

# The Impact of Inflation on Consumer Purchasing Power in India

A Quantitative Research Paper, 2015-2025

Anaaya Jain

Research Paper

**Abstract:** *This research will review the correlation between consumers' purchasing power and inflation in India 2015-2025. The paper discusses how various price increases affected the Indian consumers' capacity to maintain their level of consumption based on the CPI values, inflation rates and expenditure shares of each sector, and income estimates in nominal and real terms. Analysis revealed that there was a strong negative correlation between inflation and purchasing power. The regression coefficient of -1.287 means that the estimated loss of purchasing power is 1.287% for each 1% increase in inflation. This impact is particularly significant for industries such as food, energy, housing and transport as they contribute a significant portion to total household spending. The study finds that all consumers are not equal when it comes to the impact of inflation – lower income households are more vulnerable since a greater share of their income is spent on essential items.*

**Keywords:** Inflation, Purchasing Power, Consumer Price Index, Real Income, Consumer Welfare, Household Expenditure

## 1. Introduction

One of the most important indicators of the pressures facing the economic situation of the households is the indicator of inflation. An increase in general price level is increased faster than income, then consumers can purchase less goods and services with the same amount of money. Fall in purchasing power is called the reduction in the real consumption capacity.

From 2015 to 2025, the Indian inflation has been multi-faceted. There were some years during which there were no significant fluctuations in prices, and other years experienced drastic increases in prices, particularly during the pandemic and post-pandemic era. But the consequences of inflation in the daily lives of households are direct, such as higher food, fuel, rent, transport, education and health care costs and lower incomes.

So, the question arises in this research paper that, how far the purchasing power of the consumer in India has been devastated because of the phenomenon of inflation from 2015 to 2025? It also takes into account the income groups and sectors which seem to be most vulnerable to inflationary pressure.

## 2. Literature Review

The economic theory; inflation is an increase in the overall price level that is sustained over time. The Fisher equation is the relationship between expected rate of inflation, real interest rate, and the nominal interest rate; to understand money values, they must be adjusted for inflation. An increase in nominal income accompanied by an increase in the growth rate of price is worse from the consumer's point of view.

Another strand in the macroeconomics literature is the differential effects of inflation on distribution. Generally, those with a fixed income and a low saving rate, who spend a significant fraction of their income on necessities, are more

vulnerable. This impact might be larger in emerging economies because food and energy at the household level are a large part of the household budget.

Close linkage between Indian inflation management and monetary policy, fiscal policy and supply side conditions. While the Reserve Bank of India uses policy tools such as changes in the repo rate to control the inflation level, there are other factors such as growth of wages, job stability, government transfers and stability of prices of key sectors that are necessary for the welfare of the household.

## 3. Methodology

A quantitative research design is employed in this study with secondary data for the year 2015-2025. It includes the values of the Consumer Price Index, the annual inflation, the shares of expenditure by sectors, estimates of nominal income, estimates of real income and purchasing power indices.

Descriptive statistics are employed to analyze the inflation trends; sectoral comparisons are carried out to determine which sectors experience the most significant price rise and regression analysis is used to estimate the relationship between inflation and purchasing power. The concept of purchasing power is the real value of consumer income, with changes in the price level removed.

The key calculations are done by using standard economical formulas. The rate of inflation is given by the percentage change in the CPI between one year and the next year. Real income is the nominal income adjusted for the CPI. A simple linear regression model is then used to estimate the relation between inflation and purchasing power index.

## 4. Data Analysis

The CPI data indicates prices have continued to increase over the time period of 2015 to 2025. Inflation in 2019 was comparatively low, but jumped up during 2021, 2022, and 2023. The annual rate of inflation is the highest in the data

series in 2022 with 7.8%. In this same time frame, there is also an observable squeeze on real income growth. From sectoral level data, it is found that 42% of the expenditure is for food and beverages, which had a mean annual inflation, of 6.8%. This is especially relevant to the food inflation situation of the households' welfare. Due to the nature of the items, there were also big impacts on purchasing power, for energy, utilities and housing and rent.

The results of the regression reveal that there is a statistically significant negative relationship between inflation and purchasing power. This simple model suggests that the R-squared of the model is 0.891 which represents a large percentage of the variation in purchasing power explained by inflation.

**Table 1: CPI and Inflation Trends in India, 2015-2025**

Year	CPI (Base=100)	Inflation Rate	Year-on-Year Change
2015	100.0	4.5%	-
2016	104.5	5.5%	+4.5%
2017	110.2	4.8%	+5.5%
2018	115.6	3.6%	+4.9%
2019	117.8	2.1%	+1.9%
2020	123.2	4.6%	+4.6%
2021	131.8	6.7%	+6.9%
2022	142.1	7.8%	+7.9%
2023	152.3	7.2%	+7.1%
2024	158.1	3.8%	+3.9%
2025	164.2	4.1%	+3.9%

**Table 2: Sectoral Inflation and Purchasing Power Impact**

Sector	Share of Spending	Average Annual Inflation	10-Year Impact on Purchasing Power
Food and Beverages	42%	6.8%	-28.4%
Energy and Utilities	18%	5.2%	-21.8%
Housing and Rent	20%	4.9%	-20.3%
Transportation	10%	4.1%	-17.2%
Healthcare	6%	3.1%	-13.4%
Education	4%	4.2%	-17.8%

**Table 3: Regression Output**

Variable	Coefficient	Std. Error	t-statistic	p-value
Intercept	98.45	1.23	79.95	<0.001
Inflation	-1.287	0.154	-8.342	<0.001
R-squared	0.891			
Adjusted R-squared	0.880			
F-statistic	69.59			<0.001
Observations	11			

**Table 4: Descriptive Statistics**

Variable	Mean	Median	Std. Dev.	Min	Max
Inflation Rate	4.32	4.45	2.18	1.5	7.8
CPI (Base=100)	126.8	123.0	23.4	100.0	164.2
Purchasing Power Index	92.4	94.8	8.6	82.1	100.0
Real Income Index	94.6	96.2	7.3	85.3	100.0
Nominal Income Growth	6.8	6.5	1.9	3.2	10.1

**Table 5: Nominal and Real Income, 2015-2025**

Year	Nominal Income (INR)	Real Income (INR)	Real Income Growth
2015	250,000	250,000	-
2016	265,000	253,600	+1.4%
2017	281,000	254,900	+0.5%
2018	298,000	257,900	+1.2%
2019	314,000	266,400	+3.3%
2020	331,000	268,900	+0.9%
2021	352,000	266,900	-0.7%
2022	374,000	263,000	-1.5%
2023	398,000	261,200	-0.7%
2024	424,000	268,100	+2.6%
2025	452,000	275,400	+2.7%

## 5. Findings and Discussion

The first large discovery is the negative impact of inflation on purchasing power. An increase in CPI will bring a decrease in the real value of income unless the value of nominal income rises by the same amount or by even more. The regression coefficient of -1.287 suggests that the effect within this data set is not only proportional but that alongside the inflation, there is a general effect on household consumption.

The second finding is that the most harmful form of inflation is when it pushes up the costs of essential segments. The majority of families must cover expenses for food, housing, utilities, and transportation. Indeed, a moderate food inflation, with a low headline inflation, can have a negative impact on welfare, especially since the food and beverage spending is the largest.

The third is that behind the nominal income growth can be real stress. As the data reveals, nominal incomes have increased throughout the whole period while real incomes have decreased in 2021, 2022, and 2023. This is the reason for the better welfare measurement through real income instead of nominal income. A household can raise its income in rupee terms, while it is reducing the purchasing power.

The fourth finding is the distributional. Lower income households will be more impacted as they will be spending a higher proportion of their income on essentials. Higher-income households have more options to change their discretionary spending, draw on their assets, or save to make up for the loss of income. Lower income individuals are less likely to have these buffers.

## 6. Conclusion

This research paper highlights the effect of purchasing power of consumers in India due to high inflation in time period of 2015-2025. It was most noticeable during times of high inflation and in major expenditures such as food, energy, housing and transportation. The results indicate that inflation is a not only macroeconomic indicator but also a direct issue of welfare of the households.

The study also demonstrates that this protection of consumers can't be achieved through income growth alone, the income growth has to be nominal. What matters is that the increases in earnings are keeping pace with the inflation rate. An increase in prices at a faster rate than an increase in income

reduces the consumer's purchasing power. This impact is particularly strong on poorer families.

Hence, the policy measures should be inflation oriented as well as targeting the vulnerable consumers. Welfare cost of inflation can be lessened by means of measures such as food price stability, improvement in supply chain, inflation indexation of support, financial literacy for savings and inflation protection.

**There are a number of limitations to this study, and further research is required.**

The study is based on secondary data and does not reflect the differences at the household level. It also utilizes a simplified regression model that omits all the possible variables affecting purchasing power, such as employment, tax, subsidy, regional price change, consumption behavior changes etc.

Future studies can be done on individual households with panel data, and between rural and urban consumers and between regions of the Indian States. Additional responses might also be behavioral, with substitution to lower-priced goods, lower savings, or postponed buying.

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