

SHORT ARTICLE

Consumer Price Index (CPI) – Types & Sources

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ABSTRACT

The consumer price index is an important parameter to measure inflation. It reflects the relative changes in the prices of goods and services and its effect on inflation. These changes affect the real purchasing power of consumers and their welfare. It is used for regulation of wages, calculation of dearness allowance for workers and employees and for policy formations. Consumer price indices are of different types. Each type has its own significance. It is often difficult to identify the sources of consumer price indices and their specific uses.

KEYWORDS

Consumer Price Index (CPI), Costs and Cost Analysis; Inflation, Economic

INTRODUCTION

A Consumer Price Index (CPI) is designed to measure the changes over time in the general level of retail prices of selected goods and services that households purchase for the purpose of consumption. Such changes affect the real purchasing power of consumers' income and their welfare. The CPI measures price changes by comparing, through time, the cost of a fixed basket of commodities.(1)

Given the many uses of CPIs, it is unlikely that one index can perform equally satisfactory in all applications. Therefore, there is a practice of compiling several CPI variants for specific purposes. Each index should be properly defined and named to avoid confusion. The purpose of CPI should influence all aspects of its construction.(1)

The basket is based on the expenditures of a target population in a certain reference period.

Since the basket contains commodities of unchanging or equivalent quantity and quality, the index reflects only pure price. Traditionally, CPI numbers were originally introduced to provide a measure of changes in the living costs of workers, so that their wages could be compensated to the changing level of prices.(1,2,3)

Given the many uses of CPIs, it is unlikely that one index can perform equally satisfactory in all applications. Therefore, there is a practice of compiling several CPI variants for specific purposes. Each index should be properly defined and named to avoid confusion. The purpose of CPI should influence all aspects of its construction.(1,4)

CPIs have widened their scope and now are widely used as a macroeconomic indicator of inflation, as a tool by governments and central banks for monetary policy and for monitoring

price stability, and as deflators in the national accounts. With the globalization of trade and production and the liberalization of the markets, national governments, central banks, and international organizations place great importance on the quality and accuracy of national CPIs, and their international comparability.(5)

Consumer price index (CPI) vs Wholesale Price Index (WPI)(2)

The Wholesale Price Index (WPI) tracks inflation at the producer level and Consumer Price Index (CPI) captures changes in the prices at consumer level. The two indices differ in which weightages are assigned to food, fuel, and manufactured items. WPI does not capture changes in the prices of services which CPI does. WPI is published by the office of Economic Advisor (Ministry of Commerce & Industry) while CPI (rural/urban/combined) is published by NSO, Ministry of Statistics & Programme Implementation.

This article is written keeping in view the difficulties faced by researchers regarding understanding different types of consumer price indexes and accessing their sources.

There are basically four types of consumer price indices.

- CPI (Industrial workers)
- CPI (Agricultural Labourers)
- CPI (Rural Labourers)
- CPI (Urban/Rural/Combined)

CPI(IW), CPI(AL) and CPI (RL) indices depict change in the level of average retail prices of goods and services consumed by specific segment of population, which they refer.(1) Whereas CPI (Urban/Rural/Combined) reflect a true picture of the price behavior and effect of price fluctuations of various goods and services consumed by the general population in the country, over a period.(1)

Following are the details of each CPI.

CPI (Industrial workers)

Base year: The base year for calculating the CPI(IW) is 2016

Source: Office of Labour Bureau, Ministry of Labour and Employment

Site: www.labourbureaunew.gov.in (Press release section)

Frequency of publication: Monthly

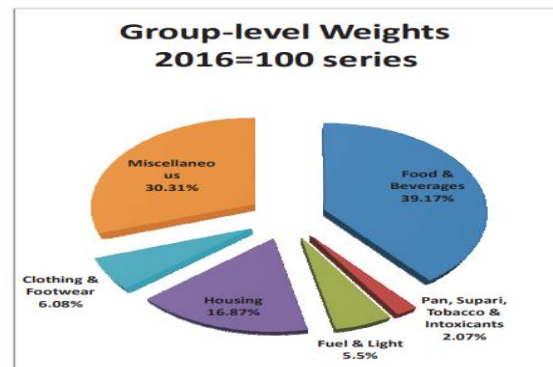
The indices are released monthly, and the Index of the previous month is released on the last working day of the ongoing month. This index measures the relative changes in retail prices of fixed basket of goods and services consumed by industrial workers over a period.

How is CPI-IW calculated?

The data is collected from 88 center’s, from 317 markets and retail consumer prices of 463 items from 48384 working class families in 28 States/UTs make it more representative in character and reflects the latest consumption pattern of the target population, i.e., industrial workers.(3,4)

The new series of CPI-IW (2016=100) covers the industrial workers from the existing seven sectors viz. Factories, Mines, Plantation, Railways, Public Motor Transport Undertakings, Electricity Generating & Distributing Establishments and Ports & Docks.(4)

Figure 1: – Group level weightage of goods and services items(4)



The 463 items are divided into six groups with weightage as depicted in Figure 1. It shows maximum weightage is given to the food and beverages group followed by miscellaneous group. Housing is given about 16.87% of weightage.

Uses of CPI-IW

The CPI (IW) indices are mainly used for regulation of Dearness allowance and Wages of millions of Workers and Employees

belonging to Central Government, State Governments, Public and Private sector Establishments in the country.

CPI-IW serves as an indicator of the retail price situation in the country. The rate of inflation based on retail prices is measured through these indices.

It is used in calculation of socioeconomic status of families in BG Prasad scale, Kuppuswamy scale and Gaur's scale.

CPI (Agricultural Labourers)

Base year: The base year for calculating the CPI(AL) is 2086-87.

Source: Office of Labour Bureau, Ministry of Labour and Employment

Site: www.labourbureaunew.gov.in (Press release section)

Frequency of publication: Monthly (The indices are released on monthly basis and the Index of the previous month is released on the 20th of the ongoing month.)

How is CPI-AL calculated?

The coverage of CPI-AL is confined to households of the agricultural labourers. Indices for CPI-AL are compiled separately for each of the 20 States which were selected based on the proportion of agriculture labour in respective states.(3,6)

The rural labour households, who derive 50 per cent or more of their total income from wage paid manual labour in agricultural activities, are treated as agricultural labour households.(3,6)

The all-India index is worked out as a weighted average of the indices of 20 States, weights being the estimated consumption expenditure of all agricultural labour households in each State as a proportion of corresponding expenditure for all-India.(3,6).

The existing series of CPI Numbers for Agricultural and Rural Labourers (base 1986-87=100) covers data from 600 sample villages selected from 20 States every month. The indices for 20 States and all-India for Agricultural Labourers are compiled on monthly basis as per the methodology suggested by the Technical Advisory Committee on Statistics of Prices of Cost of Living (TAC on SPCL).(3,6)

The Field Operations Division of the National Statistical Office has been entrusted with the responsibility of collection of rural retail prices every month from shops and markets catering to 600 representative sample villages spread over 66 NSS regions in 20 States. Price collection from these sample villages is staggered over the four weeks of a month, with one-fourth of the sample being covered every week.(3,6)

These prices are collected on the fixed price collection day which may be a "Haat" day for non-daily markets and any market day for daily markets. The price returns are scrutinized and processed in the Labour Bureau and the discrepancies, if any, are sorted out through correspondence and field inspections by the staff of the Bureau (3,6)

Table 1 - All India Consumer Price Index Number (General & Group-wise) for Agricultural labourers for the month of April 2023.(3)

Group	Agricultural Labourers	
	March, 2023	April, 2023
General Index	1175	1180
Food	1098	1104
Pan, Supari, etc.	1996	1999
Fuel & Light	1298	1298
Clothing, Bedding & Footwear	1247	1252
Miscellaneous	1251	1256

It is observed from Table 1 that the general index increased from 1175 in March 2023 to 1180 in April 2023 whereas food subgroup has recorded change of 6 points from 1098 in March 2023 to 1104 in April 2023.

CPI (Rural Labourers)

Base year: The base year for calculating the CPI(RL) is 1986-87 .

Source: Office of Labour Bureau, Ministry of Labour and Employment

Site: <http://www.labourbureaunew.gov.in> (Press release section)

Frequency of publication: Monthly

(The indices are released monthly, and the Index of the previous month is released on the 20th of the ongoing month.)

How CPI-Rural Labourers are calculated?

CPI-AL covers the households of rural labourers which includes agricultural laborer's

households also. Indices for CPI-RL are compiled separately for each of the 20 States which are selected based on the proportion of agriculture labour in respective states.(6)

Rural Labour Households are those households whose income, during the last 365 days, was more from wage paid manual labour (agricultural and/or non-agricultural) than either from paid non-manual employment or from self-employment.(6)

Table 2- All India Consumer Price Index Number (General & Group-wise) for Rural labourers for the month of April 2023.(3)

Group	Agricultural Labourers	
	March, 2023	April, 2023
General Index	1186	1192
Food	1105	1111
Pan, Supari, etc.	2005	2008
Fuel & Light	1290	1290
Clothing, Bedding & Footwear	1286	1292
Miscellaneous	1255	1260

It is observed from table number 2 that the general index has increased by 6 points from 1186 in March 2023 to 1192 in April 2023. The maximum change is observed in the food group and clothing, bedding & footwear group from March 2023 to April 2023 period.

Uses of CPI-AL and CPI-RL:

1. Employment and unemployment status of rural labour households
2. Wages and earnings of rural labour households

3. Indebtedness among the rural labour households
4. General characteristics of rural labour households and
5. Consumption expenditure of rural labour households.

CPI (Urban/Rural/Combined)

It is also known as All India Consumer Price Index. It is released along with Consumer Food Price Index (CFPI) for rural(R), urban(U) and combined(C).6

Base year: The base year for calculating the CPI(Urban/Rural/Combined) is 2012.

Source: The National Statistical Office (NSO), Ministry of Statistics & Programme Implementation

Site: www.mospi.gov.in (Press release section)

Frequency of publication: Monthly (The indices are released on monthly basis and the Index of the previous month is released on 12th day of the following month at 5.30 pm. If 12th day is a government holiday, it is released on the next working day)

How is CPI (urban /rural /combined) calculated?

The price data are collected from selected 1114 urban markets and 1181 villages covering all States/UTs through personal visits by field staff of Field Operations Division of NSO, MoS&PI on a weekly roster.(7)

There are six groups. All items are included in one of the groups.(1)

Table 3- All India subgroup / group weights of CPI (rural) , CPI(urban) , and CPI(combined)

Group Code	Sub-group Code	Description	Rural	Urban	Combined
	1.1.01	Cereals and pulses	12.35	6.59	9.67
	1.1.02	Meat and fish	4.38	2.73	3.61
	1.1.03	Eggs	0.49	0.36	0.43
	1.1.04	Milk and products	7.72	5.33	6.61
	1.1.05	Oils and fats	4.21	2.81	3.56
	1.1.06	Fruits	2.88	2.90	2.89
	1.1.07	Vegetables	7.46	4.41	6.04
	1.1.08	Pulses and products	2.95	1.73	2.38
	1.1.09	Sugar and Confectionery	1.70	0.97	1.36
	1.1.10	Spices	3.11	1.79	2.50
	1.1.11	Non-alcoholic beverages	1.37	1.13	1.26
	1.1.12	Prepared meals, snacks, sweets	5.56	5.54	5.55
1		Food and beverages	54.18	36.29	45.86
2		Pan, tobacco, and intoxicants	3.26	1.36	2.38
	3.1.01	Clothing	6.32	4.72	5.58

Group Code	Sub-group Code	Description	Rural	Urban	Combined
3	3.1.02	Footwear	1.04	0.85	0.95
		Clothing and footwear	7.36	5.57	6.53
		Housing	---	21.67	10.07
5		Fuel and light	7.94	5.58	6.84
	6.1.01	Household goods and services	3.75	3.87	3.80
	6.1.02	Health	6.83	4.81	5.89
	6.1.03	Transport and communication	7.60	9.73	8.59
	6.1.04	Recreation and amusement	1.37	2.04	1.68
	6.1.05	Education	3.46	5.62	4.46
	6.1.06	Personal care and effects	4.25	3.47	3.89
6		Miscellaneous	27.26	29.53	28.32
All groups			100.00	100.00	100.00

Table number 3 shows group and subgroup wise weightage of individual items used for calculating rural, urban, and combined

consumer price indices. The food and beverages group are given maximum weightage followed by miscellaneous group.

Table 4 - All India Weights of different Sub-groups within Consumer Food Price Index (CFPI).(1)

Sub-group Code	Subgroup Description	Rural	Urban	Combined
1.1.01	Cereals and products	26.14	22.24	24.77
1.1.02	Meat and Fish	9.26	9.23	9.25
1.1.03	Egg	1.05	1.21	1.10
1.1.04	Milk and product	16.34	17.98	16.92
1.1.05	Oils and fats	8.90	9.49	9.11
1.1.06	Fruits	6.10	9.80	7.40
1.1.07	Vegetables	15.78	14.88	15.46
1.1.08	Pulses and products	6.25	5.84	6.11
1.1.09	Sugar and confectionery	3.61	3.28	3.49
1.1.10	Spices	6.57	6.05	6.39
All Sub-groups of CFPI		100.00	100.00	100.00

The all-India Consumer Food Price Index (CFPI) is calculated separately. Table number 4 shows subgroup wise description of items and their weightage used for calculating rural, urban,

and combined consumer price indices. Maximum weightage is given for cereals & products followed by milk & products. The least weightage is given to egg subgroup.

Table 5 - Monthly changes in the General Indices and CFPIs of March 2023 over Feb 2023.(1)

Indices	Mar 2023 (Prove)			Feb 2023 (Final)			Monthly change (%)		
	Rural	Urban	Combd.	Rural	Urban	Combd.	Rural	Urban	Combd.
CPI (General)	178.0	176.3	177.2	177.9	175.6	176.8	0.06	0.40	0.23
CFPI	172.9	178.4	174.9	172.9	177.4	174.4	0.00	0.56	0.29

Table number 5 shows monthly changes in numbers and percentages in consumer price index general and consumer food price index. There is no change in consumer food price index (rural) from Feb 2023 to March 2023. Maximum change (0.56%) is observed in consumer food price index (urban) from Feb 2023 to March 2023.

All-India CPIs (Rural, Urban, Combined) along with inflation rates for Sub-group, Group, CFPI and General Index (All-Groups) are released

through a Press Note. The Press Note also contains State/UT-wise General Indices for Rural, Urban and Combined. In addition to the Press Release, All India Item CPI (Combined) along with inflation rates are also uploaded on the website of the Ministry of Statistics and Program Implementation.

Uses of CPI (Rural, Urban, Combined):

CPI numbers are widely used as a macroeconomic indicator of inflation, as a tool

by government of India and Reserve Bank of India for inflation targeting and for monitoring price stability, and as deflators in the national accounts.

DISCUSSION

Consumer price indices are useful to track inflation and purchasing power of households. Each type has its own significance and is important for policy decisions by government. It helps the government to monitor changes in the prices of goods and services and take necessary steps to control inflation. CPI-IW is used in calculation of socioeconomic status of families. CPI-IW is released by the Labour Bureau, Ministry of Labour & Employment on monthly basis. The base year used for calculating the CPI-IW is 2016. CPI-IW is of high significance to Government as it is used for regulation and determination of Dearness Allowance (DA) being paid to millions of central and state governments employees. In the industrial sector, it is used for fixation and revision of minimum wages. CPI-AL and CPI-RL indices are used to estimate unemployment status, wages, earnings, indebtedness, general characteristics and consumption and expenditure pattern of rural households. All India CPI (rural/urban/combined) is used by Reserve Bank of India to decide monetary policy. All India CPI is calculated separately for

rural and urban areas. Prices of items are collected from 1181 village markets covering all districts and 1114 urban markets distributed over 310 towns of the country. Therefore CPI (rural/urban/combined) is representative index of entire country.

CONCLUSION

It is important to know the different types of consumer price indices and their sources. It is helpful to utilize each CPI as per requirement. This paper gives concise information about the different types and sources of consumer price indices.

REFERENCES

1. Consumer Price Index Changes in the Revised Series, Ministry of Statistics and Programme Implementation Central Statistics Office National Accounts Division Prices and Cost of Living Unit 2015.
2. Drishti IAS. Mind maps for UPSC-Inflation: Meaning, Type and Impact (Economy) Video.
3. www.labourbureaunew.gov.in (Press release section)
4. Report on New Series of Consumer Price Index for Industrial Workers (CPI-IW) (Base 2016 = 100), Government of India Ministry of Labour & Employment Labour Bureau.
5. Consumer price index manual: concepts and methods, International Monetary Fund, Publication Services. 2020.
6. www.labourbureaunew.gov.in (Schemes section)
7. www.mospi.gov.in [Press release section]