

A Study on Wholesale Price Index in India: Sector-Wise Contribution to Overall WPI

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Abstract

The Wholesale Price Index (WPI) is an important economic indicator used to measure inflation at the wholesale level in India. This journal article examines the sector-wise contribution of major sectors such as Primary Articles, Fuel & Power, and Manufactured Products to the overall WPI during the period 2012–2024. The study is based on secondary data collected from the Office of the Economic Adviser (OEA), Ministry of Commerce and Industry, Government of India. Statistical tools such as Year-on-Year (YoY) growth rate and Compound Annual Growth Rate (CAGR) were used to evaluate sectoral performance and inflationary trends. The findings reveal that Primary Articles recorded the highest cumulative growth due to rising food and raw material prices, while Manufactured Products showed comparatively stable growth. Fuel & Power experienced high volatility due to fluctuations in global crude oil prices and supply chain disruptions. The research highlights the importance of sectoral analysis in understanding inflation dynamics and emphasizes the role of government policies, global commodity prices, and economic conditions in shaping WPI trends. The study provides useful insights for policymakers, researchers, businesses, and economists to understand inflationary pressures and develop strategies for economic stability.

1. Introduction

The Wholesale Price Index (WPI) is one of the most significant indicators used to measure inflation in India. It reflects the average change in prices of goods traded at the wholesale level before they reach consumers. WPI plays an important role in economic planning, policymaking, industrial analysis, and inflation monitoring. It is published by the Office of the Economic Adviser under the Ministry of Commerce and Industry, Government of India.

The WPI consists of three major sectors: Primary Articles, Fuel & Power, and Manufactured Products. Primary Articles include food grains, fruits, vegetables, minerals, and agricultural raw materials. Fuel & Power includes coal, petroleum products, and electricity. Manufactured Products include textiles, chemicals, machinery, metals, and industrial goods. These sectors contribute differently to inflation depending on market conditions, production costs, global demand, and government interventions.

In recent years, the Indian economy has experienced several economic disruptions such as the COVID-19 pandemic, supply chain interruptions, crude oil price fluctuations, and geopolitical tensions. These factors significantly affected wholesale prices and inflationary trends. Therefore, understanding the sector-wise contribution to WPI has become increasingly important for policymakers and businesses.

The present study focuses on analyzing WPI trends from 2012 to 2024 and identifying the sectors contributing most to inflation. The study also highlights the fastest-rising and slowest-rising sectors during the study period.

2. Objectives of the Study

The major objectives of the study are:

1. To analyze the Year-on-Year (YoY) growth rate of major sectors in WPI.
2. To identify the fastest-rising and slowest-rising sectors based on WPI trends.
3. To examine the sector-wise contribution to the overall WPI.
4. To understand the impact of economic and global factors on wholesale prices.
5. To provide suggestions for maintaining price stability and economic growth.

3. Research Methodology

The study is descriptive and analytical in nature. It is based entirely on secondary data collected from reliable government sources such as the Office of the Economic Adviser (OEA), Ministry of Commerce and Industry.

Data Collection

The data for the study were collected from:

- * Office of the Economic Adviser (OEA)
- * Department for Promotion of Industry and Internal Trade (DPIIT)
- * Government reports and economic publications
- * Research articles and journals related to WPI and inflation

Study Period

The study covers the period from 2012–2013 to 2023–2024.

Statistical Tools Used

The following statistical tools were used:

1. Year-on-Year (YoY) Growth Rate

The annual growth rate was calculated using the formula:

$$\text{Annual Growth Rate} = ((\text{Current Year WPI} - \text{Previous Year WPI}) / \text{Previous Year WPI}) \times 100$$

2. Compound Annual Growth Rate (CAGR)

The long-term growth of sectors was measured using CAGR.

3. Sectoral Contribution Analysis

Sector-wise contribution was calculated to determine the influence of each sector on overall WPI.

$$\text{Sectoral Contribution} = (\text{Sector WPI} / \text{Total WPI}) \times 100$$

4. Analysis and Interpretation

4.1 WPI Trends from 2012–2024

The analysis of WPI values reveals significant fluctuations across the three major sectors. Primary Articles recorded the highest cumulative growth during the study period. The WPI value increased steadily from 111.4 in 2012–13 to 183 in 2023–24. The CAGR for Primary Articles was 64.3%, indicating high inflation in food products, minerals, and agricultural commodities.

The rapid increase in prices was mainly caused by:

- * Supply chain disruptions
- * Seasonal variations
- * Rising demand for food products
- * Global commodity price fluctuations
- * Government policies related to agriculture

Fuel & Power

Fuel & Power exhibited extreme volatility during the study period. The WPI growth rate declined sharply during 2015–16 and 2016–17 due to falling global crude oil prices. However, the sector experienced a sharp rise after 2020 because of increasing international oil prices and post-pandemic recovery.

The CAGR of Fuel & Power was 41.9%. This sector was heavily influenced by:

- * International crude oil prices
- * Exchange rate fluctuations
- * Transportation costs
- * Energy demand and supply conditions

Manufactured Products

Manufactured Products showed relatively stable growth compared to other sectors. The WPI value increased from 105.3 in 2012–13 to 140.2 in 2023–24. The CAGR was 33.1%, which was lower than the other sectors.

The stable growth was due to:

- * Stable production costs
- * Long-term industrial contracts
- * Controlled industrial inflation
- * Government interventions and trade policies

Despite moderate growth, Manufactured Products significantly contributed to the overall WPI because of their high weightage in the index.

4.2 Sector-wise Contribution to Overall WPI

The sector-wise contribution analysis indicates that Primary Articles contributed the largest share to overall WPI, followed by Manufactured Products and Fuel & Power.

Sector	Total WPI Contribution	Percentage Contribution	
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Primary Articles	1686.7	37.88%	
Fuel & Power	1332	29.91%	
Manufactured Products	1434	32.21%	

The findings reveal that Primary Articles had the highest influence on WPI due to rising prices of food grains, vegetables, minerals, and agricultural commodities. Manufactured Products also had a significant impact because of their large representation in industrial production.

Fuel & Power showed relatively lower contribution despite high price volatility because fluctuations in fuel prices were temporary and heavily dependent on global markets.

5. Findings of the Study

The major findings of the study are:

1. Primary Articles recorded the highest cumulative growth rate among all sectors.
2. Fuel & Power experienced the highest volatility due to fluctuations in global oil prices.
3. Manufactured Products showed stable and consistent growth over the study period.
4. Primary Articles contributed the highest share to overall WPI.
5. Inflationary pressures increased significantly after 2020 due to the pandemic and global supply chain disruptions.
6. Global commodity prices, exchange rates, and government policies played a crucial role in influencing WPI trends.
7. WPI remains an important indicator for understanding inflationary patterns in the Indian economy.

6. Conclusion

The Wholesale Price Index is an important indicator for measuring inflation and understanding economic trends in India. The present study analyzed sector-wise contribution to WPI from 2012 to 2024 and identified major inflationary patterns across Primary Articles, Fuel & Power, and Manufactured Products.

The study concluded that Primary Articles experienced the highest inflation and contributed the most to overall WPI. Fuel & Power remained highly volatile because of global energy market fluctuations, while Manufactured Products maintained comparatively stable growth.

The findings highlight the importance of continuous monitoring of sectoral WPI trends for effective policymaking and economic planning. Policymakers should focus on controlling inflation through better supply chain management, energy price regulation, and industrial support measures.

Overall, the study provides valuable insights into inflation dynamics and sectoral performance in India. It also emphasizes the need for balanced economic policies to ensure price stability and sustainable economic growth.

References

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