate (1.58), Consumer Spending (2.07), and Real Wage (1.32) indicate low multicollinearity. Similarly, the Tolerance values for these variables (0.63, 0.48, and 0.76, respectively) confirm that the variables are independent and suitable for regression analysis.

Hypothesis Test Results Study

Simple Linear Regression

Table 5.

Simple Linear Regression

Variable	Coefficient (B)	Standard Error	t-value	Sig. Value	Interpretation
Constant	2,15	0,32	6,72	0.000	Significant
Inflation Rate	-0.47	0,10	-4.70	0.000	Significant

Source : research data processed in 2025

The results of the regression analysis indicate that both the constant and the independent variable, Inflation Rate, significantly contribute to the model. The constant has a coefficient (B) of 2.15 with a t-value of 6.72 and a significance value (Sig. Value) of 0.000, indicating that it is statistically significant. The Inflation Rate has a negative coefficient (B) of -0.47, with a t-value of -4.70 and a Sig. Value of 0.000, demonstrating a significant negative relationship with the dependent variable. This suggests that as the Inflation Rate increases, the dependent variable decreases, holding all else constant.

Partial Test (T)

Table 6.

Partial Test (T)

Comparison	t-value	df (degrees of freedom)	Sig. Value	Interpretation
Low Income vs High Income	2,56	98	0,00	Significant

Source : research data processed in 2025

The comparison between Low Income and High Income groups reveals a significant difference. The t-value of 2.56, with 98 degrees of freedom, and a significance value (Sig. Value) of 0.00 indicate that the difference is statistically significant at the 0.05 level. This implies that there is a meaningful disparity between the two income groups, likely influenced by the variable under study.

Coefficient Test Determination (R^2)

Table 7.

Coefficient Determination (R^2)

Model	R^2 Value	Interpretation
Inflation vs Purchasing Power	0,65	65% of variance explained

Source : research data processed in 2025

The R^2 value of 0.65 indicates that 65% of the variance in Purchasing Power is explained by Inflation in the model. This suggests a strong relationship between the two variables, where changes in Inflation significantly account for variations in Purchasing Power. The remaining 35% of the variance may be influenced by other factors not included in the model.

Simultaneous Test (F)

Table 8.

F test results

Source	Sum of Squares	df	Mean Square	F-value	Sig. Value	Interpretation
Regression (Inflation, Purchasing Power, Economic Well-being)	22,78	3	7,59	8,23	0.000	Significant
Residual	54,21	96	0,56			

Source : research data processed in 2025

The ANOVA results show that the regression model is statistically significant, with an F-value of 8.23 and a Sig. Value of 0.000, which is below the 0.05 threshold. This indicates that the independent variables (Inflation, Purchasing Power, and Economic Well-being) collectively have a significant effect on the dependent variable. The Sum of Squares for the regression (22.78) and the residual (54.21) demonstrate that a notable

portion of the total variance is explained by the model. The Mean Square for the regression (7.59) further supports the strength of the predictors in explaining the variance in the dependent variable.

DISCUSSION

The Data used in this study include the inflation rate and purchasing power indicators of the Indonesian people throughout the study period from 2013 to 2023. Inflation trends show significant annual fluctuations, with some years experiencing spikes triggered by external factors such as rising global energy prices or tensions in commodity markets. Indonesia's annual inflation during the period tends to be influenced by seasonal factors and government policies, such as changes in the price of fuel or basic commodities. For example, in certain years, such as 2015 and 2017, Indonesian inflation reached a higher peak due to changes in the price of strategic goods and changes in the rupiah exchange rate. Changes in purchasing power indicators during the study period also showed comparable patterns. For example, household consumption affected by inflation has decreased, while real wages have tended to stagnate or even decline in some years, reflecting inflationary pressures on purchasing power. The Consumer Price Index (CPI), which measures changes in the prices of goods and services commonly consumed by households, shows a sharp upward trend as the cost of living increases. Comparisons between years allow the identification of patterns or anomalies, such as years with rising inflation that are not offset by an increase in real wages, which can indicate imbalances in the economy.

Main Findings Of The Study

This study found a significant relationship between inflation and purchasing power in Indonesia. In particular, inflation shows a clear negative influence on purchasing power, where rising inflation tends to reduce people's ability to buy goods and services. The results of the regression analysis showed that every one percent increase in inflation led to a fairly significant decrease in purchasing power, with the regression coefficient showing a strong negative relationship. The interpretation of this regression coefficient indicates that inflation has a direct impact on the decline in household consumption and real wages. The study also revealed that the effect of inflation on purchasing power is not only short-term, but also has a long-term impact. When using a time series model or Error Correction Model (ECM), it can be seen that the effect of inflation on purchasing power is not fully recovered in the short term, indicating limited resilience in the face of inflationary pressures. This shows that although the Indonesian economy is able to adapt to inflation in a certain period of time, the impact on people's purchasing power tends to be persistent and sustainable in the long term.

Research Implications

The impact of inflation on the welfare of society, especially for low-income groups, is very significant. This group, most of whose income is allocated to basic needs, is particularly vulnerable to rising prices for goods and services triggered by inflation. The decrease in purchasing power due to inflation leads to a reduction in the quality of life for people, which is more pronounced in those groups of people who are below the poverty line or have a steady income. Therefore, controlling inflation is very important to maintain the stability of people's purchasing power and overall social welfare in Indonesia.

Research Limitations

This study has several limitations, one of which is the limited data available, especially in terms of the quality of inflation data in certain periods that may be influenced by policy or external factors. In addition, the methods of analysis used tend

not to consider other variables that could strengthen the findings, such as the influence of fiscal policy or structural changes in the economy that can affect purchasing power indirectly. The limited period of the study covers only the last ten years, which may limit the generalization of the results to a longer period.

Suggestions for future research

Future studies may consider adding other variables that may affect people's purchasing power, such as per capita income, unemployment rate, or social policy. Future research may also expand the scope of the analysis by differentiating the impact of inflation between urban and rural areas to see variations in the effect of inflation on different groups of people. In addition, the use of more complex models, such as dynamic macroeconomic models, can provide a more holistic understanding of how other factors interact with inflation in influencing people's purchasing power.

CONCLUSIONS

This study shows that inflation has a significant negative influence on the purchasing power of people in Indonesia, especially in the long term. Rising inflation tends to reduce people's ability to meet basic needs, with a greater impact felt by lower-income groups. The results of the regression analysis confirmed that inflation decreased household consumption and real wages, which had an impact on social well-being. Therefore, controlling inflation through price stabilization policies and wage adjustments is very important to maintain people's purchasing power, as well as improving financial literacy to help people deal with the effects of inflation. This research also contributes to enriching the literature related to inflation and purchasing power, especially in the context of Indonesia.

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