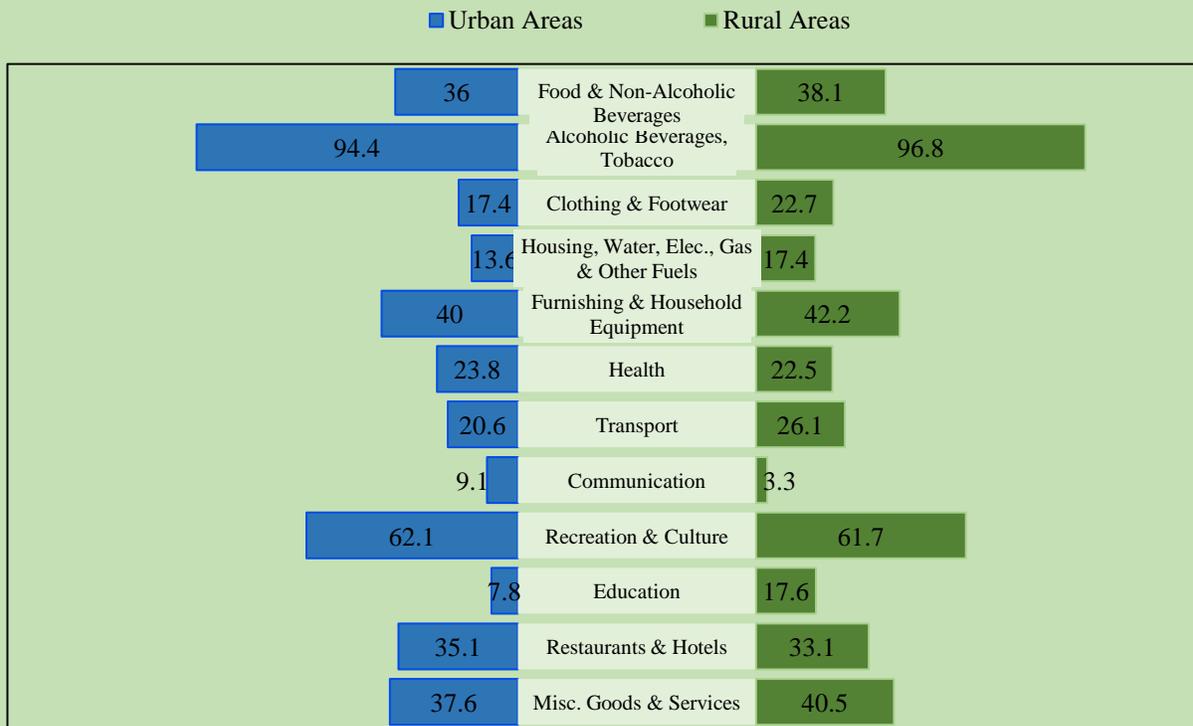




# Inflation Monitor

September 2023

Group-wise Urban and Rural Inflation - Period Average (since July)



Data Services and Innovations Department

State Bank of Pakistan 
 State Bank of Pakistan 
 State Bank of Pakistan

State Bank of Pakistan, I.I. Chundrigar Road, Karachi.

ISSN 1992-8327 (print)

ISSN 1992-8335 (online)

The analysis in this document is based on data:

- provided by Pakistan Bureau of Statistics (PBS) for domestic inflation analysis
- retrieved from Bloomberg, Trading Economics, IMF and World Bank websites for global inflation analysis

For feedback and queries: [feedback.statistics@sbp.org.pk](mailto:feedback.statistics@sbp.org.pk)



## Table of Contents

1.	Inflation in Brief	6
2.	CPI Inflation Heat Maps	8
3.	Inflation Trends	12
4.	Movements in Price Indices (Moving Averages)	13
5.	Movements in Price Indices (MoM)	14
6.	Consumer Price Indices and Inflation	16
7.	Weighted Contribution	19
8.	Inflation Diffusion Index	21
9.	Domestic Food Commodity Prices (Growth)	22
10.	Inflation in Global Context	23
11.	Global Commodity Prices and Indices (Growth)	24
12.	Seasonal Adjustment in CPI	25
	List of Illustrations	29
	Tables	29
	Table A1: Inflation – Summary	29
	Table A2: National CPI Inflation by Groups (YoY and MoM in percent)	30
	Table A3: Urban CPI Inflation by Groups (YoY and MoM in percent)	30
	Table A4: Rural CPI Inflation by Groups (YoY and MoM in percent)	31
	Table A5: National CPI Inflation by Groups	32
	Table A6: Urban CPI Inflation by Groups	33
	Table A7: Rural CPI Inflation by Groups	34
	Table A8: Top Ten Contributors to Urban CPI Inflation (YoY)	35
	Table A9: Top Ten Contributors to Urban CPI Inflation (MoM)	36
	Table A10: Top and Bottom Fifteen Contributors to Urban CPI Inflation (YoY)	37
	Table A12: Top and Bottom Fifteen Contributors to MoM Urban CPI Food Inflation	39
	Table A13: Top and Bottom Fifteen Contributors to MoM Urban CPI Non-Food Inflation	40
	Table A14: Top Ten Contributors to Rural CPI Inflation (YoY)	41
	Table A15: Top Ten Contributors to Rural CPI Inflation (MoM)	42
	Table A16: Top and Bottom Fifteen Contributors to Rural CPI Inflation (YoY)	43
	Table A17: Top and Bottom Fifteen Contributors to Rural CPI Inflation (MoM)	44
	Table A18: Top and Bottom Fifteen Contributors to Rural CPI Food Inflation (MoM)	45
	Table A19: Top and Bottom Fifteen Contributors to MoM Rural CPI Non-Food Inflation	46
	Table A20: Distribution of Price Changes (YoY) - Selected Urban CPI Item	47
	Table A21: Distribution of Price Changes (YoY) - Selected Rural CPI Items	48
	Table A22: Distribution of Price Changes (YoY) - WPI Items	49
	Table A23: International Commodity Prices/Indices	50
	Table A24: National CPI Data Series - Original and Seasonally Adjusted	51
	Table A25: Urban CPI Data Series - Original and Seasonally Adjusted	52
	Table A26: Rural CPI Data Series - Original and Seasonally Adjusted	53
	Table A27: National CPI Monthly & Average Seasonal Factors	54
	Table A28: Urban CPI Monthly & Average Seasonal Factors	54
	Table A29: Rural CPI Monthly & Average Seasonal Factors	55

<b>Table A30: National CPI MoM - Original and Seasonally Adjusted</b> .....	56
<b>Table A31: Urban CPI MoM - Original and Seasonally Adjusted</b> .....	57
<b>Table A32: Rural CPI MoM - Original and Seasonally Adjusted</b> .....	58
<b>Figures</b> .....	59
<b>Figure A1: National CPI Inflation – Non Food Groups (YoY, 12MMA, MoM in percent)</b> .....	59
<b>Figure A2: Urban CPI Inflation – Non Food Groups (YoY, 12MMA, MoM in percent)</b> .....	60
<b>Figure A3: Rural CPI Inflation – Non Food Groups (YoY, 12MMA, MoM in percent)</b> .....	61
<b>Figure A4: Frequency Distribution of Price Changes of Urban CPI Items (YoY)</b> .....	62
<b>Figure A5: Frequency Distribution of Price Changes of Rural CPI Items (YoY)</b> .....	63
<b>Figure A6: Frequency Distribution of Price Changes of Urban CPI Items (MoM)</b> .....	64
<b>Figure A7: Frequency Distribution of Price Changes of Rural CPI Items (MoM)</b> .....	65
<b>Figure A8: Frequency Distribution of Price Changes of WPI Commodities (YoY)</b> .....	66
<b>Technical Notes</b> .....	67
<b>Methodology for Estimating Inflation Diffusion Index for Pakistan</b> .....	69

**Team**

**Publication Author**

Sohail Haider

Deputy Director

**Publication Reviewer**

Syed Aamir Ali Bokhari

Joint Director

**Publication Manager**

Salman Ahmed

Senior Joint Director

**Data Support**

Pakistan Bureau of Statistics (PBS)

## 1. Inflation in Brief

Key developments are presented in the table below:

Inflation	YoY			MoM		
	Sep-23	Aug-23	Sep-22	Sep-23	Aug-23	Sep-22
CPI Inflation						
National	31.4	27.4	23.2	2.0	1.7	-1.2
Urban	29.7	25.0	21.2	1.7	1.6	-2.1
Rural	33.9	30.9	26.1	2.5	1.9	0.2
Core Inflation						
Urban Core (NFNE)	18.6	18.4	14.4	1.0	1.8	0.9
Rural Core (NFNE)	27.3	25.9	17.6	2.6	2.8	1.4
Urban Core Trimmed	25.0	23.0	19.5	1.1	1.5	1.6
Rural Core Trimmed	33.3	30.5	24.4	1.7	1.4	2.5
WPI Inflation	26.4	24.3	38.9	3.1	4.2	1.4
SPI Inflation	32.4	28.7	35.9	2.2	5.5	-0.6

- I. National CPI Inflation (YoY) increased to 31.4 percent in September 2023 from 27.4 percent in previous month. It was recorded at 23.2 percent in the corresponding month of last year. On MoM basis, it increased to 2.0 percent in September 2023 from 1.7 percent in previous month. A deflation of 1.2 percent was recorded during the corresponding month of last year.
- II. Urban CPI Inflation (YoY) increased to 29.7 percent in September 2023 from 25.0 percent in previous month. It stood at 21.2 percent during the corresponding month of last year. On MoM basis, it increased to 1.7 percent in September 2023 from 1.6 percent in previous month. A deflation of 2.1 percent was recorded during the corresponding month of last year. Seasonally adjusted Urban CPI (MoM) showed an inflation of 1.6 percent in September 2023 compared to 1.6 percent in previous month.
- III. Rural CPI Inflation (YoY) increased to 33.9 percent in September 2023 from 30.9 percent in previous month. It was recorded at 26.1 percent during the corresponding month of last year. On MoM basis, it increased to 2.5 percent in September 2023 from 1.9 percent in previous month. It stood at 0.2 percent during the corresponding month of last year. Seasonally adjusted Rural CPI (MoM) showed an inflation of 1.7 percent in September 2023 as compared to 1.8 percent in previous month.
- IV. Urban Core (NFNE) Inflation (YoY) increased to 18.6 percent in September 2023 from 18.4 percent in previous month. It stood at 14.4 percent during the corresponding month of last year. On MoM basis, it decreased to 1.0 percent in September 2023 from 1.8 percent in previous month. It stood at 0.9 percent during the corresponding month of last year.
- V. Rural Core (NFNE) Inflation (YoY) increased to 27.3 percent in September 2023 from 25.9 percent in previous month. It stood at 17.6 percent during the corresponding month of last year. On MoM basis, it decreased to 2.6 percent in September 2023 from 2.8 percent in previous month. It was recorded at 1.4 percent during the corresponding month of last year.
- VI. Urban Core (trimmed) Inflation (YoY) increased to 25.0 percent in September 2023 from 23.0 percent in previous month. It stood at 19.5 percent during the corresponding month of last year. On

MoM basis, it decreased to 1.1 percent in September 2023 from 1.5 percent in previous month. It stood at 1.6 percent during the corresponding month of last year.

- VII. Rural Core (trimmed) Inflation (YoY) increased to 33.3 percent in September 2023 from 30.5 percent in previous month. It was recorded at 24.4 percent during the corresponding month of last year. On MoM basis, it increased to 1.7 percent in September 2023 from 1.4 percent in previous month. It stood at 2.5 percent during the corresponding month of last year.
- VIII. WPI Inflation (YoY) increased to 26.4 percent in September 2023 from 24.3 percent in previous month. It stood at 38.9 percent during the corresponding month of last year. On MoM basis, it decreased to 3.1 percent in September 2023 from 4.2 percent in previous month. It stood at 1.4 percent during the corresponding month of last year.
- IX. SPI (combined) Inflation (YoY) increased to 32.4 percent in September 2023 from 28.7 percent in previous month. It stood at 35.9 percent during the corresponding month of last year. On MoM basis, it decreased to 2.2 percent in September 2023 from 5.5 percent in previous month. A deflation of 0.6 percent was recorded during the corresponding month of last year.

## 2. CPI Inflation Heat Maps

Heat map is a data visualization technique that represents the magnitude of individual values against benchmark values. A heat map for National, Urban and Rural CPI inflation (YoY and MoM) and their important sub-indices for the last thirteen months is presented here. The observed inflation is compared with inflation target of 21.0 percent for FY24<sup>1</sup>.

National, Urban and Rural CPI Inflation (YoY)														
		Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23
Headline	National	23.2	26.6	23.8	24.5	27.6	31.5	35.4	36.4	38.0	29.4	28.3	27.4	31.4
	Urban	21.2	24.6	21.6	21.6	24.4	28.8	33.0	33.5	35.1	27.3	26.3	25.0	29.7
	Rural	26.1	29.5	27.2	28.8	32.3	35.6	38.9	40.7	42.2	32.4	31.3	30.9	33.9
Food	Urban	30.8	34.7	29.7	32.7	39.0	41.9	47.1	46.8	48.1	40.8	40.2	38.8	33.9
	Rural	32.7	37.2	33.5	37.9	45.2	47.0	50.2	52.2	52.4	41.5	41.3	40.6	35.4
Core	Urban	14.4	14.9	14.6	14.7	15.4	17.1	18.6	19.5	20.0	18.5	18.4	18.4	18.6
	Rural	17.6	18.2	18.5	19.0	19.4	21.5	23.1	24.9	26.9	25.2	24.6	25.9	27.3

**Key**



<15.0                      21.0                      >27.0

National, Urban and Rural CPI Inflation (MoM)														
		Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23
Headline	National	-1.2	4.7	0.8	0.5	2.9	4.3	3.7	2.4	1.6	-0.3	3.5	1.7	2.0
	Urban	-2.1	4.5	0.4	0.3	2.4	4.5	3.9	2.0	1.5	0.1	3.6	1.6	1.7
	Rural	0.2	5.0	1.3	0.7	3.6	4.0	3.5	3.0	1.7	-0.8	3.3	1.9	2.5
Food	Urban	5.2	4.5	0.0	0.0	3.9	4.3	5.6	3.4	1.9	0.1	3.7	0.6	1.5
	Rural	5.7	6.1	0.5	0.1	5.7	3.9	4.5	4.2	1.4	-1.6	3.5	0.8	1.8
Core	Urban	0.9	1.3	0.8	1.2	1.4	2.2	2.5	1.8	1.2	0.7	1.2	1.8	1.0
	Rural	1.4	1.5	2.1	1.5	1.5	2.6	2.4	2.7	2.5	0.9	1.2	2.8	2.6

**Key**



<0.0                      0.8                      >1.5

National CPI Inflation (YoY)														
	Weights	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23
General	100.00	23.2	26.6	23.8	24.5	27.6	31.5	35.4	36.4	38.0	29.4	28.3	27.4	31.4
Food and Non-Alcoholic Beverages	34.58	31.7	36.2	31.2	35.5	42.9	45.1	47.2	48.1	48.7	39.5	39.5	38.5	33.1
Alcoholic Beverages, Tobacco	1.02	32.7	34.6	35.9	36.2	36.3	49.2	140.0	133.5	124.0	109.5	102.1	97.5	87.5
Clothing and Footwear	8.60	17.7	18.3	18.6	17.1	16.8	17.0	21.9	21.6	22.5	21.0	20.4	18.5	20.6
Housing, Water, Elec., Gas and Other Fuels	23.63	3.4	11.9	9.9	7.0	7.8	13.6	17.5	16.9	20.5	11.6	10.8	6.3	29.7
Furnishing and Household Equipment Maintenance	4.10	25.1	27.6	29.1	29.2	29.9	34.0	39.0	40.5	43.5	41.6	41.7	41.7	39.3
Health	2.79	13.8	16.2	17.1	17.5	18.7	18.8	18.5	18.8	19.3	19.1	21.5	22.6	25.3
Transport	5.91	64.5	53.4	44.2	41.2	39.1	50.5	54.9	56.8	52.9	20.3	13.6	23.0	31.3
Communication	2.21	1.3	1.6	1.6	1.7	1.6	3.7	6.6	6.7	7.0	6.8	6.8	7.0	7.4
Recreation and Culture	1.59	22.8	23.7	25.6	38.5	44.2	48.1	50.6	68.6	72.2	68.0	65.9	61.4	58.8
Education	3.79	10.0	10.9	11.1	10.9	10.6	10.8	7.2	8.5	8.4	8.6	8.0	10.5	11.1
Restaurants and Hotels	6.92	28.8	30.4	28.4	27.4	30.1	34.5	38.5	39.0	42.3	36.4	34.7	34.1	34.3
Misc. Goods and Services	4.87	22.9	22.4	23.0	25.8	28.7	33.3	34.4	38.8	43.3	40.1	39.3	40.8	36.4

**Key**



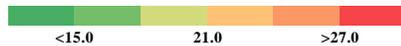
<15.0                      21.0                      >27.0

<sup>1</sup> As per Annual Plan 2023-24 published by Planning Commission of Pakistan

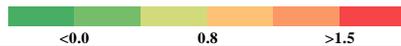
Urban CPI Inflation (YoY)														
Weights	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	
General	100.00	21.2	24.6	21.6	21.6	24.4	28.8	33.0	33.5	35.1	27.3	26.3	25.0	29.7
Food and Non-Alcoholic Beverages	30.42	30.7	34.8	28.9	32.6	39.5	42.1	45.5	45.1	45.8	38.6	38.7	37.2	32.2
Alcoholic Beverages, Tobacco	0.85	34.1	35.4	37.2	37.3	37.3	54.9	140.8	133.7	124.5	107.6	102.6	96.5	84.8
Clothing and Footwear	8.01	18.9	19.5	19.6	17.0	16.8	16.8	22.4	21.5	21.3	19.1	18.6	16.0	17.6
Housing, Water, Elec., Gas and Other Fuels	27.03	1.0	9.5	7.3	4.1	5.0	11.2	15.0	14.5	18.0	10.2	9.6	5.3	28.3
Furnishing and Household Equipment Maintenance	4.09	24.3	27.6	29.0	29.7	30.0	34.1	39.6	40.8	42.1	40.6	41.1	41.4	37.7
Health	2.31	12.3	13.6	14.1	13.5	16.7	18.5	17.9	19.1	19.4	18.5	21.9	22.5	26.9
Transport	6.14	63.3	51.7	42.1	39.2	38.0	49.9	54.6	55.9	51.4	20.0	13.6	20.7	27.4
Communication	2.35	1.2	1.7	1.8	1.8	1.8	4.6	8.5	8.6	9.0	8.8	9.0	8.9	9.4
Recreation and Culture	1.73	21.1	21.4	22.3	38.0	43.6	48.4	51.4	68.5	71.6	67.3	65.8	61.7	58.9
Education	4.88	10.0	11.1	11.1	10.8	10.4	10.4	5.8	6.0	5.7	5.9	5.6	8.7	9.1
Restaurants and Hotels	7.41	29.1	31.8	29.5	28.6	32.4	35.2	39.8	40.4	46.1	38.8	35.8	35.4	34.2
Misc. Goods and Services	4.77	23.1	23.7	23.8	25.9	28.8	33.3	34.3	39.1	43.0	39.5	39.1	39.3	34.7



Rural CPI Inflation (YoY)														
Weights	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	
General	100.00	26.1	29.5	27.2	28.8	32.3	35.6	38.9	40.7	42.2	32.4	31.3	30.9	33.9
Food and Non-Alcoholic Beverages	40.87	32.8	37.9	33.7	38.7	46.8	48.3	49.0	51.4	51.9	40.4	40.5	39.9	34.1
Alcoholic Beverages, Tobacco	1.28	31.1	33.7	34.4	35.0	35.2	42.7	139.1	133.3	123.3	111.8	101.5	98.6	90.5
Clothing and Footwear	9.48	16.3	16.8	17.4	17.2	16.7	17.2	21.3	21.8	23.9	23.3	22.5	21.5	24.2
Housing, Water, Elec., Gas and Other Fuels	18.49	8.6	17.3	15.6	13.2	14.0	18.6	22.9	22.2	26.0	14.8	13.5	8.3	32.7
Furnishing and Household Equipment Maintenance	4.10	26.2	27.7	29.2	28.6	29.8	33.9	38.1	40.2	45.5	43.1	42.6	42.2	41.7
Health	3.51	15.2	18.9	20.2	21.4	20.7	19.1	19.0	18.4	19.3	19.7	21.2	22.6	23.7
Transport	5.56	66.6	56.4	47.9	44.6	41.0	51.4	55.5	58.4	55.5	20.9	13.6	26.8	37.7
Communication	1.99	1.4	1.3	1.4	1.4	1.2	1.9	3.2	3.2	3.2	3.0	2.8	3.4	3.6
Recreation and Culture	1.38	25.7	27.7	31.3	39.4	45.1	47.4	49.2	68.9	73.2	69.2	65.9	60.9	58.5
Education	2.13	9.8	10.2	11.1	11.3	11.2	12.2	12.5	18.0	18.8	18.8	17.1	17.1	18.7
Restaurants and Hotels	6.19	28.2	27.9	26.4	25.2	26.0	33.4	36.1	36.6	35.9	32.1	33.0	31.6	34.6
Misc. Goods and Services	5.02	22.6	20.5	21.9	25.6	28.5	33.3	34.6	38.5	43.8	40.9	39.5	43.0	38.9



National CPI Inflation (MoM)														
Weights	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	
General	100.00	-1.2	4.7	0.8	0.5	2.9	4.3	3.7	2.4	1.6	-0.3	3.5	1.7	2.0
Food and Non-Alcoholic Beverages	34.58	5.8	5.6	0.1	-0.1	5.0	4.1	3.7	4.4	1.3	-1.0	4.1	0.6	1.6
Alcoholic Beverages, Tobacco	1.02	5.9	1.8	1.1	0.5	0.2	9.7	60.9	0.3	0.6	0.1	0.4	0.4	0.5
Clothing and Footwear	8.60	0.3	1.0	2.2	0.7	0.5	1.2	5.3	1.9	1.4	1.1	0.6	1.2	2.1
Housing, Water, Elec., Gas and Other Fuels	23.63	-17.7	10.9	0.6	0.0	1.8	3.7	1.1	-1.1	0.7	-0.2	8.0	1.1	0.5
Furnishing and Household Equipment Maintenance	4.10	3.4	2.9	2.8	2.4	1.6	5.0	5.1	2.7	3.9	1.6	1.7	2.3	1.7
Health	2.79	2.2	2.8	1.9	1.9	1.8	2.1	0.3	1.1	0.9	1.1	2.2	2.0	4.5
Transport	5.91	2.2	-1.8	-0.1	-0.8	-0.5	12.0	3.3	1.6	0.2	-2.1	-0.2	7.9	9.1
Communication	2.21	0.1	0.4	0.0	0.1	0.0	2.1	2.9	0.1	0.4	0.1	0.4	0.3	0.4
Recreation and Culture	1.59	2.0	1.9	2.0	10.9	4.5	3.3	3.1	12.4	5.0	0.7	0.3	3.5	0.4
Education	3.79	0.0	1.0	0.4	0.3	0.1	0.5	1.3	1.9	1.0	0.4	0.0	3.4	0.6
Restaurants and Hotels	6.92	2.2	2.5	1.9	1.3	3.1	5.1	3.8	0.6	4.2	1.4	1.7	1.8	2.4
Misc. Goods and Services	4.87	3.8	0.9	2.3	3.0	3.2	4.7	2.5	4.1	4.5	1.0	1.0	3.9	0.6



Urban CPI Inflation (MoM)														
Weights	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	
General	100.00	-2.1	4.5	0.4	0.3	2.4	4.5	3.9	2.0	1.5	0.1	3.6	1.6	1.7
Food and Non-Alcoholic Beverages	30.42	5.4	4.8	-0.3	-0.3	4.1	4.2	4.5	4.0	1.4	-0.2	4.3	0.4	1.6
Alcoholic Beverages, Tobacco	0.85	6.8	1.3	1.6	0.2	0.1	13.0	55.6	0.3	0.5	0.0	0.4	0.3	0.4
Clothing and Footwear	8.01	0.1	1.0	1.3	0.7	0.6	1.3	5.8	1.1	0.4	1.1	0.6	1.2	1.5
Housing, Water, Elec., Gas and Other Fuels	27.03	-17.8	10.9	-0.1	-0.5	1.4	4.3	1.1	-1.1	0.7	-0.1	8.0	1.1	0.2
Furnishing and Household Equipment Maintenance	4.09	4.1	3.3	2.6	2.3	1.1	5.3	5.2	2.5	2.9	1.6	1.8	2.4	1.4
Health	2.31	1.0	1.7	1.6	1.1	3.4	3.2	0.4	1.9	0.6	0.7	2.9	2.1	4.7
Transport	6.14	2.0	-2.2	-0.1	-0.7	-0.4	12.3	3.6	1.4	0.0	-2.2	0.0	6.1	7.8
Communication	2.35	0.1	0.6	0.0	0.1	0.0	2.8	3.7	0.2	0.6	0.1	0.6	0.0	0.5
Recreation and Culture	1.73	2.0	1.7	1.1	13.4	4.3	3.6	3.0	11.5	4.9	0.5	0.4	3.6	0.2
Education	4.88	0.0	1.1	0.2	0.2	0.1	0.1	1.3	0.8	0.8	0.2	0.0	3.6	0.4
Restaurants and Hotels	7.41	2.8	3.0	1.8	1.6	3.6	4.2	4.2	0.6	4.7	1.3	1.1	2.0	1.8
Misc. Goods and Services	4.77	3.9	1.4	1.7	2.4	3.1	4.7	2.6	4.2	3.9	1.2	1.1	3.5	0.4



Rural CPI Inflation (MoM)														
	Weights	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23
General	100.00	0.2	5.0	1.3	0.7	3.6	4.0	3.5	3.0	1.7	-0.8	3.3	1.9	2.5
Food and Non-Alcoholic Beverages	40.87	6.2	6.6	0.4	0.0	6.0	3.9	2.9	4.7	1.1	-1.9	3.8	0.8	1.7
Alcoholic Beverages, Tobacco	1.28	4.8	2.5	0.6	0.9	0.4	5.9	67.5	0.3	0.8	0.2	0.4	0.5	0.5
Clothing and Footwear	9.48	0.5	1.0	3.2	0.8	0.4	1.0	4.7	2.8	2.6	1.1	0.6	1.2	2.7
Housing, Water, Elec., Gas and Other Fuels	18.49	-17.5	10.9	1.8	1.1	2.6	2.6	1.2	-1.3	0.6	-0.6	8.1	1.1	1.1
Furnishing and Household Equipment Maintenance	4.10	2.4	2.2	3.2	2.6	2.3	4.5	4.9	3.1	5.4	1.6	1.6	2.2	2.0
Health	3.51	3.4	3.9	2.3	2.8	0.4	1.1	0.2	0.4	1.3	1.5	1.5	2.0	4.3
Transport	5.56	2.5	-1.3	0.0	-0.9	-0.5	11.6	2.7	2.0	0.6	-2.1	-0.6	11.0	11.3
Communication	1.99	0.1	0.0	0.1	0.0	0.1	0.7	1.3	0.1	0.0	0.0	0.1	0.8	0.3
Recreation and Culture	1.38	2.2	2.4	3.4	6.8	4.9	2.7	3.3	14.1	5.2	1.0	0.2	3.2	0.7
Education	2.13	0.0	0.5	0.8	0.4	0.2	1.7	1.4	5.9	1.5	0.8	0.0	2.8	1.4
Restaurants and Hotels	6.19	1.2	1.7	2.3	0.7	2.3	6.9	3.3	0.7	3.4	1.5	2.8	1.3	3.5
Misc. Goods and Services	5.02	3.7	0.2	3.2	3.9	3.3	4.6	2.4	3.9	5.2	0.8	0.9	4.4	0.7

<0.0                      0.8                      >1.5

Rural CPI Inflation (YoY)														
	Weights	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23
<b>Rural</b>	100.00	26.1	29.5	27.2	28.8	32.3	35.6	38.9	40.7	42.2	32.4	31.3	30.9	33.9
<b>Food</b>	45.95	32.7	37.2	33.5	37.9	45.2	47.0	50.2	52.2	52.4	41.5	41.3	40.6	35.4
Non-perishable	40.16	29.7	31.9	31.8	35.7	44.4	47.6	48.2	54.8	54.4	43.0	43.3	43.9	39.7
Perishable	5.79	52.6	74.2	43.8	59.5	64.3	53.1	54.5	31.9	35.3	24.0	22.2	15.2	3.8
<b>Non Food</b>	54.05	20.1	22.4	21.4	20.7	20.9	25.3	28.5	29.9	32.5	23.8	22.0	22.0	32.3
Energy	11.41	28.8	36.9	30.7	26.2	25.7	37.5	46.6	47.3	52.6	19.8	14.9	12.0	48.6
NFNE (Core)	42.64	17.6	18.2	18.5	19.0	19.4	21.5	23.1	24.9	26.9	25.2	24.6	25.9	27.3
HRI	8.61	5.9	5.9	5.9	5.9	6.9	6.9	6.9	7.1	7.1	7.1	7.5	7.5	7.5
Core Excl HRI	34.03	20.4	21.2	21.5	22.1	22.4	24.9	26.9	29.0	31.4	29.2	28.5	29.9	31.6

<15.0                      21.0                      >27.0

Urban CPI Inflation (YoY)														
	Weights	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23
<b>Urban</b>	100.00	21.2	24.6	21.6	21.6	24.4	28.8	33.0	33.5	35.1	27.3	26.3	25.0	29.7
<b>Food</b>	36.80	30.8	34.7	29.7	32.7	39.0	41.9	47.1	46.8	48.1	40.8	40.2	38.8	33.9
Non-perishable	32.34	27.9	29.4	27.1	29.6	36.7	42.0	44.9	48.5	47.9	40.7	41.1	41.8	37.3
Perishable	4.46	48.3	67.0	38.6	52.9	59.3	42.9	49.4	26.9	32.3	25.6	24.7	10.6	4.9
<b>Non Food</b>	63.20	15.2	18.2	16.4	14.8	15.6	20.8	24.1	24.9	26.6	18.7	17.3	16.3	26.8
Energy	9.47	18.9	34.1	24.5	15.4	16.3	37.1	50.3	52.1	61.2	19.4	13.7	9.4	66.1
NFNE (Core)	53.73	14.4	14.9	14.6	14.7	15.4	17.1	18.6	19.5	20.0	18.5	18.4	18.4	18.6
HRI	19.26	5.6	5.3	5.3	5.3	5.4	5.4	5.4	5.3	5.3	5.3	5.3	5.3	5.3
Core Excl HRI	34.47	19.2	20.1	19.6	19.7	20.8	23.3	25.4	26.8	27.5	25.0	25.0	24.8	24.9

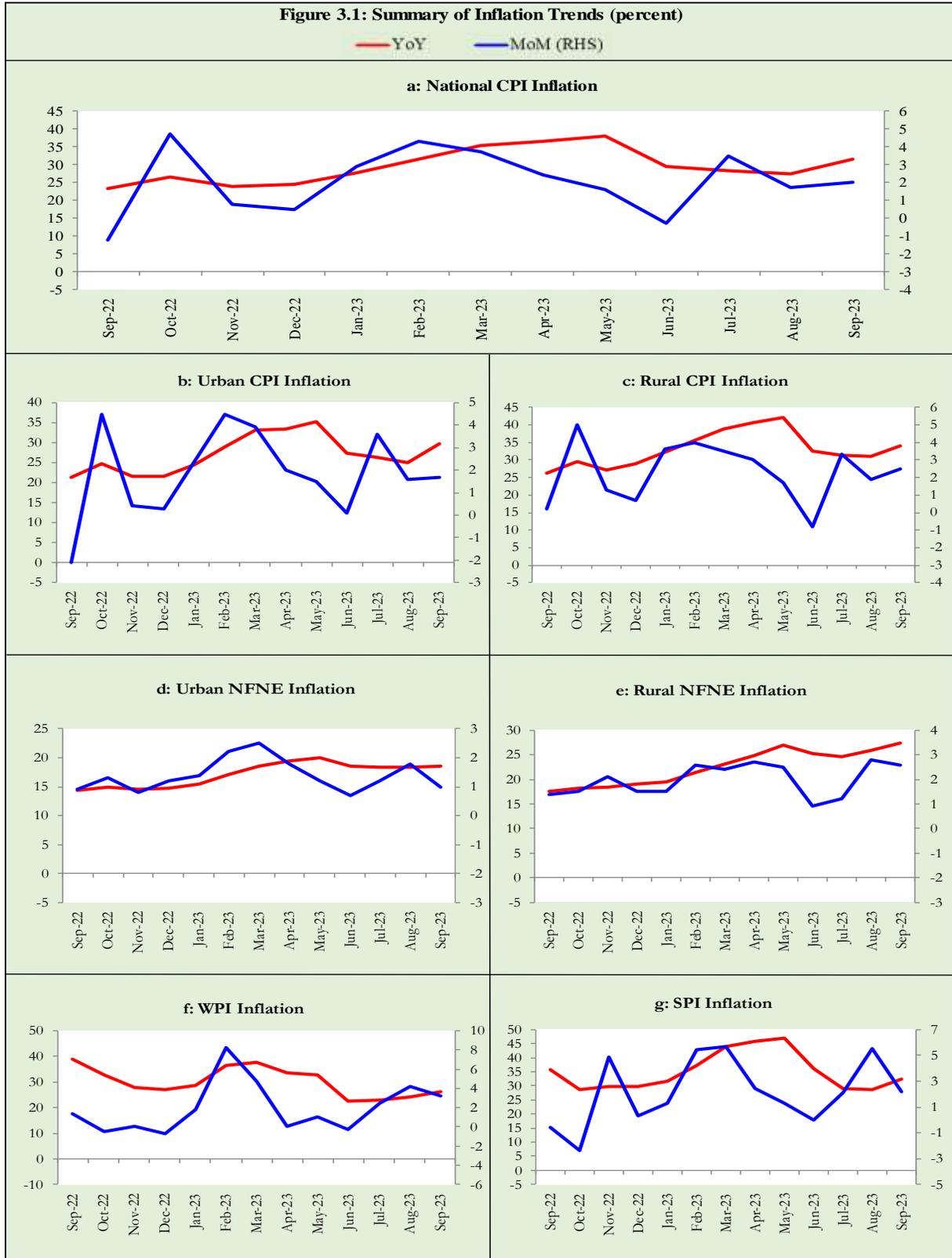
<15.0                      21.0                      >27.0

Rural CPI Inflation (MoM)														
	Weights	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23
<b>Rural</b>	100.00	0.2	5.0	1.3	0.7	3.6	4.0	3.5	3.0	1.7	-0.8	3.3	1.9	2.5
<b>Food</b>	45.95	5.7	6.1	0.5	0.1	5.7	3.9	4.5	4.2	1.4	-1.6	3.5	0.8	1.8
Non-perishable	40.16	4.2	3.7	1.7	2.6	7.4	3.6	3.2	5.1	2.6	-1.7	3.7	1.1	1.1
Perishable	5.79	18.4	22.2	-5.5	-13.2	-2.2	5.5	1.5	2.5	-8.4	-3.6	4.5	-2.0	6.8
<b>Non Food</b>	54.05	-4.9	3.9	2.1	1.4	1.5	4.1	2.4	1.6	2.0	0.1	3.0	3.1	3.2
Energy	11.41	-21.0	11.8	2.2	0.8	1.5	8.4	2.4	-1.4	0.7	-2.4	8.8	3.7	4.8
NFNE (Core)	42.64	1.4	1.5	2.1	1.5	1.5	2.6	2.4	2.7	2.5	0.9	1.2	2.8	2.6
HRI	8.61	0.0	1.3	0.0	0.0	3.1	0.0	0.0	1.2	0.0	0.0	1.7	0.0	0.0
Core Excl HRI	34.03	1.7	1.6	2.5	1.8	1.2	3.2	2.9	3.0	3.0	1.1	1.1	3.4	3.1

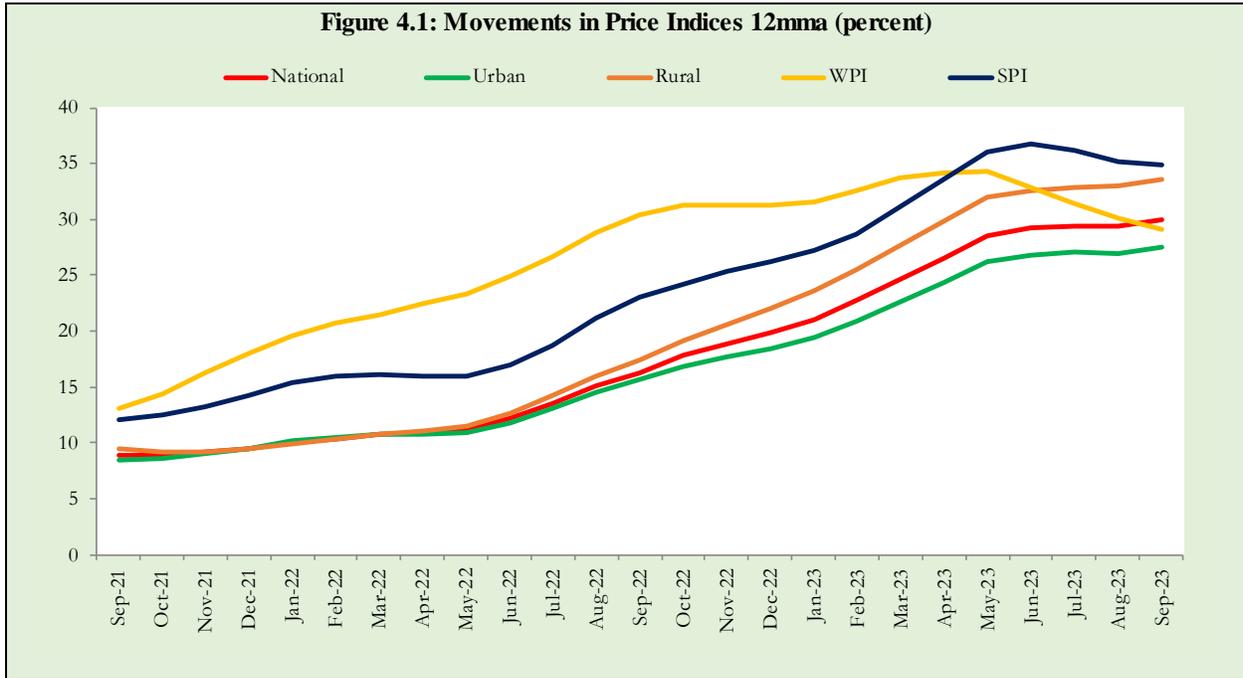
<0.0                      0.8                      >1.5



### 3. Inflation Trends



#### 4. Movements in Price Indices (Moving Averages)



### 5. Movements in Price Indices (MoM)

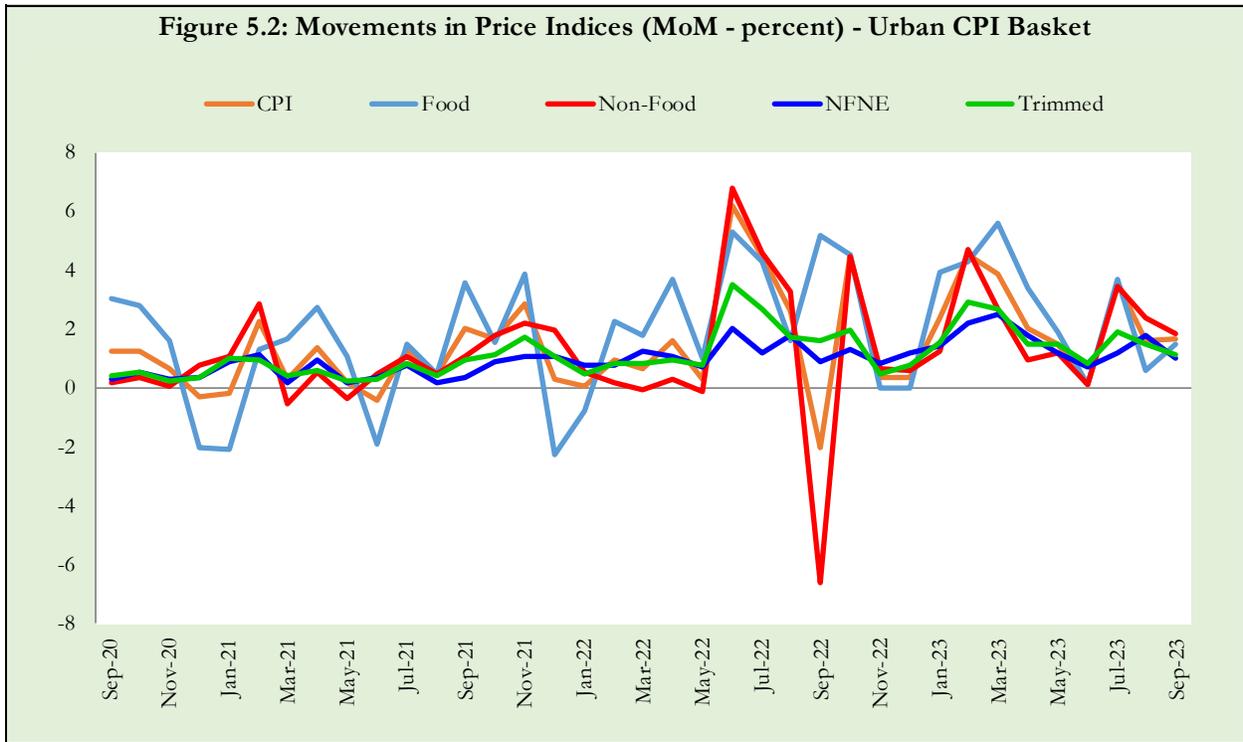
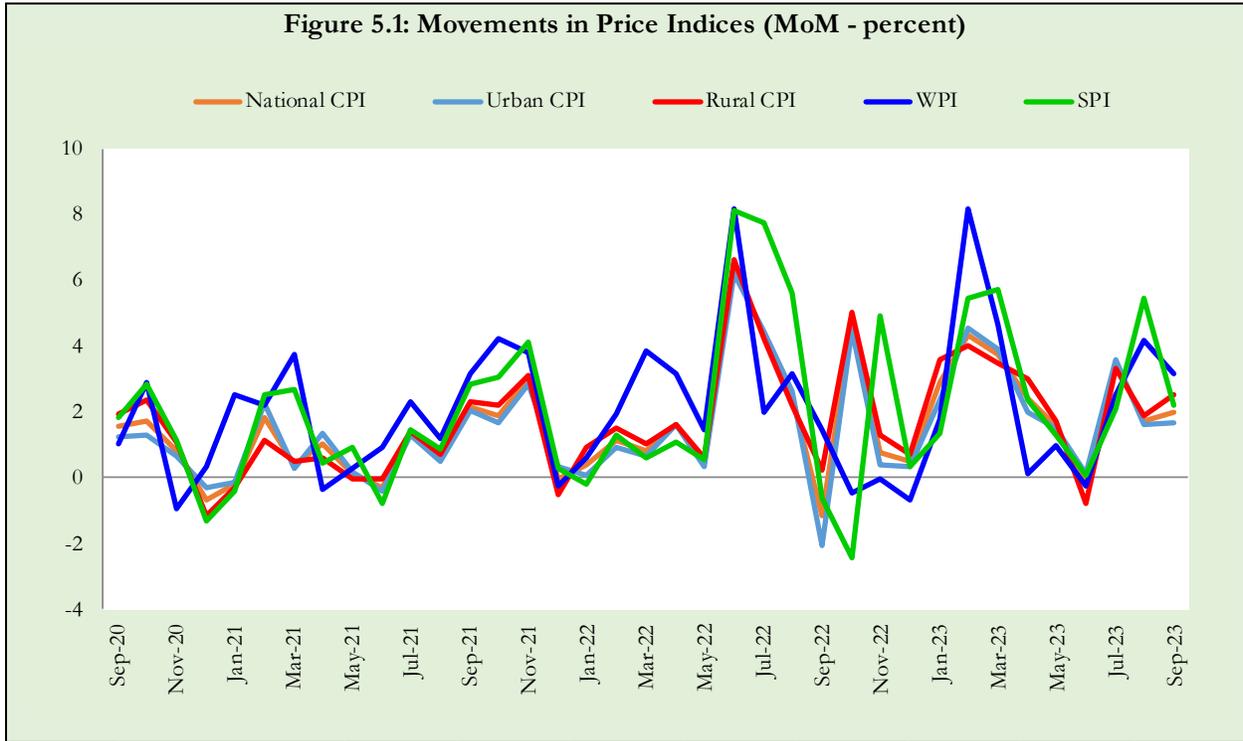
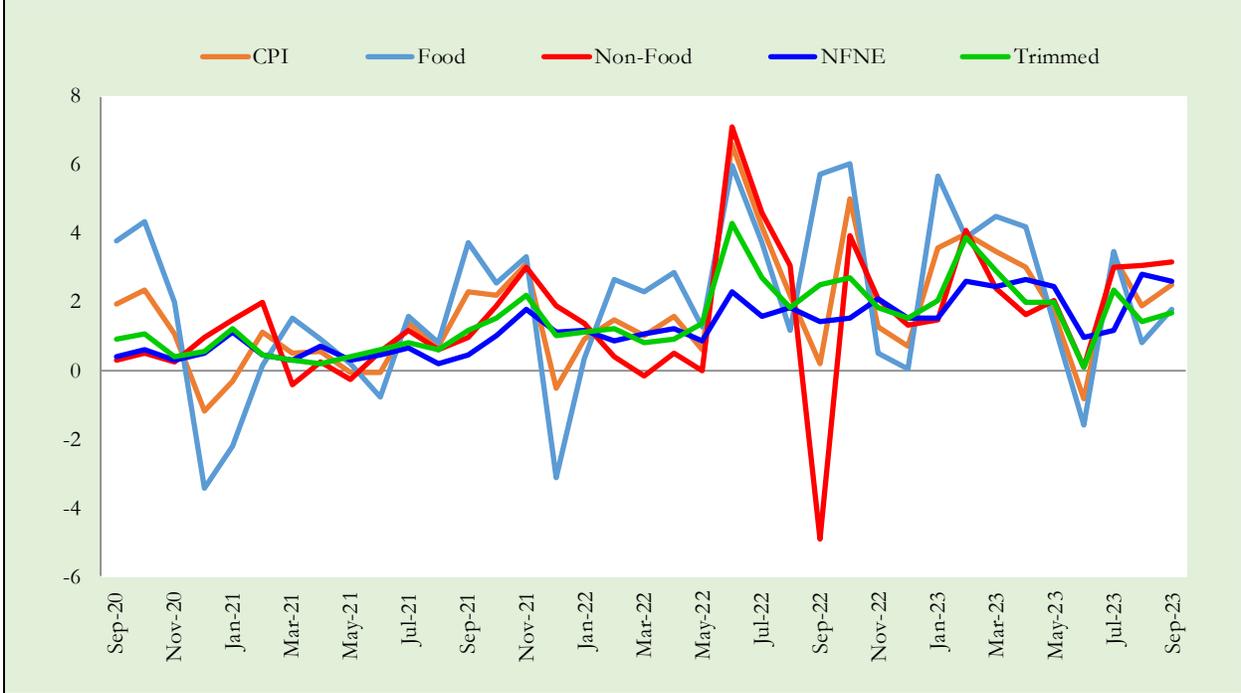


Figure 5.3: Movements in Price Indices (MoM - percent) - Rural CPI Basket



## 6. Consumer Price Indices and Inflation

Monthly CPI, Inflation (YoY) and seasonally adjusted CPI (MoM) are summarized in the following graphs (Figure 6.1 to 6.3).

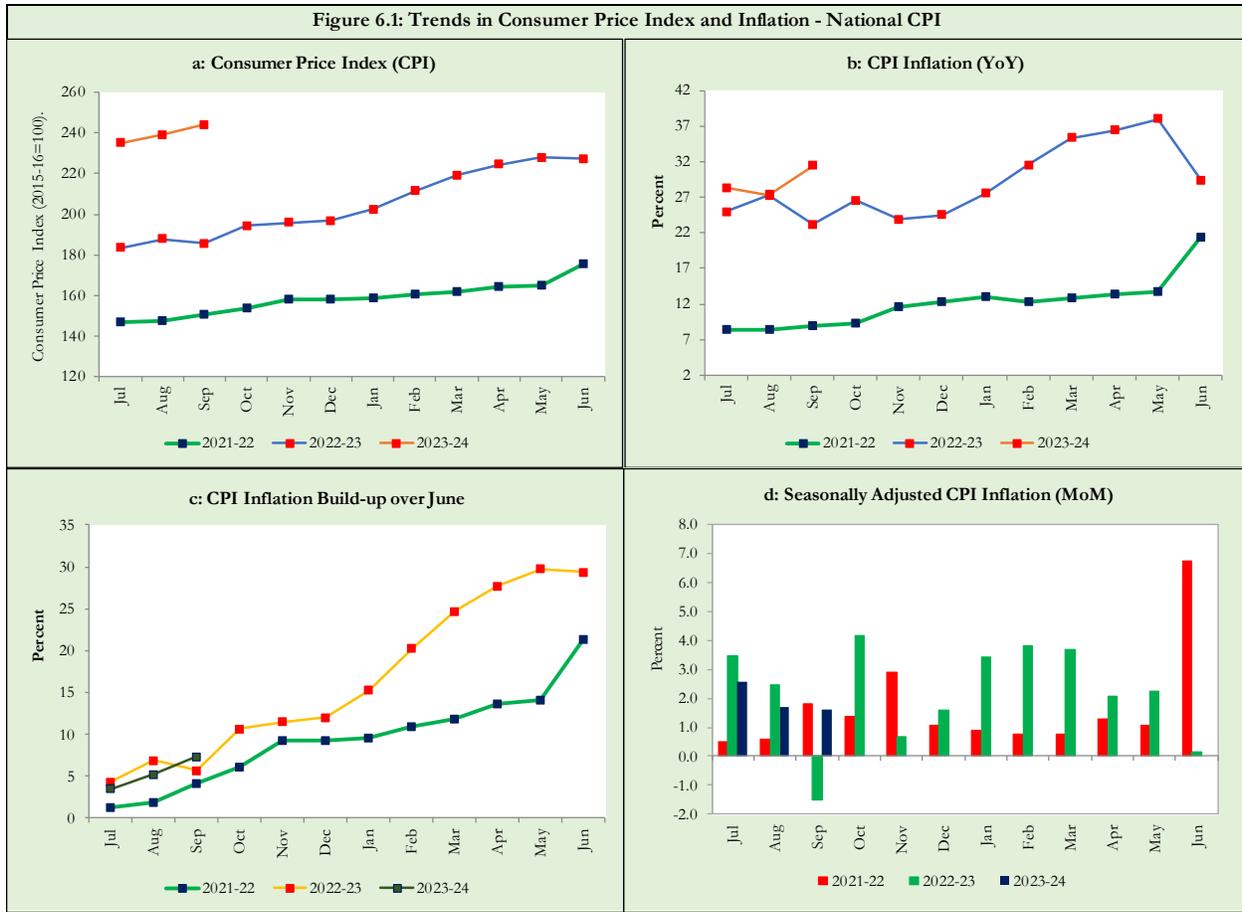
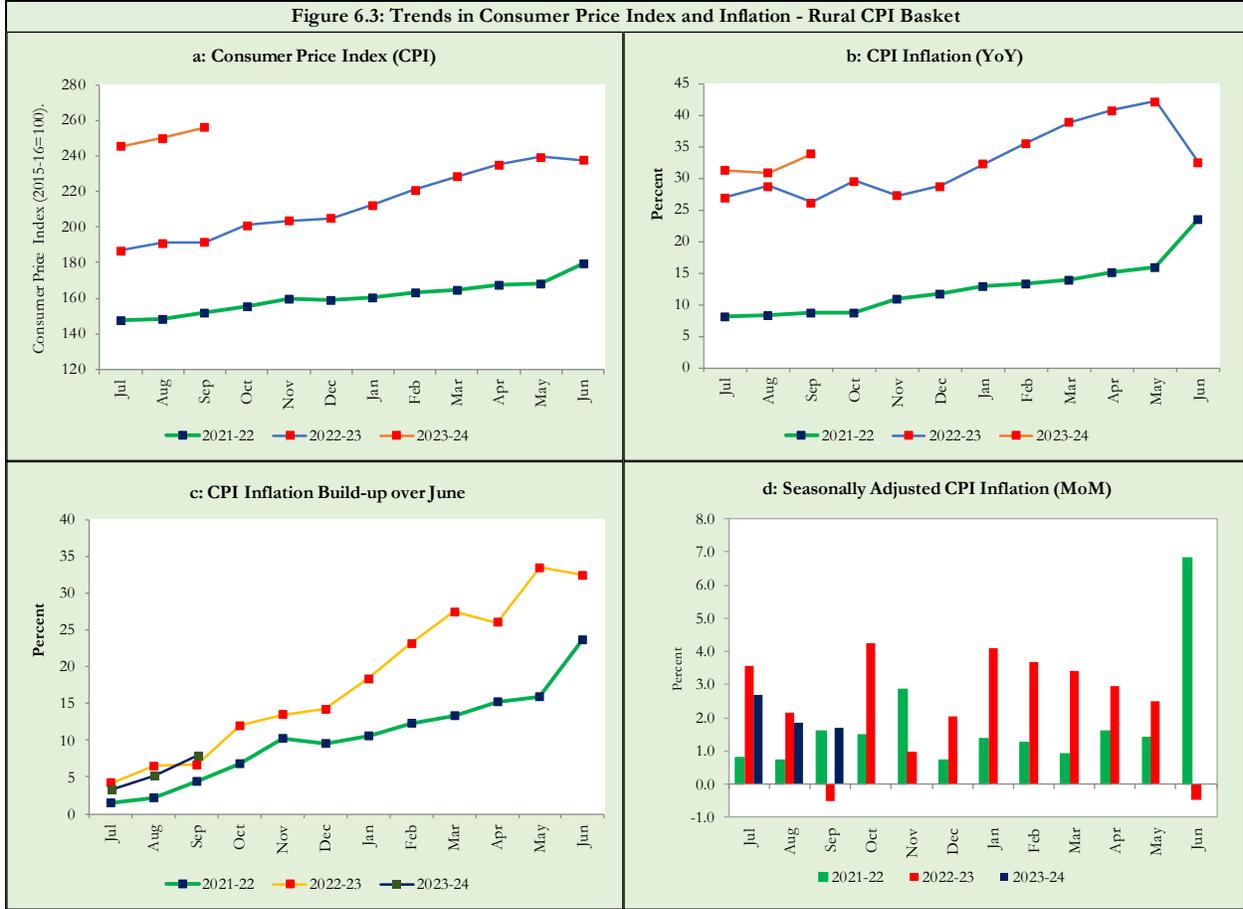




Figure 6.3: Trends in Consumer Price Index and Inflation - Rural CPI Basket



## 7. Weighted Contribution

In overall Urban CPI Inflation, the weighted contribution of:

- Food group decreased to 47.3 percent during September 2023 from 60.0 percent in previous month. It was 56.0 percent during the corresponding month of last year.
- Non-food group increased to 52.7 percent in September 2023 from 40.0 percent in previous month. It was 44.0 percent during the corresponding month of last year (**Table 7.1**).

Period	CPI	Food Group			Non-food Group				NFNE excl HRI
		Overall	Perishable	Non-Perishable	Overall	Energy	Core Inflation (NFNE)	HRI	
	a=(b+e)	b=(c+d)	c	d	e=(f+g)	f	g=(h+i)	h	i
Sep-22	100.0	56.0	10.1	45.8	44.0	9.2	34.8	4.8	30.0
Oct-22	100.0	54.3	12.6	41.7	45.7	15.0	30.7	3.8	26.9
Nov-22	100.0	53.5	9.2	44.2	46.6	12.8	33.8	4.3	29.5
Dec-22	100.0	57.3	10.0	47.3	42.7	8.5	34.2	4.2	30.0
Jan-23	100.0	60.0	9.4	50.6	40.0	7.9	32.1	3.9	28.1
Feb-23	100.0	55.2	6.6	48.6	44.8	14.8	30.0	3.3	26.7
Mar-23	100.0	54.9	6.5	48.4	45.0	16.3	28.7	2.9	25.9
Apr-23	100.0	54.7	4.1	50.6	45.3	15.8	29.4	2.8	26.7
May-23	100.0	54.2	4.2	50.0	45.8	16.9	28.9	2.6	26.3
Jun-23	100.0	58.5	4.3	54.2	41.5	8.5	33.0	3.2	29.8
Jul-23	100.0	59.7	4.4	55.3	40.3	7.1	33.1	3.1	30.0
Aug-23	100.0	60.0	2.0	58.0	40.0	5.4	34.6	3.2	31.4
Sep-23	100.0	47.3	0.9	46.4	52.7	22.6	30.1	2.8	27.4

Note: The weighted contribution of sub-indices may not exactly tally with the weighted contribution of overall CPI index due to rounding off

In overall Rural CPI Inflation, the weighted contribution of:

- Food group decreased to 52.8 percent during September 2023 from 62.9 percent in previous month. It was 60.1 percent during the corresponding month of last year.
- Non-food group increased to 47.3 percent in September 2023 from 37.1 percent in previous month. It was 39.9 percent during the corresponding month of last year (**Table 7.2**).

Period	CPI	Food Group			Non-food Group				NFNE excl HRI
		Overall	Perishable	Non-Perishable	Overall	Energy	Core Inflation (NFNE)	HRI	
	a=(b+e)	b=(c+d)	c	d	e=(f+g)	f	g=(h+i)	h	i
Sep-22	100.0	60.1	11.6	48.5	39.9	12.6	27.3	1.8	25.5
Oct-22	100.0	60.7	15.2	45.5	39.3	14.6	24.7	1.6	23.1
Nov-22	100.0	59.4	10.8	48.6	40.6	13.7	26.9	1.6	25.3
Dec-22	100.0	61.9	10.9	50.9	38.1	11.6	26.5	1.6	25.0
Jan-23	100.0	65.5	9.9	55.6	34.5	10.3	24.2	1.7	22.6
Feb-23	100.0	62.5	8.3	54.3	37.5	13.3	24.2	1.5	22.7
Mar-23	100.0	61.8	7.7	54.1	38.2	14.3	23.9	1.3	22.5
Apr-23	100.0	62.1	5.1	57.0	37.8	13.4	24.4	1.3	23.1
May-23	100.0	60.6	4.8	55.7	39.4	13.9	25.5	1.3	24.3
Jun-23	100.0	62.2	4.2	57.9	37.9	8.0	29.9	1.5	28.3
Jul-23	100.0	63.7	4.1	59.6	36.3	6.8	29.5	1.6	27.9
Aug-23	100.0	62.9	2.9	60.0	37.1	5.7	31.3	1.6	29.7
Sep-23	100.0	52.8	0.8	52.0	47.3	16.7	30.5	1.5	29.1

Note: The weighted contribution of sub-indices may not exactly tally with the weighted contribution of overall CPI index due to rounding off

## 8. Inflation Diffusion Index

Inflation Diffusion Index (IDI) is the difference between the share of items with increasing prices (i.e. depicting MoM inflation) and falling prices (i.e. depicting MoM deflation) in CPI basket. IDI for Urban and Rural CPI baskets is presented in **Table 8.1 (a & b)**.

**Table 8.1 (a): Inflation Diffusion Index of Urban CPI Basket (MoM)**

Group	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23
General	62.4	66.3	54.5	56.7	68.8	78.9	73.6	64.9	65.2	55.9	64.0	72.2	66.0
Food & Non-Alcoholic Beverages	56.7	43.3	18.9	26.7	55.6	68.9	66.7	50.0	44.4	24.4	55.6	41.1	51.1
Alcoholic Beverages & Tobacco	100.0	100.0	100.0	100.0	33.3	100.0	100.0	100.0	100.0	33.3	66.7	100.0	66.7
Clothing & Footwear	62.5	72.5	75.0	77.5	77.5	67.5	72.5	70.0	70.0	72.5	72.5	80.0	72.5
Housing, Water, Elec, Gas & other Fuels	3.4	51.7	24.1	10.3	58.6	75.9	48.3	10.3	44.8	51.7	65.5	75.9	41.4
Furnishing & Household Equip. Maintenance etc.	97.6	100.0	100.0	95.2	100.0	100.0	100.0	100.0	100.0	95.2	100.0	100.0	95.2
Health	87.1	80.6	83.9	71.0	80.6	87.1	77.4	67.7	74.2	67.7	74.2	87.1	100.0
Transport	37.5	46.9	34.4	25.0	34.4	90.6	81.3	59.4	37.5	46.9	43.8	62.5	65.6
Communication	40.0	40.0	20.0	40.0	20.0	40.0	40.0	20.0	40.0	40.0	40.0	40.0	40.0
Recreation & Culture	72.0	80.0	24.0	72.0	84.0	80.0	56.0	72.0	64.0	32.0	32.0	76.0	20.0
Education	12.5	37.5	50.0	56.3	31.3	31.3	62.5	56.3	62.5	56.3	12.5	68.8	62.5
Restaurant & Hotels	92.9	100.0	100.0	100.0	85.7	92.9	92.9	92.9	100.0	92.9	85.7	92.9	92.9
Miscellaneous	93.1	89.7	100.0	96.6	100.0	100.0	86.2	100.0	100.0	82.8	86.2	100.0	82.8
NFNE	67.2	76.6	71.5	72.3	76.6	82.6	77.0	75.7	74.5	68.9	67.2	83.8	74.5

See Annexure B (Technical Notes) for the methodology of Inflation Diffusion Index.

**Table 8.1 (b): Inflation Diffusion Index of Rural CPI Basket (MoM)**

Group	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23
General	67.2	68.0	54.5	48.8	67.6	77.9	72.5	63.1	63.1	54.1	62.3	68.4	67.6
Food & Non-Alcoholic Beverages	62.0	55.7	13.9	12.7	57.0	62.0	53.2	39.2	43.0	19.0	43.0	35.4	49.4
Alcoholic Beverages & Tobacco	100.0	60.0	100.0	80.0	80.0	100.0	100.0	100.0	40.0	40.0	60.0	80.0	80.0
Clothing & Footwear	66.7	81.5	96.3	85.2	81.5	96.3	92.6	92.6	92.6	92.6	85.2	85.2	92.6
Housing, Water, Elec, Gas & other Fuels	30.4	56.5	34.8	0.0	82.6	56.5	69.6	21.7	47.8	65.2	73.9	95.7	52.2
Furnishing & Household Equip. Maintenance etc.	88.5	100.0	100.0	96.2	96.2	100.0	100.0	88.5	92.3	92.3	96.2	100.0	92.3
Health	92.9	64.3	100.0	78.6	35.7	85.7	64.3	71.4	64.3	64.3	57.1	57.1	92.9
Transport	68.8	31.3	18.8	25.0	12.5	81.3	81.3	62.5	37.5	37.5	62.5	75.0	56.3
Communication	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	40.0	20.0
Recreation & Culture	69.2	84.6	46.2	84.6	76.9	92.3	69.2	84.6	84.6	38.5	38.5	69.2	46.2
Education	0.0	100.0	80.0	80.0	80.0	80.0	80.0	100.0	80.0	60.0	0.0	100.0	80.0
Restaurants & Hotels	85.7	85.7	85.7	71.4	85.7	85.7	85.7	78.6	71.4	85.7	85.7	78.6	92.9
Miscellaneous	94.1	88.2	100.0	94.1	94.1	100.0	88.2	100.0	100.0	88.2	82.4	100.0	88.2
NFNE	72.1	76.5	80.9	74.3	72.8	86.8	80.9	81.6	77.2	74.3	69.9	83.8	79.4

See Annexure B (Technical Notes) for the methodology of Inflation Diffusion Index.

## 9. Domestic Food Commodity Prices (Growth)

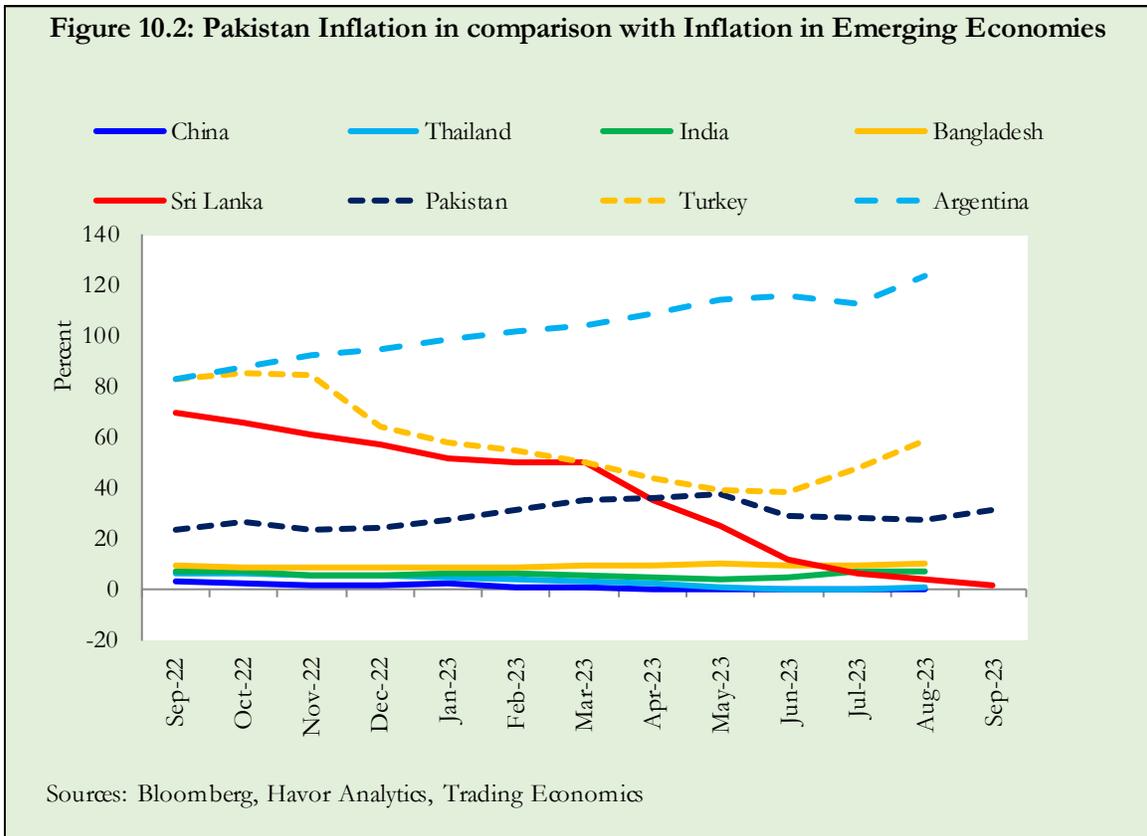
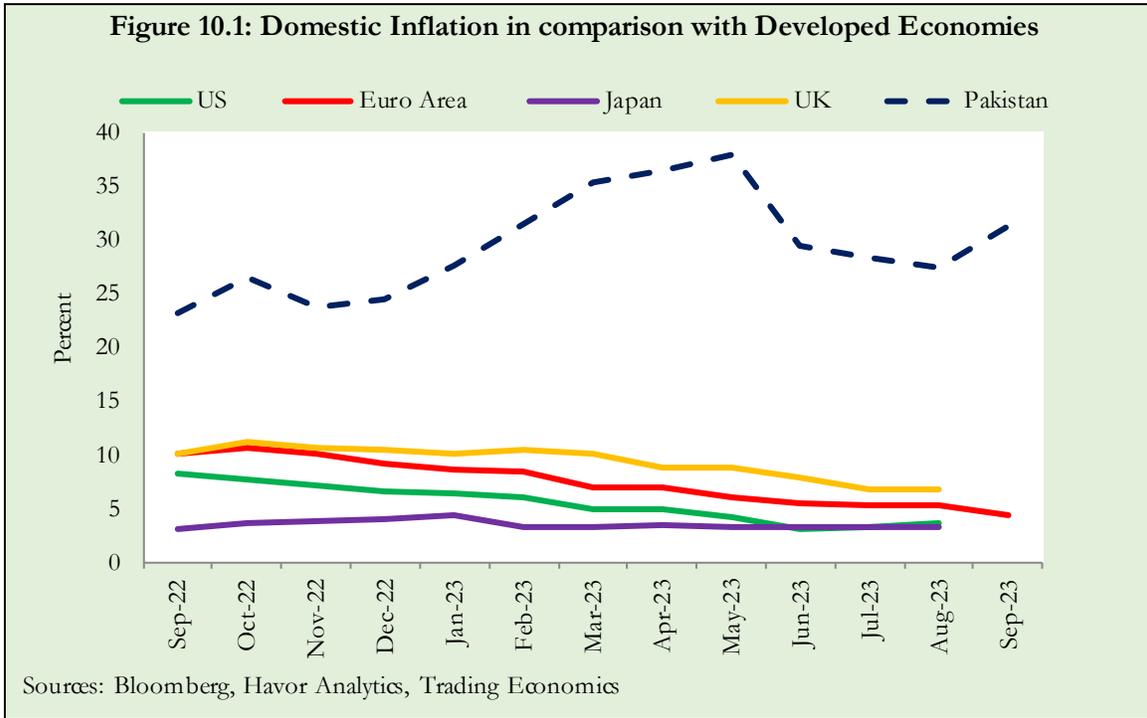
Growth in domestic food commodity prices for selected essential food items covering both urban and rural CPI baskets is given in **Table 9.1**.

Table 9.1: Inflation in Domestic Urban and Rural CPI Food Commodities (percent)- September 2023						
S. No	Item	Unit	Urban CPI		Rural CPI	
			YoY	MoM	YoY	MoM
1	Wheat	10 Kg	41.0	-1.0	52.6	-0.3
2	Wheat Flour Bag	20 Kg	109.1	-0.5	93.3	0.6
3	Rice Basmati Broken (Superior/Average Quality)*	1 Kg	37.1	0.8	83.2	5.3
4	Beef With Bone (Average Quality)	1 Kg	19.3	1.0	19.5	2.3
5	Mutton (Average Quality)	1 Kg	18.2	0.5	21.2	2.0
6	Chicken Farm Broiler (Live)	1 Kg	30.7	-11.8	34.8	-9.4
7	Milk Fresh (Un-Boiled)	1 Liter	27.6	2.2	29.5	0.3
8	Eggs Farm	Dozen	22.4	1.4	23.1	2.4
9	Vegetable Ghee Dalda/Habib Or Other Superior Quality 1 Kg Pouch	Each	1.0	-0.6	-2.5	-0.6
10	Pulse Masoor (Washed)	1 Kg	3.5	19.8	-2.0	14.1
11	Pulse Moong (Washed)	1 Kg	12.6	5.5	14.8	4.9
12	Pulse Mash (Washed)	1 Kg	36.4	9.5	39.6	8.0
13	Pulse Gram	1 Kg	-1.5	2.9	2.6	3.5
14	Potatoes	1 Kg	34.8	-1.2	37.2	-1.3
15	Onions	1 Kg	-0.7	39.3	-7.9	45.2
16	Tomatoes	1 Kg	-20.7	-13.8	-32.0	-16.1
17	Sugar Refined	1 Kg	90.0	10.3	93.5	12.5
18	Garlic (Lehsun)	1 Kg	31.1	13.9	37.0	17.3
19	Ginger (Adrak)	500 Gm	189.6	25.5	183.1	14.7
20	Tea Lipton Yellow Label 190 Gm Packet	Each	73.0	-0.7	83.7	-0.5

\* Superior Quality for Urban CPI Basket and Average Quality for Rural CPI Basket

### 10. Inflation in Global Context

Inflation trends in selected developed and emerging economies is given in **Figures 10.1 & 10.2**.

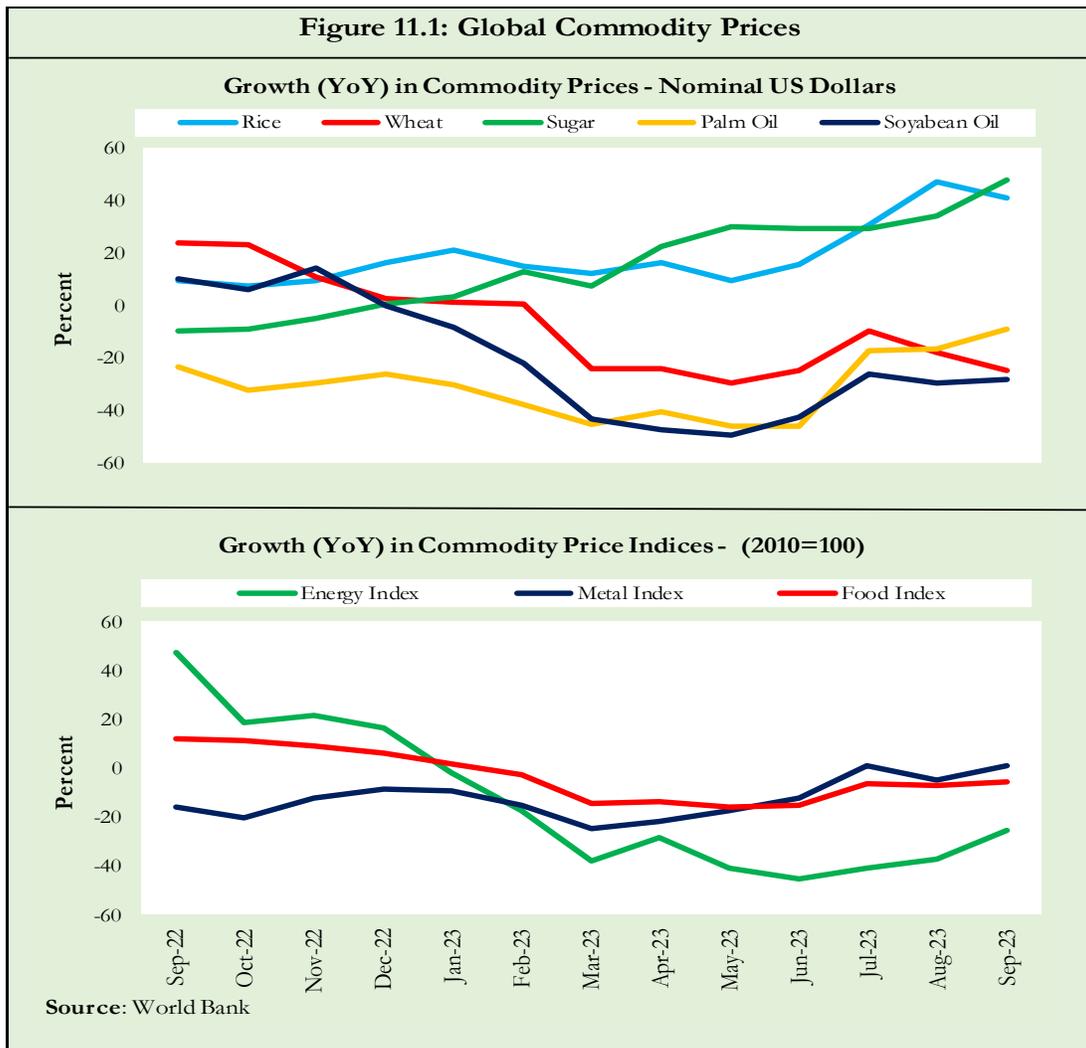


### 11. Global Commodity Prices and Indices (Growth)

Global commodity prices may influence domestic inflation. In this context, changes in major global commodity prices and indices along with price trends are given in **Table 11.1** and **Figure 11.1**.

Table 11.1: Changes in Major Global Indices (percent)						
Item/Group	Sep-23		Aug-23		Sep-22	
	YoY	MoM	YoY	MoM	YoY	MoM
Food	-5.4	2.0	-7.1	-2.2	12.1	0.1
Metals	0.8	0.1	-4.8	-1.6	-15.7	-5.4
Energy	-25.6	8.3	-37.1	7.8	47.6	-8.4
Agricultural	-3.7	1.6	-6.1	-2.1	7.3	-1.0
Cotton	-16.7	2.1	-22.9	3.0	13.4	-5.5

Data Source: World Bank



## 12. Seasonal Adjustment in CPI

Seasonal adjustment is the process of removing seasonality effects in a time series data through decomposing it into seasonal, trend, cycle and irregular components. The purpose is to get clear picture of price movements. Various statistical methods are available to decompose a time series into its constituent components. The State Bank of Pakistan uses X-12-ARIMA Seasonal Adjustment Method for this purpose.

The changes in consumer prices are normally reported in terms of YoY and MoM basis. Seasonal adjustment is particularly useful for analyzing MoM changes. The monthly data series of CPI from July 2008 to September 2023 has been used for this analysis.

**Figures 12.1(a to c)** show that the seasonality in all CPI series has been increasing over the period. Average seasonal factors reveal strong seasonality during the calendar year. There is an upward seasonality during Jul-Dec while downward seasonality in the remaining months.

Figure 12.1 (a): Seasonal Factor of National CPI

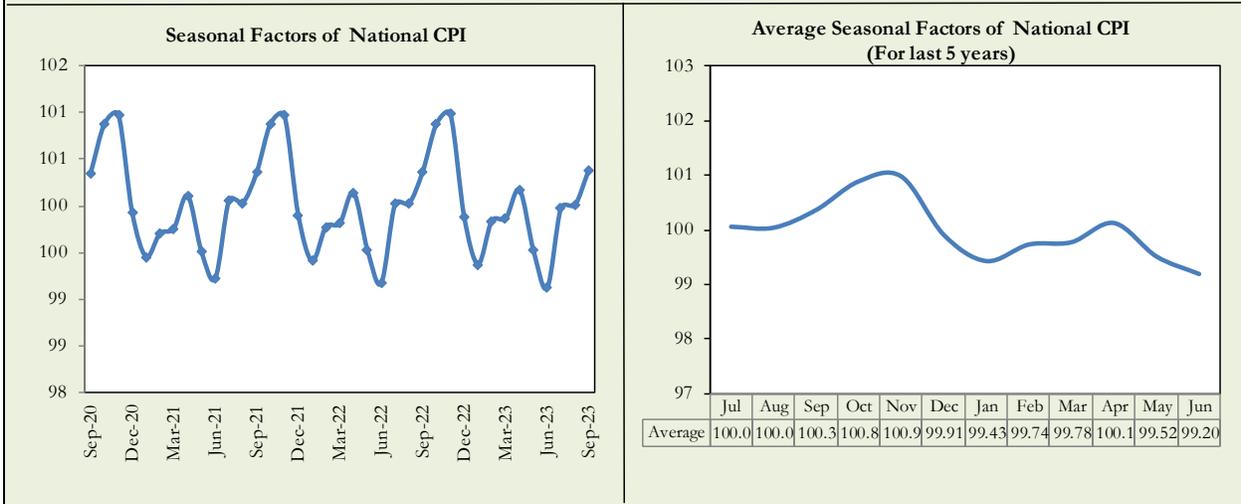


Figure 12.1 (b): Seasonal Factor of Urban CPI

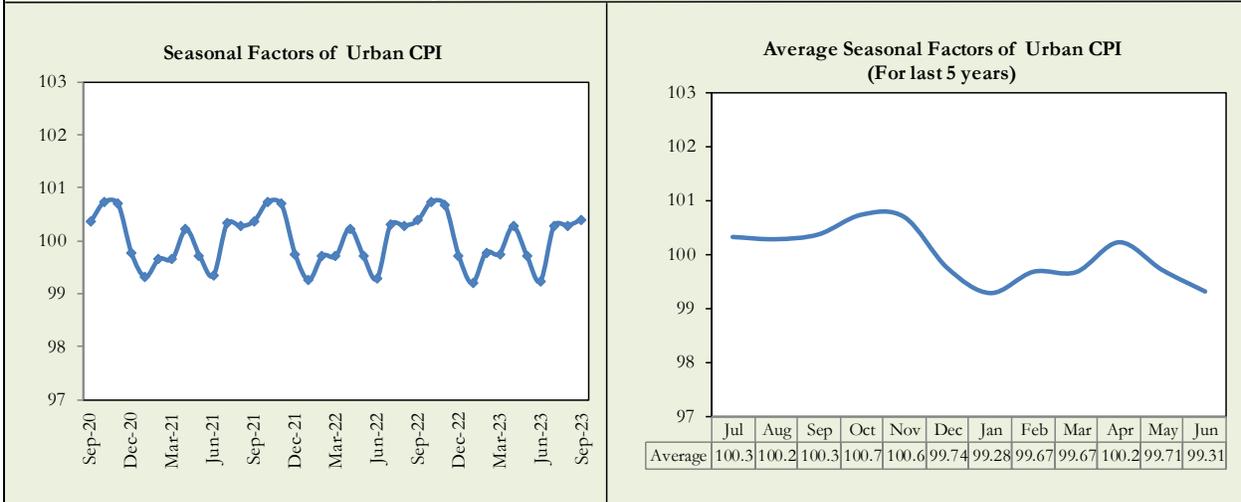
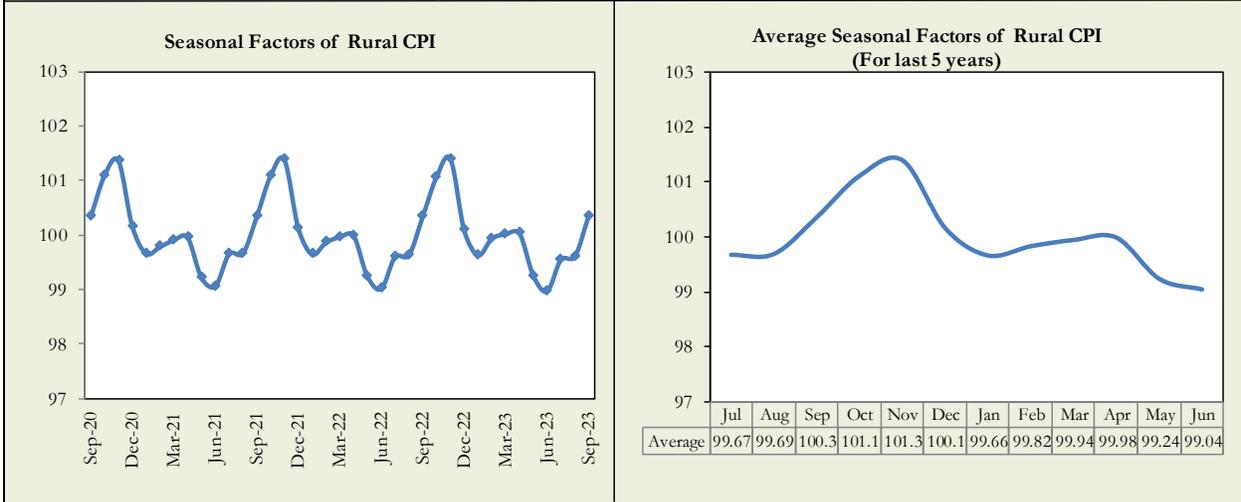
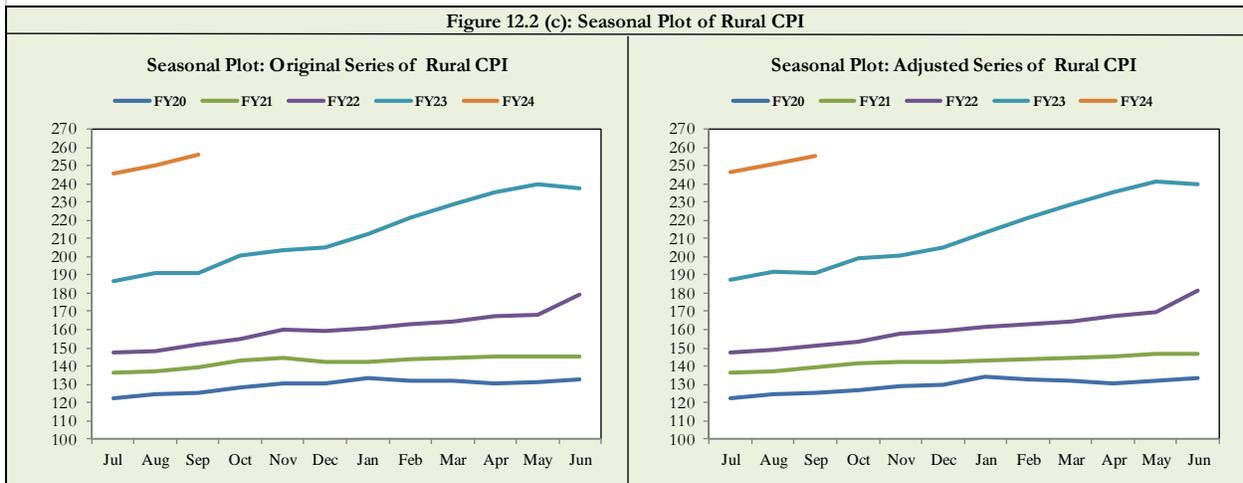
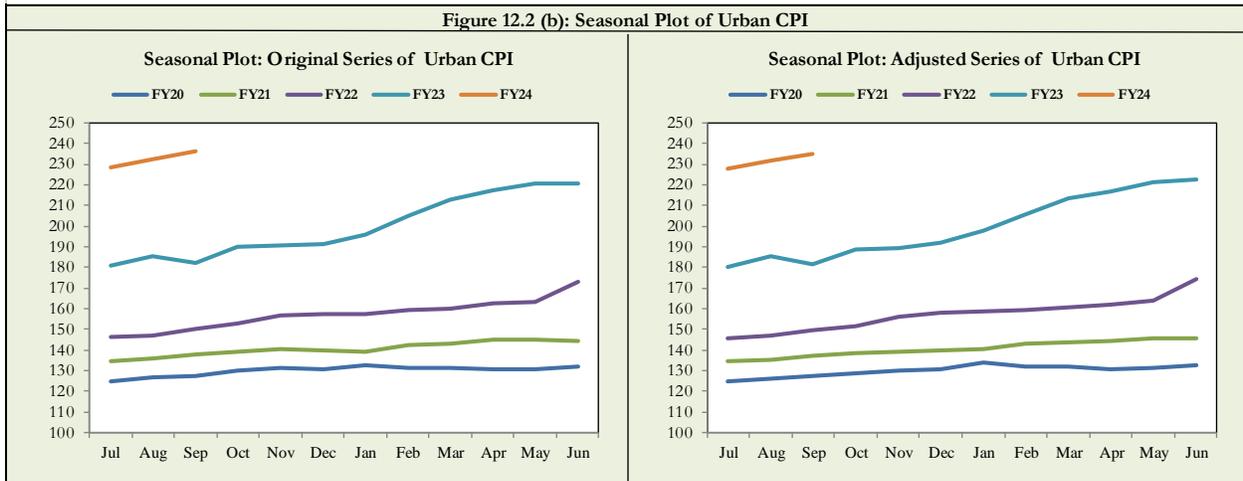
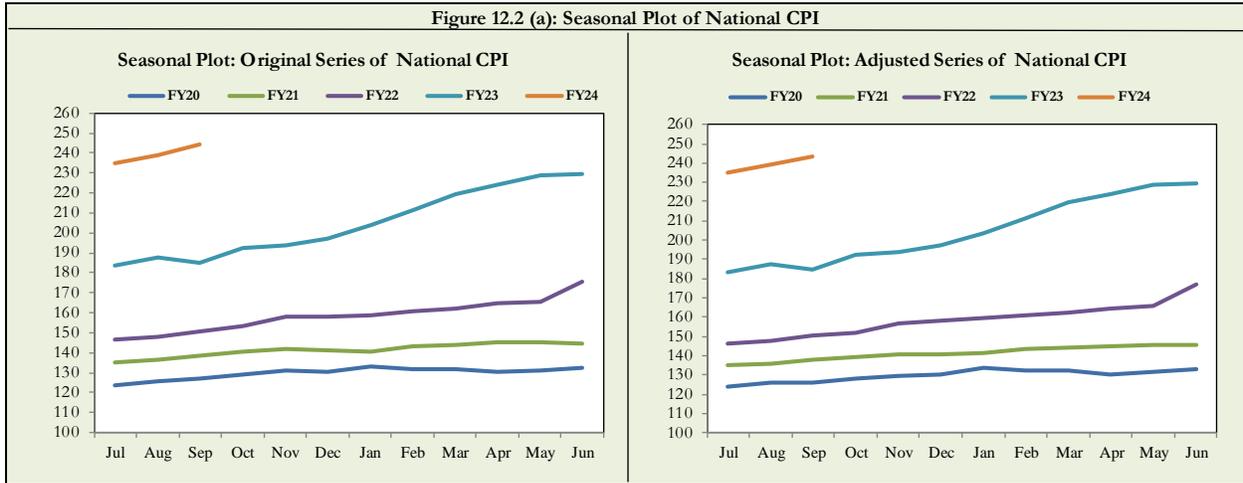


Figure 12.1 (c): Seasonal Factor of Rural CPI

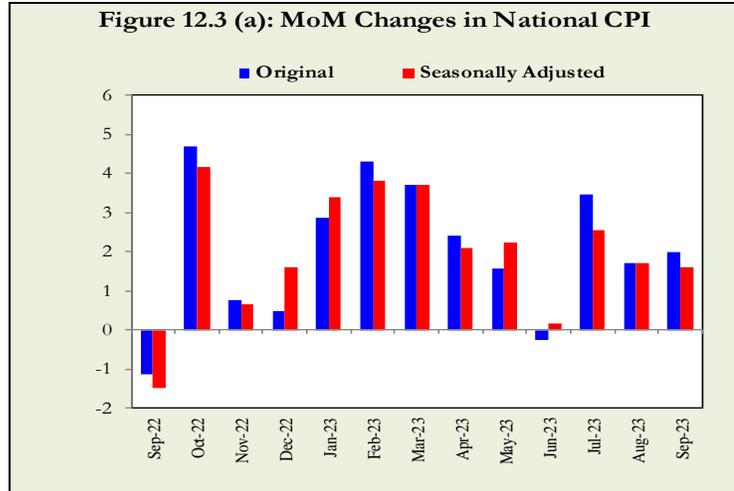


Figures 12.2(a to c) show seasonally adjusted series. The trend follows the long-term movement in original series.



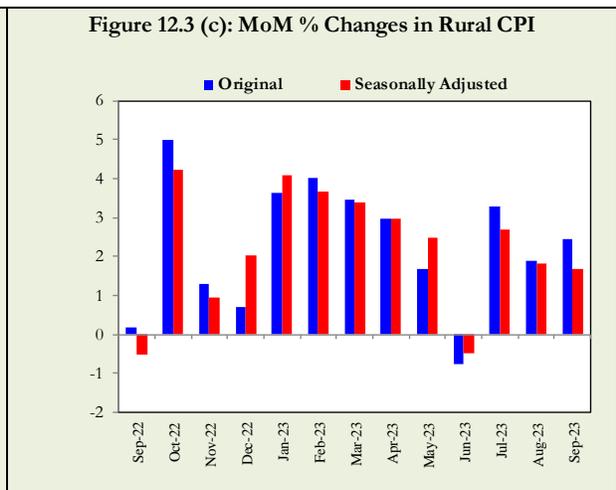
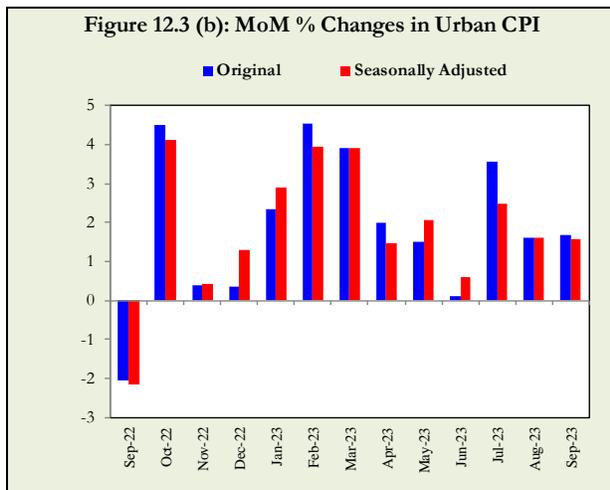
Seasonally adjusted Index of

- National CPI for September 2023 stood at 243.13 against 244.05 in original series showing a decrease of 0.92.
- Urban CPI for September 2023 stood at 235.07 against 235.99 in original series showing a decrease of 0.92.
- Rural CPI for September 2023 stood at 255.29 against 256.21 in original series showing a decrease of 0.92.



Month-on-month change of seasonally adjusted

- National CPI series showed an inflation of 1.62 percent during September 2023 over previous month against an inflation of 2.00 percent in original series.
- Urban CPI series showed an inflation of 1.56 percent during September 2023 over previous month against an inflation of 1.67 percent in original series.
- Rural CPI series showed an inflation of 1.69 percent during September 2023 over previous month against an inflation of 2.46 percent in original series.



## List of Illustrations Tables

### Table A1: Inflation – Summary

Period	CPI							WPI			SPT**	Core Inflation			
	General			Food		Non-food		General	Food	Non-food		NFNE*		Trimmed	
	National	Urban	Rural	Urban	Rural	Urban	Rural					Urban	Rural	Urban	Rural
<b>Annual Average</b>															
FY21	8.9	8.1	10.0	12.4	13.1	5.7	7.4	9.4	14.5	6.6	11.2	6.0	7.6	7.6	9.6
FY22	12.2	11.8	12.7	13.4	13.0	10.8	12.3	24.9	13.1	32.0	16.9	8.1	9.0	10.4	11.2
FY23	29.2	26.9	32.6	37.6	41.1	20.1	24.8	32.8	35.5	31.4	36.8	16.2	20.6	24.1	30.7
<b>Year-on-Year</b>															
Sep-22	23.2	21.2	26.1	30.8	32.7	15.2	20.1	38.9	29.6	44.0	35.9	14.4	17.6	19.5	24.4
Oct-22	26.6	24.6	29.5	34.7	37.2	18.2	22.4	32.6	32.0	32.9	28.6	14.9	18.2	22.0	26.7
Nov-22	23.8	21.6	27.2	29.7	33.5	16.4	21.4	27.7	27.7	27.7	29.7	14.6	18.5	19.8	25.4
Dec-22	24.5	21.6	28.8	32.7	37.9	14.8	20.7	27.1	31.0	25.2	29.7	14.7	19.0	19.4	26.4
Jan-23	27.6	24.4	32.3	39.0	45.2	15.6	20.9	28.5	35.6	24.9	31.7	15.4	19.4	20.9	27.8
Feb-23	31.5	28.8	35.6	41.9	47.0	20.8	25.3	36.4	40.7	34.3	37.1	17.1	21.5	25.1	31.6
Mar-23	35.4	33.0	38.9	47.1	50.2	24.1	28.5	37.5	45.2	33.7	44.0	18.6	23.1	28.7	35.0
Apr-23	36.4	33.5	40.7	46.8	52.2	24.9	29.9	33.4	44.4	28.0	45.9	19.5	24.9	28.6	37.3
May-23	38.0	35.1	42.2	48.1	52.4	26.6	32.5	32.8	47.7	25.6	47.0	20.0	26.9	30.5	38.8
Jun-23	29.4	27.3	32.4	40.8	41.5	18.7	23.8	22.4	37.5	15.2	36.0	18.5	25.2	22.9	29.9
Jul-23	28.3	26.3	31.3	40.2	41.3	17.3	22.0	23.1	38.0	15.9	29.0	18.4	24.6	21.7	28.7
Aug-23	27.4	25.0	30.9	38.8	40.6	16.3	22.0	24.3	36.6	18.5	28.7	18.4	25.9	23.0	30.5
Sep-23	31.4	29.7	33.9	33.9	35.4	26.8	32.3	26.4	33.1	23.1	32.4	18.6	27.3	25.0	33.3
<b>12- Month Moving Average</b>															
Sep-22	16.3	15.6	17.4	18.2	18.7	14.0	16.3	30.4	17.2	38.1	23.0	9.9	11.5	13.7	15.4
Oct-22	17.8	16.9	19.2	20.4	21.3	14.7	17.3	31.3	19.1	38.3	24.2	10.6	12.4	15.2	17.0
Nov-22	18.9	17.7	20.6	22.0	23.5	15.1	18.0	31.3	20.5	37.4	25.3	11.1	13.3	16.4	18.2
Dec-22	19.9	18.4	22.0	23.7	25.9	15.2	18.5	31.3	22.2	36.3	26.2	11.7	14.2	17.3	19.6
Jan-23	21.1	19.4	23.7	25.9	28.7	15.4	19.1	31.5	24.1	35.7	27.2	12.3	15.0	17.7	21.1
Feb-23	22.7	20.8	25.5	28.2	31.4	16.3	20.2	32.6	26.4	35.9	28.7	13.1	16.0	19.0	23.0
Mar-23	24.6	22.6	27.6	30.9	34.3	17.5	21.6	33.7	29.0	36.2	31.1	13.9	17.1	20.6	25.0
Apr-23	26.6	24.4	29.8	33.5	37.3	18.7	23.0	34.1	31.5	35.5	33.6	14.7	18.3	22.3	27.4
May-23	28.6	26.3	32.0	36.3	40.0	20.0	24.6	34.3	34.3	34.3	36.1	15.6	19.6	24.4	30.0
Jun-23	29.2	26.9	32.6	37.6	41.1	20.1	24.8	32.8	35.5	31.4	36.8	16.2	20.6	24.1	30.7
Jul-23	29.4	27.0	32.9	38.6	42.0	19.8	24.6	31.4	36.6	28.8	36.2	16.7	21.4	24.8	30.8
Aug-23	29.4	26.9	33.1	39.4	42.7	19.1	24.1	30.1	37.3	26.4	35.1	17.1	22.2	23.7	30.6
Sep-23	30.0	27.6	33.6	39.5	42.8	20.0	25.2	29.1	37.5	24.9	34.8	17.4	23.0	24.4	31.1
<b>Period Average (Since July)</b>															
Sep-22	25.1	23.7	27.3	29.0	30.9	20.4	24.0	39.6	26.7	46.7	36.9	13.4	16.2	21.4	24.6
Oct-22	25.5	23.9	27.9	30.5	32.5	19.8	23.6	37.7	28.1	43.1	34.8	13.8	16.7	21.9	25.0
Nov-22	25.1	23.4	27.7	30.3	32.7	19.1	23.1	35.6	28.0	39.7	33.7	13.9	17.1	21.9	25.1
Dec-22	25.0	23.1	27.9	30.7	33.6	18.4	22.7	34.1	28.5	37.1	33.0	14.1	17.4	21.6	25.4
Jan-23	25.4	23.3	28.5	31.9	35.3	17.9	22.4	33.3	29.5	35.2	32.8	14.3	17.7	21.7	26.5
Feb-23	26.2	24.0	29.5	33.2	36.8	18.3	22.8	33.7	31.0	35.1	33.4	14.6	18.2	22.1	27.3
Mar-23	27.3	25.0	30.6	34.8	38.4	19.0	23.5	34.1	32.6	34.9	34.6	15.1	18.8	23.0	28.5
Apr-23	28.2	25.9	31.6	36.1	39.9	19.6	24.1	34.1	33.9	34.2	35.8	15.5	19.4	23.9	29.6
May-23	29.2	26.8	32.7	37.3	41.1	20.3	24.9	33.9	35.2	33.3	36.9	16.0	20.1	24.8	30.7
Jun-23	29.2	26.9	32.6	37.6	41.1	20.1	24.8	32.8	35.5	31.4	36.8	16.2	20.6	24.1	30.7
Jul-23	28.3	26.3	31.3	40.2	41.3	17.3	22.0	23.1	38.0	15.9	29.0	18.4	24.6	21.7	28.7
Aug-23	27.8	25.6	31.1	39.5	40.9	16.8	22.0	23.7	37.3	17.2	28.8	18.4	25.3	22.7	29.7
Sep-23	29.0	27.0	32.0	37.5	39.0	20.0	25.3	24.6	35.8	19.2	30.1	18.5	26.0	20.6	30.7
<b>Month-on-Month</b>															
Sep-22	-1.2	-2.1	0.2	5.2	5.7	-6.6	-4.9	1.4	5.0	-0.2	-0.6	0.9	1.4	1.6	2.5
Oct-22	4.7	4.5	5.0	4.5	6.1	4.5	3.9	-0.5	3.4	-2.4	-2.4	1.3	1.5	1.9	2.7
Nov-22	0.8	0.4	1.3	0.0	0.5	0.6	2.1	0.0	-1.4	0.7	4.9	0.8	2.1	0.5	1.8
Dec-22	0.5	0.3	0.7	0.0	0.1	0.6	1.4	-0.7	1.5	-1.8	0.3	1.2	1.5	0.8	1.5
Jan-23	2.9	2.4	3.6	3.9	5.7	1.2	1.5	1.8	4.0	0.6	1.3	1.4	1.5	1.5	2.1
Feb-23	4.3	4.5	4.0	4.3	3.9	4.7	4.1	8.2	5.3	9.8	5.4	2.2	2.6	2.9	3.9
Mar-23	3.7	3.9	3.5	5.6	4.5	2.7	2.4	4.7	6.3	3.8	5.7	2.5	2.4	2.7	2.9
Apr-23	2.4	2.0	3.0	3.4	4.2	1.0	1.6	0.1	2.2	-1.0	2.4	1.8	2.7	1.5	2.0
May-23	1.6	1.5	1.7	1.9	1.4	1.2	2.0	1.0	2.4	0.2	1.3	1.2	2.5	1.5	2.0
Jun-23	-0.3	0.1	-0.8	0.1	-1.6	0.1	0.1	-0.3	0.2	-0.5	0.0	0.7	0.9	0.8	0.1
Jul-23	3.5	3.6	3.3	3.7	3.5	3.5	3.0	2.5	2.1	2.8	2.1	1.2	1.2	1.9	2.4
Aug-23	1.7	1.6	1.9	0.6	0.8	2.4	3.1	4.2	1.1	5.9	5.5	1.8	2.8	1.5	1.4
Sep-23	2.0	1.7	2.5	1.5	1.8	1.8	3.2	3.1	2.3	3.6	2.2	1.0	2.6	1.1	1.7

\* Non-Food Non-Energy, \*\* SPT for all expenditure groups combined

**Table A2: National CPI Inflation by Groups (YoY and MoM in percent)**

Groups	Weights	MoM Change			YoY Change		
		Sep-22	Aug-23	Sep-23	Sep-22	Aug-23	Sep-23
Food and Non-Alcoholic Beverages	34.6	5.8	0.6	1.6	31.7	38.5	33.1
Alcoholic Beverages, Tobacco	1.0	5.9	0.4	0.5	32.7	97.5	87.5
Clothing and Footwear	8.6	0.3	1.2	2.1	17.7	18.5	20.6
Housing, Water, Elec., Gas and Other Fuels	23.6	-17.7	1.1	0.5	3.4	6.3	29.7
Furnishing and Household Equip. Maintenance	4.1	3.4	2.3	1.7	25.1	41.7	39.3
Health	2.8	2.2	2.0	4.5	13.8	22.6	25.3
Transport	5.9	2.2	7.9	9.1	64.5	23.0	31.3
Communication	2.2	0.1	0.3	0.4	1.3	7.0	7.4
Recreation and Culture	1.6	2.0	3.5	0.4	22.8	61.4	58.8
Education	3.8	0.0	3.4	0.6	10.0	10.5	11.1
Restaurants and Hotels	6.9	2.2	1.8	2.4	28.8	34.1	34.3
Miscellaneous	4.9	3.8	3.9	0.6	22.9	40.8	36.4
<b>National CPI</b>	<b>100.0</b>	<b>-1.2</b>	<b>1.7</b>	<b>2.0</b>	<b>23.2</b>	<b>27.4</b>	<b>31.4</b>

**Table A3: Urban CPI Inflation by Groups (YoY and MoM in percent)**

Groups	Weights	MoM Change			YoY Change		
		Sep-22	Aug-23	Sep-23	Sep-22	Aug-23	Sep-23
<b>I. Food Group</b>	<b>36.8</b>	<b>5.2</b>	<b>0.6</b>	<b>1.5</b>	<b>30.8</b>	<b>38.8</b>	<b>33.9</b>
Food and Non-Alcoholic Beverages	30.4	5.4	0.4	1.6	30.7	37.2	32.2
Alcoholic Beverages, Tobacco	0.9	6.8	0.3	0.4	34.1	96.5	84.8
Restaurants and Hotels (Food Component)	5.5	3.6	2.1	1.3	31.0	38.4	35.3
<b>II. Non-Food Group</b>	<b>63.2</b>	<b>-6.6</b>	<b>2.4</b>	<b>1.8</b>	<b>15.2</b>	<b>16.3</b>	<b>26.8</b>
Clothing and Footwear	8.0	0.1	1.2	1.5	18.9	16.0	17.6
Housing, Water, Elec., Gas and Other Fuels	27.0	-17.8	1.1	0.2	1.0	5.3	28.3
Furnishing and Household Equip. Maintenance	4.1	4.1	2.4	1.4	24.3	41.4	37.7
Health	2.3	1.0	2.1	4.7	12.3	22.5	26.9
Transport	6.1	2.0	6.1	7.8	63.3	20.7	27.4
Communication	2.4	0.1	0.0	0.5	1.2	8.9	9.4
Recreation and Culture	1.7	2.0	3.6	0.2	21.1	61.7	58.9
Education	4.9	0.0	3.6	0.4	10.0	8.7	9.1
Restaurants and Hotels (Non-Food Component)	1.9	0.2	1.9	3.7	23.2	25.9	30.3
Miscellaneous	4.8	3.9	3.5	0.4	23.1	39.3	34.7
<b>Urban CPI</b>	<b>100.0</b>	<b>-2.1</b>	<b>1.6</b>	<b>1.7</b>	<b>21.2</b>	<b>25.0</b>	<b>29.7</b>

**Table A4: Rural CPI Inflation by Groups (YoY and MoM in percent)**

Groups	Weights	MoM Change			YoY Change		
		Sep-22	Aug-23	Sep-23	Sep-22	Aug-23	Sep-23
<b>I. Food Group</b>	<b>45.9</b>	<b>5.7</b>	<b>0.8</b>	<b>1.8</b>	<b>32.7</b>	<b>40.6</b>	<b>35.4</b>
Food and Non-Alcoholic Beverages	40.9	6.2	0.8	1.7	32.8	39.9	34.1
Alcoholic Beverages, Tobacco	1.3	4.8	0.5	0.5	31.1	98.6	90.5
Restaurants and Hotels (Food Component)	3.8	1.7	1.2	3.0	32.0	31.8	33.4
<b>II. Non-Food Group</b>	<b>54.1</b>	<b>-4.9</b>	<b>3.1</b>	<b>3.2</b>	<b>20.1</b>	<b>22.0</b>	<b>32.3</b>
Clothing and Footwear	9.5	0.5	1.2	2.7	16.3	21.5	24.2
Housing, Water, Elec., Gas and Other Fuels	18.5	-17.5	1.1	1.1	8.6	8.3	32.7
Furnishing and Household Equip. Maintenance	4.1	2.4	2.2	2.0	26.2	42.2	41.7
Health	3.5	3.4	2.0	4.3	15.2	22.6	23.7
Transport	5.6	2.5	11.0	11.3	66.6	26.8	37.7
Communication	2.0	0.1	0.8	0.3	1.4	3.4	3.6
Recreation and Culture	1.4	2.2	3.2	0.7	25.7	60.9	58.5
Education	2.1	0.0	2.8	1.4	9.8	17.1	18.7
Restaurants and Hotels (Non-Food Component)	2.4	0.2	1.6	4.8	20.7	31.3	37.3
Miscellaneous	5.0	3.7	4.4	0.7	22.6	43.0	38.9
<b>Rural CPI</b>	<b>100.0</b>	<b>0.2</b>	<b>1.9</b>	<b>2.5</b>	<b>26.1</b>	<b>30.9</b>	<b>33.9</b>

Table A5: National CPI Inflation by Groups

Period	General	Food and Non-Alcoholic Beverages	Non-Perishable Food Items	Perishable Food Items	Alcoholic Beverages, Tobacco	Clothing and Footwear	Housing, Water, Elec., Gas and Other Fuels	Furnishing and Household Furniture	Health	Transport	Communication	Recreation and Culture	Education	Restaurants and Hotels	Misc. Goods and Services
<b>Year-on-Year</b>															
Sep-22	23.2	31.7	28.8	50.3	32.7	17.7	3.4	25.1	13.8	64.5	1.3	22.8	10.0	28.8	22.9
Oct-22	26.6	36.2	30.6	70.4	34.6	18.3	11.9	27.6	16.2	53.4	1.6	23.7	10.9	30.4	22.4
Nov-22	23.8	31.2	29.3	41.1	35.9	18.6	9.9	29.1	17.1	44.2	1.6	25.6	11.1	28.4	23.0
Dec-22	24.5	35.5	32.5	55.9	36.2	17.1	7.0	29.2	17.5	41.2	1.7	38.5	10.9	27.4	25.8
Jan-23	27.6	42.9	40.3	61.6	36.3	16.8	7.8	29.9	18.7	39.1	1.6	44.2	10.6	30.1	28.7
Feb-23	31.5	45.1	44.7	47.6	49.2	17.0	13.6	34.0	18.8	50.5	3.7	48.1	10.8	34.5	33.3
Mar-23	35.4	47.2	46.4	51.8	140.0	21.9	17.5	39.0	18.5	54.9	6.6	50.6	7.2	38.5	34.4
Apr-23	36.4	48.1	51.5	29.2	133.5	21.6	16.9	40.5	18.8	56.8	6.7	68.6	8.5	39.0	38.8
May-23	38.0	48.7	51.0	33.7	124.0	22.5	20.5	43.5	19.3	52.9	7.0	72.2	8.4	42.3	43.3
Jun-23	29.4	39.5	41.8	24.8	109.5	21.0	11.6	41.6	19.1	20.3	6.8	68.0	8.6	36.4	40.1
Jul-23	28.3	39.5	42.1	23.5	102.1	20.4	10.8	41.7	21.5	13.6	6.8	65.9	8.0	34.7	39.3
Aug-23	27.4	38.5	42.8	12.7	97.5	18.5	6.3	41.7	22.6	23.0	7.0	61.4	10.5	34.1	40.8
Sep-23	31.4	33.1	38.4	4.4	87.5	20.6	29.7	39.3	25.3	31.3	7.4	58.8	11.1	34.3	36.4
<b>12-Month Moving Average</b>															
Sep-22	16.3	18.6	18.5	19.5	10.5	12.3	12.9	15.8	10.4	38.1	2.0	12.1	6.6	17.4	13.7
Oct-22	17.8	21.1	20.1	27.3	13.2	13.0	12.9	17.4	11.1	41.4	1.9	13.5	7.4	19.3	14.9
Nov-22	18.9	22.9	21.4	32.2	16.1	13.8	12.5	18.9	11.8	43.0	1.9	15.0	8.1	20.7	16.0
Dec-22	19.9	25.0	23.0	38.3	18.9	14.3	11.7	20.4	12.5	44.3	1.8	17.7	8.8	22.0	17.3
Jan-23	21.1	27.5	25.2	42.6	21.8	14.7	11.0	21.8	13.3	45.4	1.7	20.7	9.4	23.4	18.9
Feb-23	22.7	30.0	27.9	43.5	25.7	15.3	11.4	23.5	14.0	47.5	1.8	24.1	10.0	25.1	20.8
Mar-23	24.6	32.7	30.8	45.2	37.3	16.3	12.2	25.7	14.8	49.8	2.2	27.6	9.9	27.2	22.7
Apr-23	26.6	35.3	33.8	44.8	48.3	17.3	13.0	27.9	15.5	52.0	2.6	32.6	9.9	29.2	24.9
May-23	28.6	37.9	36.8	45.1	58.2	18.2	14.2	30.2	16.2	53.5	3.0	37.7	9.8	31.4	27.4
Jun-23	29.2	39.0	38.2	43.8	66.4	18.8	14.0	32.1	16.8	49.2	3.4	42.2	9.7	32.6	29.5
Jul-23	29.4	39.8	39.3	42.6	73.3	19.3	13.1	34.0	17.7	44.2	3.9	46.5	9.5	33.4	31.3
Aug-23	29.4	40.4	40.4	40.4	79.4	19.3	11.3	35.6	18.6	40.6	4.4	49.8	9.6	33.9	33.1
Sep-23	30.0	40.4	41.1	35.7	83.7	19.6	13.4	36.7	19.5	38.1	4.9	52.7	9.7	34.3	34.2
<b>Period Average (Since September)</b>															
Sep-22	25.1	30.0	28.6	39.2	27.0	16.6	17.5	22.2	12.3	64.1	1.2	20.0	9.9	27.1	20.0
Oct-22	25.5	31.6	29.1	47.5	28.9	17.1	16.1	23.6	13.3	61.3	1.3	20.9	10.2	27.9	20.6
Nov-22	25.1	31.5	29.1	46.0	30.3	17.4	14.8	24.7	14.1	57.6	1.4	21.9	10.4	28.0	21.1
Dec-22	25.0	32.2	29.7	47.6	31.3	17.3	13.4	25.5	14.7	54.6	1.4	24.7	10.4	27.9	21.9
Jan-23	25.4	33.8	31.3	49.4	32.0	17.2	12.6	26.2	15.3	52.2	1.5	27.5	10.5	28.2	22.9
Feb-23	26.2	35.2	33.0	49.2	34.2	17.2	12.7	27.2	15.7	52.0	1.7	30.2	10.5	29.1	24.3
Mar-23	27.3	36.6	34.6	49.5	46.0	17.8	13.2	28.6	16.0	52.3	2.3	32.5	10.1	30.2	25.4
Apr-23	28.2	37.9	36.4	47.0	55.1	18.2	13.6	29.9	16.3	52.8	2.7	36.2	9.9	31.1	26.8
May-23	29.2	38.9	37.8	45.7	61.8	18.6	14.2	31.2	16.6	52.8	3.1	39.7	9.8	32.2	28.4
Jun-23	29.2	39.0	38.2	43.8	66.4	18.8	14.0	32.1	16.8	49.2	3.4	42.2	9.7	32.6	29.5
Jul-23	28.3	39.5	42.1	23.5	102.1	20.4	10.8	41.7	21.5	13.6	6.8	65.9	8.0	34.7	39.3
Aug-23	27.8	39.0	42.5	18.0	99.8	19.4	8.5	41.7	22.0	18.3	6.9	63.6	9.2	34.4	40.1
Sep-23	29.0	37.0	41.1	13.0	95.5	19.8	14.8	40.9	23.1	22.7	7.1	61.9	9.9	34.4	38.8
<b>Month-on-Month</b>															
Sep-22	-1.2	5.8	4.1	16.1	5.9	0.3	-17.7	3.4	2.2	2.2	0.1	2.0	0.0	2.2	3.8
Oct-22	4.7	5.6	2.9	20.3	1.8	1.0	10.9	2.9	2.8	-1.8	0.4	1.9	1.0	2.5	0.9
Nov-22	0.8	0.1	1.2	-5.0	1.1	2.2	0.6	2.8	1.9	-0.1	0.0	2.0	0.4	1.9	2.3
Dec-22	0.5	-0.1	2.4	-12.6	0.5	0.7	0.0	2.4	1.9	-0.8	0.1	10.9	0.3	1.3	3.0
Jan-23	2.9	5.0	6.2	-1.8	0.2	0.5	1.8	1.6	1.8	-0.5	0.0	4.5	0.1	3.1	3.2
Feb-23	4.3	4.1	4.0	4.1	9.7	1.2	3.7	5.0	2.1	12.0	2.1	3.3	0.5	5.1	4.7
Mar-23	3.7	3.7	3.9	2.5	60.9	5.3	1.1	5.1	0.3	3.3	2.9	3.1	1.3	3.8	2.5
Apr-23	2.4	4.4	4.7	2.5	0.3	1.9	-1.1	2.7	1.1	1.6	0.1	12.4	1.9	0.6	4.1
May-23	1.6	1.3	2.6	-7.7	0.6	1.4	0.7	3.9	0.9	0.2	0.4	5.0	1.0	4.2	4.5
Jun-23	-0.3	-1.0	-0.9	-1.6	0.1	1.1	-0.2	1.6	1.1	-2.1	0.1	0.7	0.4	1.4	1.0
Jul-23	3.5	4.1	3.9	5.6	0.4	0.6	8.0	1.7	2.2	-0.2	0.4	0.3	0.0	1.7	1.0
Aug-23	1.7	0.6	1.5	-5.8	0.4	1.2	1.1	2.3	2.0	7.9	0.3	3.5	3.4	1.8	3.9
Sep-23	2.0	1.6	0.9	7.5	0.5	2.1	0.5	1.7	4.5	9.1	0.4	0.4	0.6	2.4	0.6
<b>3-Year Average (in current month during FY22-FY24)</b>															
YoY	21.2	25.0	27.0	15.5	40.7	15.8	14.3	24.5	15.7	35.0	3.8	29.5	7.9	23.6	22.2
MoM	1.0	3.8	3.0	9.0	2.2	0.9	-5.2	1.9	2.4	4.2	0.2	1.2	0.2	1.9	1.9

Table A6: Urban CPI Inflation by Groups

Period	General	Food and Non-Alcoholic Beverages	Non-Perishable Food Items	Perishable Food Items	Alcoholic Beverages, Tobacco	Clothing and Footwear	Housing, Water, Elec., Gas and Other Fuels	Furnishing and Household Equipment	Health	Transport	Communication	Recreation and Culture	Education	Restaurants and Hotels	Misc. Goods and Services
<b>Year-on-Year</b>															
Sep-22	21.2	30.7	27.9	48.3	34.1	18.9	1.0	24.3	12.3	63.3	1.2	21.1	10.0	29.1	23.1
Oct-22	24.6	34.8	29.4	67.0	35.4	19.5	9.5	27.6	13.6	51.7	1.7	21.4	11.1	31.8	23.7
Nov-22	21.6	28.9	27.1	38.6	37.2	19.6	7.3	29.0	14.1	42.1	1.8	22.3	11.1	29.5	23.8
Dec-22	21.6	32.6	29.6	52.9	37.3	17.0	4.1	29.7	13.5	39.2	1.8	38.0	10.8	28.6	25.9
Jan-23	24.4	39.5	36.7	59.3	37.3	16.8	5.0	30.0	16.7	38.0	1.8	43.6	10.4	32.4	28.8
Feb-23	28.8	42.1	42.0	42.9	54.9	16.8	11.2	34.1	18.5	49.9	4.6	48.4	10.4	35.2	33.3
Mar-23	33.0	45.5	44.9	49.4	140.8	22.4	15.0	39.6	17.9	54.6	8.5	51.4	5.8	39.8	34.3
Apr-23	33.5	45.1	48.5	26.9	133.7	21.5	14.5	40.8	19.1	55.9	8.6	68.5	6.0	40.4	39.1
May-23	35.1	45.8	47.9	32.3	124.5	21.3	18.0	42.1	19.4	51.4	9.0	71.6	5.7	46.1	43.0
Jun-23	27.3	38.6	40.7	25.6	107.6	19.1	10.2	40.6	18.5	20.0	8.8	67.3	5.9	38.8	39.5
Jul-23	26.3	38.7	41.1	24.7	102.6	18.6	9.6	41.1	21.9	13.6	9.0	65.8	5.6	35.8	39.1
Aug-23	25.0	37.2	41.8	10.6	96.5	16.0	5.3	41.4	22.5	20.7	8.9	61.7	8.7	35.4	39.3
Sep-23	29.7	32.2	37.3	4.9	84.8	17.6	28.3	37.7	26.9	27.4	9.4	58.9	9.1	34.2	34.7
<b>12- Month Moving Average</b>															
Sep-22	15.6	18.5	18.4	18.8	10.5	12.7	11.3	14.8	10.4	38.1	2.6	11.5	6.9	17.4	13.5
Oct-22	16.9	20.7	19.8	25.9	13.3	13.5	11.1	16.4	10.8	41.2	2.4	12.7	7.7	19.4	14.7
Nov-22	17.7	22.1	20.8	30.2	16.2	14.3	10.6	18.0	11.2	42.5	2.3	13.9	8.4	20.9	15.9
Dec-22	18.4	23.9	22.0	35.8	19.2	14.7	9.6	19.5	11.5	43.5	2.1	16.5	9.1	22.2	17.2
Jan-23	19.4	26.0	23.9	39.8	22.1	15.1	8.9	21.0	12.1	44.6	2.0	19.5	9.7	23.8	18.8
Feb-23	20.8	28.3	26.4	40.5	26.5	15.7	9.1	22.9	12.8	46.6	2.1	23.0	10.3	25.5	20.8
Mar-23	22.6	30.9	29.1	42.1	38.2	16.8	9.8	25.2	13.5	48.9	2.5	26.6	10.0	27.7	22.7
Apr-23	24.4	33.3	32.0	41.9	49.2	17.7	10.5	27.5	14.2	51.0	3.1	31.6	9.7	29.9	24.9
May-23	26.3	35.8	34.7	42.6	59.2	18.5	11.6	29.8	15.0	52.3	3.7	36.6	9.3	32.5	27.5
Jun-23	26.9	36.9	36.2	41.8	67.1	18.9	11.5	31.7	15.6	48.1	4.2	41.2	8.9	33.9	29.6
Jul-23	27.0	37.8	37.3	40.8	74.2	19.2	10.7	33.6	16.5	43.2	4.8	45.6	8.5	34.8	31.5
Aug-23	26.9	38.4	38.4	38.4	80.1	18.9	9.1	35.3	17.4	39.5	5.5	49.0	8.4	35.4	33.0
Sep-23	27.6	38.4	39.1	34.1	84.1	18.8	11.3	36.4	18.7	36.8	6.2	52.1	8.3	35.7	34.0
<b>Period Average (Since July)</b>															
Sep-22	23.7	29.2	27.7	38.2	27.2	17.6	14.9	20.9	11.6	63.2	1.2	18.5	10.2	27.1	20.0
Oct-22	23.9	30.6	28.1	45.8	29.2	18.1	13.5	22.6	12.1	60.2	1.3	19.2	10.4	28.3	20.9
Nov-22	23.4	30.3	27.9	44.1	30.8	18.4	12.2	23.9	12.5	56.2	1.4	19.8	10.6	28.5	21.5
Dec-22	23.1	30.7	28.2	45.5	31.9	18.1	10.8	24.9	12.7	53.1	1.5	22.9	10.6	28.6	22.3
Jan-23	23.3	31.9	29.5	47.3	32.7	17.9	9.9	25.7	13.3	50.8	1.5	25.9	10.6	29.1	23.2
Feb-23	24.0	33.2	31.1	46.7	35.5	17.8	10.1	26.8	14.0	50.7	1.9	28.8	10.6	29.9	24.5
Mar-23	25.0	34.7	32.7	47.0	47.3	18.3	10.7	28.3	14.4	51.2	2.6	31.4	10.0	31.1	25.7
Apr-23	25.9	35.8	34.4	44.6	56.2	18.7	11.0	29.6	14.9	51.7	3.2	35.2	9.6	32.1	27.1
May-23	26.8	36.8	35.7	43.4	62.9	18.9	11.7	30.8	15.3	51.6	3.8	38.6	9.2	33.4	28.6
Jun-23	26.9	36.9	36.2	41.8	67.1	18.9	11.5	31.7	15.6	48.1	4.2	41.2	8.9	33.9	29.6
Jul-23	26.3	38.7	41.1	24.7	102.6	18.6	9.6	41.1	21.9	13.6	9.0	65.8	5.6	35.8	39.1
Aug-23	25.6	38.0	41.4	17.5	99.5	17.3	7.4	41.2	22.2	17.1	9.0	63.7	7.1	35.6	39.2
Sep-23	27.0	36.0	40.0	12.9	94.4	17.4	13.6	40.0	23.8	20.6	9.1	62.1	7.8	35.1	37.6
<b>Month-on-Month</b>															
Sep-22	-2.1	5.4	4.0	14.0	6.8	0.1	-17.8	4.1	1.0	2.0	0.1	2.0	0.0	2.8	3.9
Oct-22	4.5	4.8	2.2	18.5	1.3	1.0	10.9	3.3	1.7	-2.2	0.6	1.7	1.1	3.0	1.4
Nov-22	0.4	-0.3	0.7	-4.4	1.6	1.3	-0.1	2.6	1.6	-0.1	0.0	1.1	0.2	1.8	1.7
Dec-22	0.3	-0.3	2.2	-12.0	0.2	0.7	-0.5	2.3	1.1	-0.7	0.1	13.4	0.2	1.6	2.4
Jan-23	2.4	4.1	5.0	-1.4	0.1	0.6	1.4	1.1	3.4	-0.4	0.0	4.3	0.1	3.6	3.1
Feb-23	4.5	4.2	4.4	2.9	13.0	1.3	4.3	5.3	3.2	12.3	2.8	3.6	0.1	4.2	4.7
Mar-23	3.9	4.5	4.6	3.5	55.6	5.8	1.1	5.2	0.4	3.6	3.7	3.0	1.3	4.2	2.6
Apr-23	2.0	4.0	4.3	2.5	0.3	1.1	-1.1	2.5	1.9	1.4	0.2	11.5	0.8	0.6	4.2
May-23	1.5	1.4	2.7	-7.0	0.5	0.4	0.7	2.9	0.6	0.0	0.6	4.9	0.8	4.7	3.9
Jun-23	0.1	-0.2	-0.2	0.1	0.0	1.1	-0.1	1.6	0.7	-2.2	0.1	0.5	0.2	1.3	1.2
Jul-23	3.6	4.3	4.0	6.5	0.4	0.6	8.0	1.8	2.9	0.0	0.6	0.4	0.0	1.1	1.1
Aug-23	1.6	0.4	1.8	-8.9	0.3	1.2	1.1	2.4	2.1	6.1	0.0	3.6	3.6	2.0	3.5
Sep-23	1.7	1.6	0.7	8.1	0.4	1.5	0.2	1.4	4.7	7.8	0.5	0.2	0.4	1.8	0.4
<b>3-Years Average (in current month during FY22-FY24)</b>															
YoY	20.0	24.7	26.8	14.5	40.5	15.5	12.7	23.8	16.0	33.4	4.8	28.8	7.1	23.9	21.9
MoM	0.5	3.6	2.9	8.2	2.5	0.6	-5.3	2.1	2.1	3.8	0.2	1.2	0.1	2.0	1.9

Table A7: Rural CPI Inflation by Groups

Period	General	Food and Non-Alcoholic Beverages	Non-Perishable Food Items	Perishable Food Items	Alcoholic Beverages, Tobacco	Clothing and Footwear	Housing, Water, Elec., Gas and Other Fuels	Furnishing and Household Equipment	Health	Transport	Communication	Recreation and Culture	Education	Restaurants and Hotels	Misc. Goods and Services
<b>Year-on-Year</b>															
Sep-22	26.1	32.8	29.7	52.6	31.1	16.3	8.6	26.2	15.2	66.6	1.4	25.7	9.8	28.2	22.6
Oct-22	29.5	37.9	31.9	74.2	33.7	16.8	17.3	27.7	18.9	56.4	1.3	27.7	10.2	27.9	20.5
Nov-22	27.2	33.7	31.8	43.8	34.4	17.4	15.6	29.2	20.2	47.9	1.4	31.3	11.1	26.4	21.9
Dec-22	28.8	38.7	35.7	59.5	35.0	17.2	13.2	28.6	21.4	44.6	1.4	39.4	11.3	25.2	25.6
Jan-23	32.3	46.8	44.4	64.3	35.2	16.7	14.0	29.8	20.7	41.0	1.2	45.1	11.2	26.0	28.5
Feb-23	35.6	48.3	47.6	53.1	42.7	17.2	18.6	33.9	19.1	51.4	1.9	47.4	12.2	33.4	33.3
Mar-23	38.9	49.0	48.2	54.5	139.1	21.3	22.9	38.1	19.0	55.5	3.2	49.2	12.5	36.1	34.6
Apr-23	40.7	51.4	54.8	31.9	133.3	21.8	22.2	40.2	18.4	58.4	3.2	68.9	18.0	36.6	38.5
May-23	42.2	51.9	54.4	35.3	123.3	23.9	26.0	45.5	19.3	55.5	3.2	73.2	18.8	35.9	43.8
Jun-23	32.4	40.4	43.0	24.0	111.8	23.3	14.8	43.1	19.7	20.9	3.0	69.2	18.8	32.1	40.9
Jul-23	31.3	40.5	43.3	22.2	101.5	22.5	13.5	42.6	21.2	13.6	2.8	65.9	17.1	33.0	39.5
Aug-23	30.9	39.9	43.9	15.2	98.6	21.5	8.3	42.2	22.6	26.8	3.4	60.9	17.1	31.6	43.0
Sep-23	33.9	34.1	39.7	3.8	90.5	24.2	32.7	41.7	23.7	37.7	3.6	58.5	18.7	34.6	38.9
<b>12- Month Moving Average</b>															
Sep-22	17.4	18.8	18.6	20.3	10.5	11.8	16.6	17.3	10.4	38.1	1.1	13.2	5.7	17.4	14.1
Oct-22	19.2	21.5	20.4	29.0	13.2	12.5	16.9	18.9	11.3	41.8	1.1	14.9	6.2	19.1	15.2
Nov-22	20.6	23.7	22.1	34.6	15.9	13.1	16.7	20.4	12.4	43.9	1.1	16.9	6.9	20.4	16.2
Dec-22	22.0	26.3	24.0	41.3	18.7	13.7	16.2	21.6	13.5	45.6	1.2	19.7	7.6	21.6	17.5
Jan-23	23.7	29.2	26.7	45.8	21.5	14.3	15.9	22.9	14.5	46.9	1.2	22.9	8.2	22.7	19.0
Feb-23	25.5	32.0	29.7	47.1	24.8	14.9	16.4	24.5	15.3	49.0	1.3	26.1	8.8	24.4	20.9
Mar-23	27.6	34.7	32.6	48.8	36.4	15.8	17.4	26.4	16.1	51.4	1.4	29.4	9.4	26.2	22.8
Apr-23	29.8	37.5	35.9	48.1	47.3	16.7	18.4	28.5	16.7	53.7	1.6	34.3	10.5	28.0	24.8
May-23	32.0	40.3	39.1	47.9	57.1	17.8	19.7	30.9	17.4	55.5	1.8	39.5	11.6	29.5	27.3
Jun-23	32.6	41.2	40.5	46.1	65.5	18.6	19.4	32.8	18.0	51.1	2.0	44.0	12.6	30.2	29.3
Jul-23	32.9	42.0	41.6	44.8	72.3	19.3	18.2	34.5	18.8	45.8	2.1	48.0	13.5	30.9	31.2
Aug-23	33.1	42.7	42.7	42.6	78.5	19.8	16.1	36.0	19.7	42.5	2.3	51.1	14.1	31.2	33.1
Sep-23	33.6	42.5	43.3	37.6	83.3	20.4	18.0	37.2	20.4	40.5	2.5	53.7	14.8	31.7	34.4
<b>Period Average (Since July)</b>															
Sep-22	27.3	31.0	29.6	40.4	26.8	15.5	23.3	24.1	13.0	65.7	1.3	22.7	8.9	27.0	20.0
Oct-22	27.9	32.8	30.2	49.5	28.5	15.8	21.7	25.0	14.5	63.3	1.3	24.0	9.2	27.3	20.1
Nov-22	27.7	33.0	30.5	48.2	29.7	16.1	20.4	25.9	15.6	59.9	1.3	25.5	9.6	27.1	20.5
Dec-22	27.9	33.9	31.4	49.9	30.6	16.3	19.1	26.3	16.6	57.2	1.4	27.8	9.9	26.7	21.4
Jan-23	28.5	35.8	33.3	51.8	31.3	16.4	18.4	26.9	17.2	54.7	1.3	30.4	10.1	26.6	22.4
Feb-23	29.5	37.4	35.2	52.0	32.7	16.5	18.4	27.8	17.5	54.2	1.4	32.6	10.3	27.5	23.8
Mar-23	30.6	38.8	36.7	52.3	44.7	17.1	18.9	29.0	17.7	54.4	1.6	34.5	10.6	28.5	25.1
Apr-23	31.6	40.2	38.6	49.8	53.8	17.6	19.2	30.2	17.7	54.8	1.8	38.1	11.3	29.4	26.5
May-23	32.7	41.3	40.2	48.4	60.7	18.2	19.8	31.7	17.9	54.9	1.9	41.5	12.0	30.0	28.2
Jun-23	32.6	41.2	40.5	46.1	65.5	18.6	19.4	32.8	18.0	51.1	2.0	44.0	12.6	30.2	29.3
Jul-23	31.3	40.5	43.3	22.2	101.5	22.5	13.5	42.6	21.2	13.6	2.8	65.9	17.1	33.0	39.5
Aug-23	31.1	40.2	43.6	18.6	100.1	22.0	10.8	42.4	21.9	20.2	3.1	63.3	17.1	32.3	41.3
Sep-23	32.0	38.1	42.3	13.0	96.8	22.7	17.4	42.2	22.5	26.1	3.3	61.7	17.6	33.1	40.5
<b>Month-on-Month</b>															
Sep-22	0.2	6.2	4.2	18.4	4.8	0.5	-17.5	2.4	3.4	2.5	0.1	2.2	0.0	1.2	3.7
Oct-22	5.0	6.6	3.7	22.2	2.5	1.0	10.9	2.2	3.9	-1.3	0.0	2.4	0.5	1.7	0.2
Nov-22	1.3	0.4	1.7	-5.5	0.6	3.2	1.8	3.2	2.3	0.0	0.1	3.4	0.8	2.3	3.2
Dec-22	0.7	0.0	2.6	-13.2	0.9	0.8	1.1	2.6	2.8	-0.9	0.0	6.8	0.4	0.7	3.9
Jan-23	3.6	6.0	7.4	-2.2	0.4	0.4	2.6	2.3	0.4	-0.5	0.1	4.9	0.2	2.3	3.3
Feb-23	4.0	3.9	3.6	5.5	5.9	1.0	2.6	4.5	1.1	11.6	0.7	2.7	1.7	6.9	4.6
Mar-23	3.5	2.9	3.2	1.5	67.5	4.7	1.2	4.9	0.2	2.7	1.3	3.3	1.4	3.3	2.4
Apr-23	3.0	4.7	5.1	2.5	0.3	2.8	-1.3	3.1	0.4	2.0	0.1	14.1	5.9	0.7	3.9
May-23	1.7	1.1	2.6	-8.4	0.8	2.6	0.6	5.4	1.3	0.6	0.0	5.2	1.5	3.4	5.2
Jun-23	-0.8	-1.9	-1.7	-3.6	0.2	1.1	-0.6	1.6	1.5	-2.1	0.0	1.0	0.8	1.5	0.8
Jul-23	3.3	3.8	3.7	4.5	0.4	0.6	8.1	1.6	1.5	-0.6	0.1	0.2	0.0	2.8	0.9
Aug-23	1.9	0.8	1.1	-2.0	0.5	1.2	1.1	2.2	2.0	11.0	0.8	3.2	2.8	1.3	4.4
Sep-23	2.5	1.7	1.1	6.8	0.5	2.7	1.1	2.0	4.3	11.3	0.3	0.7	1.4	3.5	0.7
<b>3-Years Average (in current month during FY22-FY24)</b>															
YoY	22.9	25.4	27.2	16.5	41.0	16.2	17.6	25.6	15.4	37.5	2.0	30.7	10.8	23.1	22.7
MoM	1.7	4.0	3.1	9.8	2.0	1.2	-4.9	1.7	2.7	5.0	0.1	1.3	0.5	1.8	1.9

**Table A8: Top Ten Contributors to Urban CPI Inflation (YoY)**

Sr. No.	Items/Contributors	Weights	YoY Change		Weighted Contribution (%)
			Sep-22	Sep-23	
<b><u>A. Ranked by Weighted Contribution</u></b>					
1	Electricity Charges	4.56	-30.48	163.72	14.06
2	Wheat Flour	3.01	24.33	81.29	9.12
3	Readymade Food	5.52	31.00	35.29	7.01
4	Milk Fresh	7.11	28.58	28.08	6.90
5	Motor Fuel	2.91	86.96	30.52	5.27
6	Appliances/Articles/Products For Personal	2.98	22.11	37.12	3.68
7	Condiments And Spices	1.33	-14.10	78.77	3.61
8	Rice	1.18	39.82	64.71	2.90
9	Washing Soap/Detergents/Match Box	1.41	37.65	52.83	2.82
10	House Rent	19.26	5.62	5.25	2.76
<b>Total</b>		<b>49.27</b>			<b>58.13</b>
<b><u>B. Ranked by Percentage Change</u></b>					
1	Electricity Charges	4.56	-30.48	163.72	14.06
2	Text Books	0.67	17.19	101.78	1.95
3	Cigarettes	0.72	35.40	101.08	2.56
4	Sugar	1.11	-18.94	89.95	2.61
5	Wheat Flour	3.01	24.33	81.29	9.12
6	Condiments And Spices	1.33	-14.10	78.77	3.61
7	Tea	0.84	35.57	73.03	2.23
8	Gur	0.04	2.45	68.98	0.08
9	Rice	1.18	39.82	64.71	2.90
10	Gas Charges	1.08	0.00	62.82	2.72
<b>Total</b>		<b>14.54</b>			<b>41.84</b>
<b><u>C. Ranked by Weights</u></b>					
1	House Rent	19.26	5.62	5.25	2.76
2	Milk Fresh	7.11	28.58	28.08	6.90
3	Readymade Food	5.52	31.00	35.29	7.01
4	Education	4.88	10.04	9.08	1.34
5	Electricity Charges	4.56	-30.48	163.72	14.06
6	Wheat Flour	3.01	24.33	81.29	9.12
7	Appliances/Articles/Products For Personal	2.98	22.11	37.12	3.68
8	Motor Fuel	2.91	86.96	30.52	5.27
9	Cotton Cloth	2.22	23.68	25.66	1.96
10	Meat	2.04	24.89	18.84	1.59
<b>Total</b>		<b>54.49</b>			<b>53.69</b>

Note: Weighted contribution is estimated by multiplying the weights by the price change of an item; this is then reported as a share in YoY change in Urban CPI, which is 29.7 percent in September-2023.

**Table A9: Top Ten Contributors to Urban CPI Inflation (MoM)**

Sr. No.	Items/Contributors	Weights	MoM Change		Weighted Contribution (%)
			Aug-23	Sep-23	
<b>A. Ranked by Weighted Contribution</b>					
1	Motor Fuel	2.91	8.29	11.30	31.99
2	Fresh Vegetables	1.53	-17.18	11.77	9.08
3	Milk Fresh	7.11	1.57	2.03	8.76
4	Onions	0.59	-4.75	39.32	8.36
5	Sugar	1.11	9.03	10.28	7.18
6	Condiments And Spices	1.33	16.98	6.30	6.78
7	Cotton Cloth	2.22	0.43	3.89	5.04
8	Drugs And Medicines	1.07	3.15	8.08	4.97
9	Readymade Food	5.52	2.07	1.28	4.74
10	Transport Services	1.75	3.95	4.29	4.09
<b>Total</b>		<b>25.14</b>			<b>90.99</b>
<b>B. Ranked by Percentage Change</b>					
1	Onions	0.59	-4.75	39.32	8.36
2	Pulse Masoor	0.16	1.39	19.80	1.59
3	Fresh Vegetables	1.53	-17.18	11.77	9.08
4	Motor Fuel	2.91	8.29	11.30	31.99
5	Sugar	1.11	9.03	10.28	7.18
6	Pulse Mash	0.12	5.56	9.46	0.60
7	Liquefied Hydrocarbons	0.51	14.64	9.23	3.54
8	Drugs And Medicines	1.07	3.15	8.08	4.97
9	Beans	0.04	5.07	7.14	0.23
10	Condiments And Spices	1.33	16.98	6.30	6.78
<b>Total</b>		<b>9.37</b>			<b>74.32</b>
<b>C. Ranked by Weights</b>					
1	House Rent	19.26	0.00	0.00	0.00
2	Milk Fresh	7.11	1.57	2.03	8.76
3	Readymade Food	5.52	2.07	1.28	4.74
4	Education	4.88	3.63	0.37	0.83
5	Electricity Charges	4.56	1.37	-0.36	-1.13
6	Wheat Flour	3.01	-0.57	-0.40	-1.13
7	Appliances/Articles/Products For Personal	2.98	3.46	0.83	1.56
8	Motor Fuel	2.91	8.29	11.30	31.99
9	Cotton Cloth	2.22	0.43	3.89	5.04
10	Meat	2.04	1.42	0.78	1.08
<b>Total</b>		<b>54.49</b>			<b>51.74</b>

Note: Weighted contribution is estimated by multiplying the weights by the price change of an item; this is then reported as a share in YoY change in Urban CPI, which is 1.7 percent in September-2023.

**Table A10: Top and Bottom Fifteen Contributors to Urban CPI Inflation (YoY)**

Sr. No.	Items/Contributors	Weights	YoY Change		Weighted Contribution (%)
			Sep-22	Sep-23	
<b>Ranked by Weighted Contribution</b>					
<b>Top 15 Contributors</b>					
1	Electricity Charges	4.56	-30.48	163.72	14.06
2	Wheat Flour	3.01	24.33	81.29	9.12
3	Readymade Food	5.52	31.00	35.29	7.01
4	Milk Fresh	7.11	28.58	28.08	6.90
5	Motor Fuel	2.91	86.96	30.52	5.27
6	Appliances/Articles/Products For Personal	2.98	22.11	37.12	3.68
7	Condiments And Spices	1.33	-14.10	78.77	3.61
8	Rice	1.18	39.82	64.71	2.90
9	Washing Soap/Detergents/Match Box	1.41	37.65	52.83	2.82
10	House Rent	19.26	5.62	5.25	2.76
11	Gas Charges	1.08	0.00	62.82	2.72
12	Sugar	1.11	-18.94	89.95	2.61
13	Cigarettes	0.72	35.40	101.08	2.56
14	Tea	0.84	35.57	73.03	2.23
15	Cotton Cloth	2.22	23.68	25.66	1.96
<b>Total</b>		<b>55.24</b>			<b>70.21</b>
<b>Bottom 15 Contributors</b>					
1	Fresh Vegetables	1.53	67.16	-16.82	-1.25
2	Tomatoes	0.35	127.81	-20.69	-0.45
3	Onions	0.59	38.27	-0.70	-0.01
4	Pulse Gram	0.17	64.20	-1.48	-0.01
5	Communication Services	1.88	0.52	0.00	0.00
6	Motor Vehicle Tax	0.05	8.92	0.00	0.00
7	Mustard Oil	0.01	71.85	0.29	0.00
8	Therapeutic Appliances And Equipment	0.01	6.14	13.88	0.00
9	Dental Services	0.02	12.46	13.37	0.01
10	Postal Services	0.02	13.51	9.14	0.01
11	Major Tools & Equipment	0.01	23.60	24.40	0.01
12	Carpets	0.03	13.35	12.97	0.01
13	Honey	0.10	20.98	4.40	0.01
14	Electrical Appliances For Personal	0.05	17.37	11.64	0.01
15	Besan	0.08	58.47	5.40	0.02
<b>Total</b>		<b>4.90</b>			<b>-1.64</b>

**Table A11: Top and Bottom Fifteen Contributors to Urban CPI Inflation (MoM)**

Sr. No.	Items/Contributors	Weights	MoM Change		Weighted Contribution (%)
			Aug-23	Sep-23	
<b>Ranked by Weighted Contribution</b>					
<b>Top 15 Contributors</b>					
1	Motor Fuel	2.91	8.29	11.30	31.99
2	Fresh Vegetables	1.53	-17.18	11.77	9.08
3	Milk Fresh	7.11	1.57	2.03	8.76
4	Onions	0.59	-4.75	39.32	8.36
5	Sugar	1.11	9.03	10.28	7.18
6	Condiments And Spices	1.33	16.98	6.30	6.78
7	Cotton Cloth	2.22	0.43	3.89	5.04
8	Drugs And Medicines	1.07	3.15	8.08	4.97
9	Readymade Food	5.52	2.07	1.28	4.74
10	Transport Services	1.75	3.95	4.29	4.09
11	Marriage Hall Charges	1.75	2.01	3.93	3.83
12	Liquefied Hydrocarbons	0.51	14.64	9.23	3.54
13	Fresh Fruits	1.44	-24.70	4.46	2.81
14	Washing Soap/Detergents/Match Box	1.41	3.95	1.53	1.72
15	Pulse Masoor	0.16	1.39	19.80	1.59
<b>Total</b>		<b>30.41</b>			<b>104.48</b>
<b>Bottom 15 Contributors</b>					
1	Chicken	1.36	-6.26	-11.82	-12.08
2	Tomatoes	0.35	75.35	-13.80	-3.83
3	Cooking Oil	1.10	-4.29	-1.52	-1.49
4	Wheat Flour	3.01	-0.57	-0.40	-1.13
5	Electricity Charges	4.56	1.37	-0.36	-1.13
6	Vegetable Ghee	1.03	-2.67	-0.79	-0.70
7	Personal Effects N.E.C.	0.94	4.05	-0.77	-0.63
8	Wheat	0.61	-0.23	-0.95	-0.55
9	Tea	0.84	0.00	-0.73	-0.54
10	Potatoes	0.45	4.38	-1.07	-0.47
11	Text Books	0.67	6.61	-0.03	-0.02
12	Communication Services	1.88	0.00	0.00	0.00
13	Motor Vehicle Tax	0.05	0.00	0.00	0.00
14	Gas Charges	1.08	0.00	0.00	0.00
15	Newspapers	0.07	0.00	0.00	0.00
<b>Total</b>		<b>18.00</b>			<b>-22.57</b>

**Table A12: Top and Bottom Fifteen Contributors to MoM Urban CPI Food Inflation**

Sr. No.	Items/Contributors	Weights	MoM Change		Weighted Contribution (%)
			Aug-23	Sep-23	
<b>Ranked by Weighted Contribution</b>					
<b>Top 15 Contributors</b>					
1	Fresh vegetables	1.53	-17.18	11.77	9.08
2	Milk fresh	7.11	1.57	2.03	8.76
3	Onions	0.59	-4.75	39.32	8.36
4	Sugar	1.11	9.03	10.28	7.18
5	Condiments and Spices	1.33	16.98	6.30	6.78
6	Readymade food	5.52	2.07	1.28	4.74
7	Fresh fruits	1.44	-24.70	4.46	2.81
8	Pulse masoor	0.16	1.39	19.80	1.59
9	Rice	1.18	2.68	1.37	1.39
10	Meat	2.04	1.42	0.78	1.08
11	Milk products	0.64	1.35	2.17	0.86
12	Beverages	0.89	6.18	1.61	0.84
13	Bakery and confectionary	0.48	1.70	2.41	0.76
14	Sweetmeat	0.35	5.34	2.85	0.72
15	Eggs	0.51	16.26	1.42	0.63
<b>Total</b>		<b>24.89</b>			<b>55.57</b>
<b>Bottom 15 Contributors</b>					
1	Chicken	1.36	-6.26	-11.82	-12.08
2	Tomatoes	0.35	75.35	-13.80	-3.83
3	Cooking oil	1.10	-4.29	-1.52	-1.49
4	Wheat flour	3.01	-0.57	-0.40	-1.13
5	Vegetable ghee	1.03	-2.67	-0.79	-0.70
6	Wheat	0.61	-0.23	-0.95	-0.55
7	Tea	0.84	0.00	-0.73	-0.54
8	Potatoes	0.45	4.38	-1.07	-0.47
9	Honey	0.10	0.03	0.00	0.00
10	Dessert preparation	0.04	0.18	0.03	0.00
11	Butter	0.09	1.83	0.05	0.00
12	Mustard oil	0.01	-2.70	1.03	0.01
13	Fish	0.39	1.45	0.14	0.02
14	Ice cream	0.10	0.14	0.61	0.03
15	Wheat products	0.09	5.05	0.43	0.03
<b>Total</b>		<b>9.59</b>			<b>-20.70</b>

**Table A13: Top and Bottom Fifteen Contributors to MoM Urban CPI Non-Food Inflation**

Sr. No.	Items/Contributors	Weights	MoM Change		Weighted Contribution (%)
			Aug-23	Sep-23	
<b>Ranked by Weighted Contribution</b>					
<b>Top 15 Contributors</b>					
1	Motor fuel	2.91	8.29	11.30	31.99
2	Cotton cloth	2.22	0.43	3.89	5.04
3	Drugs and medicines	1.07	3.15	8.08	4.97
4	Transport services	1.75	3.95	4.29	4.09
5	Marriage Hall Charges	1.75	2.01	3.93	3.83
6	Liquefied Hydrocarbons	0.51	14.64	9.23	3.54
7	Washing soap/detergents/match Box	1.41	3.95	1.53	1.72
8	Appliances/Articles/Products for Personal	2.98	3.46	0.83	1.56
9	Household servant	0.77	0.41	2.39	0.86
10	Education	4.88	3.63	0.37	0.83
11	Household equipment	1.00	1.24	0.98	0.62
12	Tailoring	1.07	0.25	1.05	0.60
13	Hospitals services	0.57	0.82	2.08	0.53
14	Personal Grooming Services	0.80	2.81	1.01	0.46
15	Readymade garments	1.32	3.86	0.68	0.44
<b>Total</b>		<b>25.02</b>			<b>61.09</b>
<b>Bottom 15 Contributors</b>					
1	Electricity charges	4.56	1.37	-0.36	-1.13
2	Personal Effects n.e.c.	0.94	4.05	-0.77	-0.63
3	Text books	0.67	6.61	-0.03	-0.02
4	Newspapers	0.07	0.00	0.00	0.00
5	Communication Services	1.88	0.00	0.00	0.00
6	Motor vehicle tax	0.05	0.00	0.00	0.00
7	Gas charges	1.08	0.00	0.00	0.00
8	House rent	19.26	0.00	0.00	0.00
9	Woolen readymade garments	0.43	0.11	0.00	0.00
10	Electrical Appliances for Personal	0.05	1.44	0.11	0.00
11	Therapeutic Appliances and Equipment	0.01	5.00	1.23	0.00
12	Postal services	0.02	0.21	0.63	0.01
13	Carpets	0.03	0.12	0.55	0.01
14	Accommodation Services	0.13	0.05	0.12	0.01
15	Major tools & equipment	0.01	0.49	1.47	0.01
<b>Total</b>		<b>29.18</b>			<b>-1.75</b>

**Table A14: Top Ten Contributors to Rural CPI Inflation (YoY)**

Sr. No.	Items/Contributors	Weights	YoY Change		Weighted Contribution (%)
			Sep-22	Sep-23	
<b>A. Ranked by Weighted Contribution</b>					
1	Wheat Flour	3.43	19.35	87.56	9.13
2	Electricity Charges	3.44	-30.48	163.72	8.86
3	Milk Fresh	10.38	27.09	29.49	8.37
4	Wheat	3.47	43.27	52.65	6.65
5	Rice	1.55	37.88	69.27	4.31
6	Sugar	2.03	-19.07	93.46	4.13
7	Motor Fuels	2.49	90.49	33.44	4.12
8	Readymade Food	3.80	31.99	33.36	4.11
9	Solid Fuel	4.48	25.00	27.79	3.42
10	Transport Services	1.80	61.25	55.68	3.17
<b>Total</b>		<b>36.87</b>			<b>56.27</b>
<b>B. Ranked by Percentage Change</b>					
1	Electricity Charges	3.44	-30.48	163.72	8.86
2	Text Books	0.50	21.84	115.89	1.37
3	Cigarettes	1.24	30.75	93.50	3.14
4	Sugar	2.03	-19.07	93.46	4.13
5	Wheat Flour	3.43	19.35	87.56	9.13
6	Tea	1.26	30.07	83.65	2.95
7	Gur	0.15	-1.52	70.57	0.26
8	Rice	1.55	37.88	69.27	4.31
9	Wheat Products	0.11	31.99	57.70	0.19
10	Transport Services	1.80	61.25	55.68	3.17
<b>Total</b>		<b>15.51</b>			<b>37.51</b>
<b>C. Ranked by Weights</b>					
1	Milk Fresh	10.38	27.09	29.49	8.37
2	House Rent	8.61	5.90	7.45	1.47
3	Solid Fuel	4.48	25.00	27.79	3.42
4	Readymade Food	3.80	31.99	33.36	4.11
5	Wheat	3.47	43.27	52.65	6.65
6	Electricity Charges	3.44	-30.48	163.72	8.86
7	Wheat Flour	3.43	19.35	87.56	9.13
8	Cotton Cloth	2.84	15.49	24.30	2.09
9	Motor Fuels	2.49	90.49	33.44	4.12
10	Vegetable Ghee	2.38	60.74	-1.06	-0.14
<b>Total</b>		<b>45.32</b>			<b>48.08</b>

Note: Weighted contribution is estimated by multiplying the weights by the price change of an item; this is then reported as a share in YoY change in Urban CPI, which is 33.9 percent in September-2023.

**Table A15: Top Ten Contributors to Rural CPI Inflation (MoM)**

Sr. No.	Items/Contributors	Weights	MoM Change		Weighted Contribution (%)
			Aug-23	Sep-23	
<b><u>A. Ranked by Weighted Contribution</u></b>					
1	Motor Fuels	2.49	8.73	12.02	18.58
2	Transport Services	1.80	22.00	15.72	12.69
3	Sugar	2.03	8.87	12.49	10.00
4	Fresh Vegetables	2.09	-4.87	12.66	8.61
5	Onions	0.90	2.18	45.16	8.28
6	Liquefied Hydrocarbons	1.00	8.13	12.40	5.41
7	Readymade Food	3.80	1.18	2.96	4.98
8	Cotton Cloth	2.84	0.80	3.78	4.11
9	Marriage Hall Charges	2.25	1.66	4.84	3.66
10	Drugs And Medicines	1.58	3.49	5.19	3.20
<b>Total</b>		<b>20.78</b>			<b>79.52</b>
<b><u>B. Ranked by Percentage Change</u></b>					
1	Onions	0.90	2.18	45.16	8.28
2	Transport Services	1.80	22.00	15.72	12.69
3	Pulse Masoor	0.21	1.11	14.05	0.97
4	Fresh Vegetables	2.09	-4.87	12.66	8.61
5	Sugar	2.03	8.87	12.49	10.00
6	Liquefied Hydrocarbons	1.00	8.13	12.40	5.41
7	Motor Fuels	2.49	8.73	12.02	18.58
8	Pulse Mash	0.15	5.50	8.02	0.41
9	Gur	0.15	12.18	6.70	0.41
10	Garbage Collection	0.01	4.78	6.65	0.02
<b>Total</b>		<b>10.83</b>			<b>65.38</b>
<b><u>C. Ranked by Weights</u></b>					
1	Milk Fresh	10.38	1.39	0.31	1.22
2	House Rent	8.61	0.00	0.00	0.00
3	Solid Fuel	4.48	0.41	0.72	1.19
4	Readymade Food	3.80	1.18	2.96	4.98
5	Wheat	3.47	0.72	-0.29	-0.59
6	Electricity Charges	3.44	1.37	-0.36	-0.54
7	Wheat Flour	3.43	0.68	0.79	1.62
8	Cotton Cloth	2.84	0.80	3.78	4.11
9	Motor Fuels	2.49	8.73	12.02	18.58
10	Vegetable Ghee	2.38	-2.44	-0.59	-0.82
<b>Total</b>		<b>45.32</b>			<b>29.75</b>

Note: Weighted contribution is estimated by multiplying the weights by the price change of an item; this is then reported as a share in YoY change in Urban CPI, which is 2.5 percent in September-2023.

**Table A16: Top and Bottom Fifteen Contributors to Rural CPI Inflation (YoY)**

Sr. No.	Items/Contributors	Weights	YoY Change		Weighted Contribution (%)
			Sep-22	Sep-23	
<b>Ranked by Weighted Contribution</b>					
<b>Top 15 Contributors</b>					
1	Wheat Flour	3.43	19.35	87.56	9.13
2	Electricity Charges	3.44	-30.48	163.72	8.86
3	Milk Fresh	10.38	27.09	29.49	8.37
4	Wheat	3.47	43.27	52.65	6.65
5	Rice	1.55	37.88	69.27	4.31
6	Sugar	2.03	-19.07	93.46	4.13
7	Motor Fuels	2.49	90.49	33.44	4.12
8	Readymade Food	3.80	31.99	33.36	4.11
9	Solid Fuel	4.48	25.00	27.79	3.42
10	Transport Services	1.80	61.25	55.68	3.17
11	Cigarettes	1.24	30.75	93.50	3.14
12	Tea	1.26	30.07	83.65	2.95
13	Washing Soaps, Detergents And Match Box	1.70	32.56	54.21	2.68
14	Appliances/Articles/Products For Personal Care	2.27	13.36	46.40	2.52
15	Condiments And Spices	1.49	12.54	51.94	2.31
<b>Total</b>		<b>44.83</b>			<b>69.87</b>
<b>Bottom 15 Contributors</b>					
1	Fresh Vegetables	2.09	68.64	-11.33	-0.93
2	Tomatoes	0.51	144.49	-32.01	-0.89
3	Onions	0.90	42.14	-7.92	-0.22
4	Vegetable Ghee	2.38	60.74	-1.06	-0.14
5	Cooking Oil	0.60	62.13	-0.68	-0.02
6	Pulse Masoor	0.21	78.92	-1.97	-0.01
7	Communication Services	1.65	0.16	0.00	0.00
8	Motor Vehicle Tax	0.02	24.88	0.00	0.00
9	Garbage Collection	0.01	9.60	11.74	0.00
10	Postal Services	0.01	0.00	20.00	0.00
11	Mustard Oil	0.01	66.88	5.18	0.00
12	Honey	0.03	19.82	5.95	0.00
13	Dental Services	0.02	20.39	15.21	0.01
14	Accommodation Services	0.14	7.08	3.05	0.01
15	Cleaning And Laundering	0.02	31.92	28.70	0.01
<b>Total</b>		<b>8.60</b>			<b>-2.18</b>

**Table A17: Top and Bottom Fifteen Contributors to Rural CPI Inflation (MoM)**

Sr. No.	Items/Contributors	Weights	MoM Change		Weighted Contribution (%)
			Aug-23	Sep-23	
<b>Ranked by Weighted Contribution</b>					
<b>Top 15 Contributors</b>					
1	Motor Fuels	2.49	8.73	12.02	18.58
2	Transport Services	1.80	22.00	15.72	12.69
3	Sugar	2.03	8.87	12.49	10.00
4	Fresh Vegetables	2.09	-4.87	12.66	8.61
5	Onions	0.90	2.18	45.16	8.28
6	Liquefied Hydrocarbons	1.00	8.13	12.40	5.41
7	Readymade Food	3.80	1.18	2.96	4.98
8	Cotton Cloth	2.84	0.80	3.78	4.11
9	Marriage Hall Charges	2.25	1.66	4.84	3.66
10	Drugs And Medicines	1.58	3.49	5.19	3.20
11	Condiments And Spices	1.49	1.25	4.45	3.03
12	Rice	1.55	2.70	2.74	2.96
13	Appliances/Articles/Products For Personal Care	2.27	5.89	2.15	1.77
14	Meat	1.71	1.05	2.24	1.64
15	Wheat Flour	3.43	0.68	0.79	1.62
<b>Total</b>		<b>31.23</b>			<b>90.54</b>
<b>Bottom 15 Contributors</b>					
1	Chicken	1.46	-6.29	-9.43	-6.80
2	Tomatoes	0.51	82.57	-16.09	-3.80
3	Vegetable Ghee	2.38	-2.44	-0.59	-0.82
4	Potatoes	0.74	4.56	-1.22	-0.60
5	Wheat	3.47	0.72	-0.29	-0.59
6	Personal Effects N.E.C.	1.21	4.93	-0.82	-0.56
7	Cooking Oil	0.60	-1.64	-1.58	-0.55
8	Electricity Charges	3.44	1.37	-0.36	-0.54
9	Tea	1.26	0.00	-0.51	-0.35
10	Dessert Preparation	0.01	0.00	-1.26	-0.01
11	Text Books	0.50	5.16	-0.02	0.00
12	Communication Services	1.65	0.00	0.00	0.00
13	Motor Vehicle Tax	0.02	0.00	0.00	0.00
14	Woolen Readymade Garments	0.54	0.00	0.00	0.00
15	Newspapers	0.02	0.00	0.00	0.00
<b>Total</b>		<b>17.81</b>			<b>-14.62</b>

**Table A18: Top and Bottom Fifteen Contributors to Rural CPI Food Inflation (MoM)**

Sr. No.	Items/Contributors	Weights	MoM Change		Weighted Contribution (%)
			Aug-23	Sep-23	
<b>Ranked by Weighted Contribution</b>					
<b>Top 15 Contributors</b>					
1	Sugar	2.03	8.87	12.49	10.00
2	Fresh Vegetables	2.09	-4.87	12.66	8.61
3	Onions	0.90	2.18	45.16	8.28
4	Readymade Food	3.80	1.18	2.96	4.98
5	Condiments and Spices	1.49	1.25	4.45	3.03
6	Rice	1.55	2.70	2.74	2.96
7	Meat	1.71	1.05	2.24	1.64
8	Wheat Flour	3.43	0.68	0.79	1.62
9	Beverages	0.55	5.05	6.33	1.22
10	Milk fresh	10.38	1.39	0.31	1.22
11	Pulse Masoor	0.21	1.11	14.05	0.97
12	Bakery and Confectionary	0.37	3.41	4.41	0.75
13	Eggs	0.57	18.24	2.44	0.72
14	Butter	0.33	0.44	5.23	0.64
15	Sweetmeat	0.40	1.94	3.70	0.60
<b>Total</b>		<b>29.82</b>			<b>47.23</b>
<b>Bottom 15 Contributors</b>					
1	Chicken	1.46	-6.29	-9.43	-6.80
2	Tomatoes	0.51	82.57	-16.09	-3.80
3	Vegetable ghee	2.38	-2.44	-0.59	-0.82
4	Potatoes	0.74	4.56	-1.22	-0.60
5	Wheat	3.47	0.72	-0.29	-0.59
6	Cooking oil	0.60	-1.64	-1.58	-0.55
7	Tea	1.26	0.00	-0.51	-0.35
8	Dessert Preparation	0.01	0.00	-1.26	-0.01
9	Honey	0.03	0.00	0.00	0.00
10	Mustard oil	0.01	-1.20	0.44	0.00
11	Besan	0.07	-0.10	0.51	0.01
12	Ice Cream	0.06	0.00	1.32	0.02
13	Milk powder	0.11	8.54	2.17	0.08
14	Gram Whole	0.11	2.24	1.65	0.08
15	Fish	0.26	0.30	1.43	0.11
<b>Total</b>		<b>11.09</b>			<b>-13.21</b>

**Table A19: Top and Bottom Fifteen Contributors to MoM Rural CPI Non-Food Inflation**

Sr. No.	Items/Contributors	Weights	MoM Change		Weighted Contribution (%)
			Aug-23	Sep-23	
<b>Ranked by Weighted Contribution</b>					
<b>Top 15 Contributors</b>					
1	Motor Fuels	2.49	8.73	12.02	18.58
2	Transport Services	1.80	22.00	15.72	12.69
3	Liquefied Hydrocarbons	1.00	8.13	12.40	5.41
4	Cotton Cloth	2.84	0.80	3.78	4.11
5	Marriage Hall Charges	2.25	1.66	4.84	3.66
6	Drugs and Medicines	1.58	3.49	5.19	3.20
7	Appliances/Articles/Products for Personal Care	2.27	5.89	2.15	1.77
8	Woolen Cloth	1.10	0.11	3.80	1.42
9	Solid Fuel	4.48	0.41	0.72	1.19
10	Readymade Garments	1.13	2.67	3.02	1.17
11	Household Equipments	1.28	2.12	2.07	1.10
12	Tailoring	1.30	0.39	2.44	1.09
13	Washing Soaps, Detergents and Match Box	1.70	2.54	1.34	1.06
14	Furniture and Furnishing	0.58	1.64	4.91	1.03
15	Hospitals Services	1.01	0.00	3.75	0.94
<b>Total</b>		<b>26.80</b>			<b>58.42</b>
<b>Bottom 15 Contributors</b>					
1	Personal Effects n.e.c.	1.21	4.93	-0.82	-0.56
2	Electricity Charges	3.44	1.37	-0.36	-0.54
3	Text Books	0.50	5.16	-0.02	0.00
4	Newspapers	0.02	0.00	0.00	0.00
5	Communication Services	1.65	0.00	0.00	0.00
6	Motor Vehicle Tax	0.02	0.00	0.00	0.00
7	Woolen Readymade Garments	0.54	0.00	0.00	0.00
8	Dental Services	0.02	0.00	0.00	0.00
9	House Rent	8.61	0.00	0.00	0.00
10	Postal Services	0.01	20.00	0.00	0.00
11	Cleaning and Laundering	0.02	1.47	0.56	0.00
12	Major Tools and Equipments	0.03	0.85	0.96	0.01
13	Garbage Collection	0.01	4.78	6.65	0.02
14	Motor Vehicles	0.73	1.24	0.09	0.02
15	Recreation and Culture	0.48	0.72	0.38	0.06
<b>Total</b>		<b>17.29</b>			<b>-0.98</b>

Table A20: Distribution of Price Changes (YoY) - Selected Urban CPI Item

Groups	Decrease or no change	Subdued increase (Greater than 0% but less than 5%)	Moderate increase (5% but less than 10%)	Double digit increase (10% or more)
Food & Non-Alcoholic Beverages	Chilies (Green), Onions, Lemon, Cardamom Small (Average Quality), Kinnu (Average Quality), Peach (Average Quality), Mango Kalmi (Average Quality)	Vegetable Ghee Dalda/Habib 2.5 Kg Tin, Mustard Oil (Average Quality), Pulse Masoor (Washed), Vegetable Ghee Dalda/Habib Or Other Superior Quality 1 Kg		Cardamom Large (Loose) (Average Quality), Garlic (Lehsun), Beef With Bone (Average Quality), Almonds (Badam) Kaghazi With Shell (Average Quality), Mutton (Average Quality)
Alcoholic Beverages & Tobacco				Pan Prepared (Sweet With Beetle Nuts), Cigarettes Capstan 20'S Packet, Cigarettes Gold Leaf 20'S Packet
Clothing & Footwear	Cheetah 50 Size 3-5 Servis, Gents Shoes Servis, Children Shoes Power Lite Bata, Ladies Sandal Bata, Ladies Sponge Chappal Bata, Gents Shoes Paul Bata,		Pant Cloth Wash & Wear (Average Quality), Women Shalwar Kameez (Average Quality),	Dopatta Georgette (Average Quality), Tailoring Charges Pant (Men), Vest "Baniyan" For Men Average Quality, Awami Suit Gents Wash & Wear (Average Quality), Gents Sponge Chappal Bata, Pullover Gents (Average Quality), Underwear Medium Size (Average Quality), Shirt Boy Length 24"/26", Pullover
Housing, Water, Elec, Gas & other Fuels			House Rent Combined, Lpg 11.67 Kg Cylinder,	Bajri, Mason Wage Rate, Bricks New 1st Class, Painter Wage Rate, Plumber Wage Rate, Iron Bars (M.S. Bar) 1/2 " 40 Grade, Unskilled Labor Wage Rate, Electrician Charges, Sand (Black Pit), Cement Blocks (6"X8"X12"), Gas Charges 6.7438 -
Furnishing & Household Equip. Maintenance etc				Bed Sheet Single (Superior Quality), Air Cooler Super Asia Ecm-4000/Jc-1000, Plain Carpet, Household Servant Female Part Time, Sofa Set Five Seater, Dinner Set Plastic 72 Pieces Super Quality, Chair Sheesham Wood With Arm, Towel
Health		Ventolin Tablets 2 Mg,	Physiotherapist Fee Per Visit, Sugar Test (Random/Fasting) Charges Of Both, Gynecologist Fee Per Visit,	Calpol Syrup 100 Ml Bottle, Septran Tablets, Daonil Tablets 5 Mg, Hydryllin Syrup 120 Ml Bottle, Flagyl Tablets 400 Mg, Dental Extraction Fee, Dental Surgeon Fee Per Visit, Urine Test (Dr) Charges, Johar Joshanda Instant (Sachet)
Transport	Car Suzuki 800 Cc Without Ac, Car Tax 800 Cc To 1500 Cc,	Cng, Air Fare Economy Class Per Kilometer (National Average), Car Toyota 1300 Cc Xli,	Mini Bus Fare Minimum Within City,	Mini Bus Fare Maximum Within City, Auto Rickshaw Fare, Suzuki Fare Minimum Within City, Bus Fare Outside City (Ac), Train Fare Ac Sleeper Per Person, Suzuki Fare Maximum Within City, Car Service
Communication	Mobile Call Charges, Telephone Call Charges, Internet Charges (Ds) 1 Mb (Unlimited),		Courier Charges Minimum Within Zone Outside City (Tcs),	Mobile Set With Rear Camera And Without Touch Screen,
Recreation & Culture	Mag The Weekly (Magazine), Akhbar-E-Jehan Weekly, Newspaper Daily Dawn,		Recreational Park Charges (Minimum Playland Ticket),	Cable Charges, Personal Computer With Led Monitor (17") Dell/Hp/Acer Core I5, Laptop Dell/Hp/Acer Core I5, Display (14'-15'), English Book Ba/B.Sc, Lead Pencil Goldfish, Photostat Paper 70 Gm, Led Sony/Samsung 32"
Education		Government University Fee M.S.C / M.A., Government Medical College/University Tuition Fee For Mbbs (1St Year), Private College Fee First Year,	Coaching Fee For Class Xi/Xii Science Group, Coaching Fee For Class Xi/Xii Commerce Group, Government College Fee First Year, Private	Coaching Fee For Class Ix/X Science Group, Private School Fee English Medium Average Standard (Class I), Private School Fee English Medium Average Standard (Class
Restaurant & Hotels				Pizza Chicken Medium Size (Average Quality), Private Hostel Accommodation Fee For Intermediate College Per Student, Marriage Hall Service Charges With Food (Average Meal), Government
Miscellaneous				Purse Ladies Medium Size (Average Quality), Electric Hair Straightener (Philips), Perfume Medium Size Broche/Medora, Tooth Brush (Shield), Wall Clock Quartz (Average Quality), Hair Style Charges (At Average Beauty Parlor),

Table A21: Distribution of Price Changes (YoY) - Selected Rural CPI Items

Groups	Decrease or no change	Subdued increase (Greater than 0% but less than 5%)	Moderate increase (5% but less than 10%)	Double digit increase (10% or more)
Food & Non-Alcoholic Beverages	Lemon, Onions, Chilies (Green), Pulse Masoor (Washed), Vegetable Ghee Dalda/Habib Or Other Superior Quality 1 Kg Pouch, Cooking Oil (Pouch), Tomatoes, Cucumber (Kheera), Turnip		Mustard Oil (Average Quality), Honey Marhaba Bottle 500 Gm,	Apple (Average Quality), Beef With Bone (Average Quality), Mutton (Average Quality), Fish Fresh, Jam-E-Shireen Standard Size (800 MI), Chips (Loose), Gram Whole Yellow (Average Quality), Desi Ghee, Arvi,
Alcoholic Beverages & Tobacco				Pan Prepared (Sweet With Beetle Nuts), Chewing Tobacco (Niswar), Tobacco Hukka Twisted, Cigarettes Canstan 20'S Packet, Cigarettes Gold
Clothing & Footwear				Chaddar (Wash-N-Wear) (2X2.5 Meter), Pullover Ladies (Average Quality), Footware Gents Local (Average Quality), Shirting (Average Quality), Full Pant Boy Length 24"/26", Pullover Gents (Average Quality), Tailoring Charges Simple Suit (Female), Shirt Boy Length
Housing, Water, Elec, Gas & other Fuels			House Rent Combined,	Carpenter Wage Rate, Mason Wage Rate, Unskilled Labor Wage Rate, Bajri, Painter Wage Rate, Plumber Wage Rate, Kerosene Oil, Bricks New 1St Class, Coal, Electricity
Furnishing & Household Equip. Maintenance etc				Dinner Set Plastic 72 Pieces Super Quality, Blanket Single (Sn), Lota Plastic Medium Size (Average Quality), Cot Iron (Charpai), Readymade Quilt (3 Kg), Bucket
Health			Cost Of Surgery (C-Section),	Daonil Tablets 5 Mg, Inderal Tablets 10 Mg, Hydryllin Syrup 120 MI Bottle, X-Ray (Chest) Charges, Johar Joshanda Instant (Sachet) Packet,
Transport	Car Suzuki 800 Cc Without Ac, Car Tax 800 Cc To 1500 Cc,	Air Fare Economy Class Per Kilometer,	Cng,	Motorcycle Service Charges, Chingchi Rickshaw Charges, Minimum, Bicycle, Tire Cycle, Tire Car Mehran Tubeless (General), Train Fare Economy Per Person,
Communication	Mobile Call Charges, Telephone Call Charges, Internet Charges (Dsl) 1 Mb (Unlimited),			Mobile Set With Rear Camera And Without Touch Screen, Postal Registration Charges,
Recreation & Culture				Cable Charges, Led Sony/Samsung 32" Colored, Personal Computer With Led Monitor (17") Dell/Hp/Acer Core I5, Pets Feed, Exercise Book (With Lines) 80 To 100 Pages, Lead Pencil Goldfish
Education		Vocational Training Basic Computer Short Course Fee (3 Months) ,		Coaching Fee For Class Ix/X Science Group, Private School Fee English Medium Average Standard (Class Vi), Private School Fee English Medium Average Standard (Class V), Private School Fee English Medium
Restaurant & Hotels	Government Hostel Accommodation Fee For Intermediate College Per Student,			Private Hostel Accommodation Fee For Intermediate College Per Student, Pizza Chicken Medium Size (Average Quality), Tea Prepared Ordinary, Cooked Beef At Average
Miscellaneous				Tooth Brush (Shield), Hair Color (Kala Kola), Trunk Medium Size (Average Quality), Talcum Powder Viceroy/Black Cat, Hair Removing Cream (Eu-Cream) 30MI Tube, Shaving Cream (Touchme Large/Admiral), Tooth Paste Colgate

Table A22: Distribution of Price Changes (YoY) - WPI Items

Groups	Decrease or no change	Subdued increase (Greater than 0% but less than 5%)	Moderate increase (5% but less than 10%)	Double digit increase (10% or more)
Agriculture Forestry & Fisher Product	Fiber Crops,	Vegetables,	Cotton Seeds,	Hides, Skins & Fur Skins, Raw, Unmanufactured Tobacco, Fish Live Fresh or Chilled, Pulses, Raw Animal Materials / Wool, Raw Milk from Bovine Animals, Fresh Fruits, Maize, Eggs, Fuel Wood in Logs, Sorghum / Jowar,
Ores/Minerals, Elec., Gas & Water				Natural Gas Liquefied, Electrical Energy, Coal not Agglomerated, Salt & Pure Sodium Chloride,
Food, Beverages, Tobacco, Textile, Apparel and Leather Product	Vegetable Ghee, Nylon Yarn, Cotton Yarn, Blended Yarn,	Synthetic Carpets,	Footwears, Chocolate, Other Leather N.E.C,	Woolen Carpets, Sugar Confectionary, Towels, Hosiery Products, Readymade Garments, Meat of Animals, Oil Cakes, Bed Sheets, Woven Fabrics, Blankets,
Other Transportable Goods except Metal Products, Machinery and Equipments				Timber, Pesticides, Chemicals, Bed Foam, Glass sheets, Ceramics & Sanitary Fixture, Other Glass Articles, Paints & Varnishes, Mobil Oil, Insecticides, Hard Board, Plastic Products, Auto Tyres,
Metal Product, Machinery & Equipments	Vacuum Pumps,			Concrete Mixture, Steel Bar & Sheets, Lathe Machines, Bicycles, Electric Wires, Motor Vehicles, Fridge, WashM, SewM, Fans, Iron, Motorcycles, Tractors, Radio & Television, Steel Products, Cultivators, Chuff Cutter,

**Table A23: International Commodity Prices/Indices**

Items	Jun-23	Sep-22	Aug-23	Sep-23
<b>Energy</b>				
Crude Oil (US\$ per barrel)	73.3	88.2	84.7	92.2
WB Energy Index (2010 = 100)	95.2	158.2	108.7	117.8
<b>Food</b>				
Rice (\$/MT)	514.0	439.0	635.0	620.0
Wheat (\$/MT)	345.5	419.1	315.8	314.7
Sugar (US cent/ pound)^	0.5	0.4	0.5	0.6
Palm Oil (\$/MT)	817.0	909.3	860.8	829.6
Soybean Oil (\$/MT)	1,007.1	1,548.3	1,126.5	1,111.6
<b>Non-Food Non-Energy</b>				
Cotton Outlook 'A' Index (\$/KG) #	2.0	2.6	2.1	2.2
Metal Price Index (2010 = 100)	106.7	104.6	105.2	105.4
Copper (\$/MT)	8,396.5	7,746.0	8,349.1	8,276.7
Aluminum (\$/MT)	2,184.8	2,224.8	2,136.6	2,184.7
Iron Ore (\$ cents/dry MT)	113.5	99.8	110.2	121.0
Tin (\$/MT)	27,216.7	21,124.0	26,074.9	25,573.9
Nickle (\$/MT)	21,233.3	22,774.0	20,438.7	19,644.6
Zinc (\$/MT)	2,375.5	3,125.0	2,406.7	2,495.5
Lead (\$/MT)	2,122.9	1,870.1	2,153.8	2,252.1
Uranium (\$/MT)	56.1	48.4	59.9	71.6
DAP (\$/MT)	454.6	752.0	528.8	527.9
Urea (\$/MT)	287.5	678.0	385.6	380.0

Source: World Bank for all variables / indices except Uranium which is taken from Cameco (World Largest Uranium Producer)

\$/MT = US\$ per metric tonne.

\* Crude Oil (Petroleum), simple average of three spot prices; Dated Brent, West Texas Intermediate, and the Dubai fateh

# Middling 1-3/32 inch staple, Liverpool Index "A", average of the cheapest Cts/lb five of fourteen styles, CIF Liverpool (Cotton Outlook, Liverpool). From January 1968 to May 1981 strict middling 1-1/16 inch staple. Prior to 1968, Mexican 1-1/16.2/

DAP: Diammonium Phosphate

**Table A24: National CPI Data Series - Original and Seasonally Adjusted**

<b>Original Series</b>					
<b>Month</b>	<b>FY20</b>	<b>FY21</b>	<b>FY22</b>	<b>FY23</b>	<b>FY24</b>
Jul	123.86	135.38	146.76	183.34	235.23
Aug	125.89	136.23	147.61	187.84	239.27
Sep	126.86	138.32	150.74	185.68	244.05
Oct	129.16	140.67	153.61	194.42	
Nov	130.90	141.83	158.18	195.89	
Dec	130.45	140.86	158.16	196.86	
Jan	133.04	140.56	158.78	202.53	
Feb	131.64	143.09	160.61	211.28	
Mar	131.69	143.61	161.88	219.14	
Apr	130.59	145.09	164.50	224.41	
May	131.01	145.24	165.23	227.96	
Jun	132.08	144.82	175.71	227.37	
<b>Seasonally Adjusted Series</b>					
Jul	123.68	135.26	146.67	183.31	235.28
Aug	125.77	136.15	147.56	187.80	239.26
Sep	126.41	137.83	150.20	185.00	243.13
Oct	128.03	139.44	152.26	192.72	
Nov	129.66	140.46	156.66	193.99	
Dec	130.54	140.97	158.32	197.10	
Jan	133.70	141.33	159.72	203.81	
Feb	132.14	143.52	160.97	211.62	
Mar	132.11	143.96	162.19	219.44	
Apr	130.48	144.93	164.27	224.03	
May	131.66	145.96	166.01	229.05	
Jun	133.02	145.96	177.18	229.39	

**Table A25: Urban CPI Data Series - Original and Seasonally Adjusted**

<b>Original Series</b>					
<b>Month</b>	<b>FY20</b>	<b>FY21</b>	<b>FY22</b>	<b>FY23</b>	<b>FY24</b>
Jul	124.95	134.73	146.41	180.95	228.47
Aug	126.77	135.82	147.12	185.72	232.12
Sep	127.72	137.53	150.08	181.90	235.99
Oct	129.75	139.27	152.59	190.08	
Nov	131.05	140.16	156.96	190.80	
Dec	130.57	139.67	157.46	191.46	
Jan	132.77	139.45	157.56	195.97	
Feb	131.32	142.61	159.03	204.87	
Mar	131.49	142.99	160.07	212.85	
Apr	130.60	144.91	162.63	217.11	
May	130.99	145.19	163.13	220.37	
Jun	131.89	144.55	173.23	220.59	
<b>Seasonally Adjusted Series</b>					
Jul	124.49	134.28	145.94	180.43	227.83
Aug	126.41	135.45	146.72	185.20	231.46
Sep	127.27	137.04	149.53	181.22	235.07
Oct	128.81	138.25	151.47	188.68	
Nov	130.14	139.19	155.89	189.51	
Dec	130.89	140.02	157.87	191.99	
Jan	133.61	140.42	158.76	197.58	
Feb	131.87	143.11	159.50	205.35	
Mar	132.05	143.49	160.55	213.39	
Apr	130.36	144.61	162.25	216.54	
May	131.39	145.63	163.59	220.99	
Jun	132.68	145.52	174.50	222.32	

**Table A26: Rural CPI Data Series - Original and Seasonally Adjusted**

<b>Original Series</b>					
<b>Month</b>	<b>FY20</b>	<b>FY21</b>	<b>FY22</b>	<b>FY23</b>	<b>FY24</b>
Jul	122.22	136.36	147.28	186.94	245.44
Aug	124.56	136.84	148.34	191.04	250.06
Sep	125.55	139.51	151.74	191.38	256.21
Oct	128.28	142.79	155.15	200.96	
Nov	130.67	144.34	160.03	203.57	
Dec	130.28	142.65	159.21	205.00	
Jan	133.44	142.23	160.62	212.43	
Feb	132.13	143.82	162.99	220.95	
Mar	132.00	144.55	164.62	228.63	
Apr	130.58	145.37	167.31	235.43	
May	131.03	145.32	168.39	239.42	
Jun	132.36	145.24	179.45	237.61	
<b>Seasonally Adjusted Series</b>					
Jul	122.46	136.74	147.78	187.67	246.52
Aug	124.82	137.22	148.83	191.74	251.04
Sep	125.11	139.03	151.22	190.72	255.29
Oct	126.87	141.23	153.47	198.82	
Nov	128.93	142.38	157.84	200.74	
Dec	130.01	142.41	158.99	204.81	
Jan	133.85	142.70	161.18	213.21	
Feb	132.53	144.12	163.20	221.07	
Mar	132.21	144.68	164.67	228.57	
Apr	130.68	145.42	167.31	235.34	
May	132.07	146.45	169.66	241.21	
Jun	133.54	146.61	181.23	240.07	

**Table A27: National CPI Monthly & Average Seasonal Factors**

Month	FY20	FY21	FY22	FY23	FY24	Average
Jul	100.14	100.09	100.06	100.02	99.98	100.06
Aug	100.09	100.06	100.03	100.02	100.00	100.04
Sep	100.36	100.35	100.36	100.37	100.38	100.36
Oct	100.88	100.88	100.88	100.88		100.88
Nov	100.96	100.97	100.97	100.98		100.97
Dec	99.93	99.92	99.90	99.88		99.91
Jan	99.50	99.45	99.41	99.37		99.43
Feb	99.62	99.70	99.77	99.84		99.74
Mar	99.68	99.75	99.81	99.86		99.78
Apr	100.08	100.11	100.14	100.17		100.12
May	99.51	99.51	99.53	99.53		99.52
Jun	99.29	99.22	99.17	99.12		99.20

**Table A28: Urban CPI Monthly & Average Seasonal Factors**

Month	FY20	FY21	FY22	FY23	FY24	Average
Jul	100.37	100.34	100.32	100.30	100.28	100.32
Aug	100.29	100.28	100.27	100.28	100.28	100.28
Sep	100.35	100.36	100.37	100.38	100.39	100.37
Oct	100.73	100.73	100.74	100.74		100.74
Nov	100.70	100.70	100.69	100.68		100.69
Dec	99.76	99.75	99.74	99.72		99.74
Jan	99.37	99.31	99.24	99.19		99.28
Feb	99.58	99.65	99.71	99.76		99.67
Mar	99.58	99.65	99.70	99.75		99.67
Apr	100.19	100.21	100.23	100.27		100.22
May	99.70	99.70	99.72	99.72		99.71
Jun	99.41	99.33	99.27	99.22		99.31

**Table A29: Rural CPI Monthly & Average Seasonal Factors**

<b>Month</b>	<b>FY20</b>	<b>FY21</b>	<b>FY22</b>	<b>FY23</b>	<b>FY24</b>	<b>Average</b>
Jul	99.80	99.72	99.66	99.61	99.56	99.67
Aug	99.79	99.72	99.67	99.64	99.61	99.69
Sep	100.35	100.35	100.35	100.35	100.36	100.35
Oct	101.11	101.11	101.10	101.08		101.10
Nov	101.35	101.38	101.39	101.41		101.38
Dec	100.21	100.17	100.14	100.09		100.15
Jan	99.68	99.67	99.65	99.63		99.66
Feb	99.69	99.79	99.87	99.94		99.82
Mar	99.84	99.91	99.97	100.02		99.94
Apr	99.93	99.96	100.00	100.04		99.98
May	99.21	99.23	99.25	99.26		99.24
Jun	99.12	99.06	99.02	98.98		99.04

**Table A30: National CPI MoM - Original and Seasonally Adjusted**

<b>Original Series</b>						
<b>Month</b>	<b>FY20</b>	<b>FY21</b>	<b>FY22</b>	<b>FY23</b>	<b>FY24</b>	
Jul	1.83	2.50	1.34	4.34	3.46	
Aug	1.64	0.63	0.58	2.45	1.72	
Sep	0.77	1.53	2.12	-1.15	2.00	
Oct	1.81	1.70	1.90	4.71		
Nov	1.35	0.82	2.98	0.76		
Dec	-0.34	-0.68	-0.01	0.50		
Jan	1.99	-0.21	0.39	2.88		
Feb	-1.05	1.80	1.15	4.32		
Mar	0.04	0.36	0.79	3.72		
Apr	-0.84	1.03	1.62	2.40		
May	0.32	0.10	0.44	1.58		
Jun	0.82	-0.29	6.34	-0.26		
<b>Seasonally Adjusted Series</b>						
Jul	1.03	1.68	0.49	3.46	2.57	
Aug	1.69	0.66	0.61	2.45	1.69	
Sep	0.50	1.23	1.79	-1.49	1.62	
Oct	1.28	1.17	1.37	4.17		
Nov	1.27	0.73	2.89	0.65		
Dec	0.68	0.36	1.06	1.61		
Jan	2.42	0.26	0.89	3.40		
Feb	-1.17	1.54	0.78	3.83		
Mar	-0.02	0.31	0.75	3.70		
Apr	-1.23	0.67	1.28	2.09		
May	0.90	0.71	1.06	2.24		
Jun	1.03	0.00	6.73	0.15		

**Table A31: Urban CPI MoM - Original and Seasonally Adjusted**

<b>Original Series</b>						
<b>Month</b>	<b>FY20</b>	<b>FY21</b>	<b>FY22</b>	<b>FY23</b>	<b>FY24</b>	
Jul	1.98	2.15	1.29	4.46	3.57	
Aug	1.46	0.81	0.48	2.64	1.60	
Sep	0.75	1.26	2.01	-2.06	1.67	
Oct	1.59	1.27	1.67	4.50		
Nov	1.00	0.64	2.86	0.38		
Dec	-0.37	-0.35	0.32	0.35		
Jan	1.68	-0.16	0.06	2.36		
Feb	-1.09	2.27	0.93	4.54		
Mar	0.13	0.27	0.65	3.90		
Apr	-0.68	1.34	1.60	2.00		
May	0.30	0.19	0.31	1.50		
Jun	0.69	-0.44	6.19	0.10		
<b>Seasonally Adjusted Series</b>						
Jul	1.07	1.20	0.28	3.39	2.48	
Aug	1.54	0.87	0.54	2.64	1.60	
Sep	0.68	1.18	1.91	-2.15	1.56	
Oct	1.20	0.89	1.30	4.12		
Nov	1.04	0.68	2.92	0.44		
Dec	0.57	0.59	1.27	1.31		
Jan	2.08	0.29	0.56	2.91		
Feb	-1.30	1.92	0.47	3.93		
Mar	0.13	0.26	0.66	3.92		
Apr	-1.28	0.78	1.06	1.47		
May	0.79	0.70	0.83	2.06		
Jun	0.98	-0.07	6.67	0.60		

**Table A32: Rural CPI MoM - Original and Seasonally Adjusted**

<b>Original Series</b>						
<b>Month</b>	<b>FY20</b>	<b>FY21</b>	<b>FY22</b>	<b>FY23</b>	<b>FY24</b>	
Jul	1.60	3.02	1.40	4.17	3.30	
Aug	1.91	0.35	0.72	2.19	1.88	
Sep	0.79	1.95	2.29	0.18	2.46	
Oct	2.17	2.35	2.25	5.01		
Nov	1.86	1.09	3.15	1.30		
Dec	-0.30	-1.17	-0.51	0.70		
Jan	2.43	-0.29	0.89	3.62		
Feb	-0.98	1.12	1.48	4.01		
Mar	-0.10	0.51	1.00	3.48		
Apr	-1.08	0.57	1.63	2.97		
May	0.34	-0.03	0.65	1.69		
Jun	1.02	-0.06	6.57	-0.76		
<b>Seasonally Adjusted Series</b>						
Jul	0.96	2.40	0.79	3.56	2.69	
Aug	1.93	0.35	0.71	2.16	1.83	
Sep	0.23	1.32	1.60	-0.53	1.69	
Oct	1.41	1.58	1.49	4.25		
Nov	1.63	0.82	2.85	0.96		
Dec	0.83	0.02	0.73	2.03		
Jan	2.95	0.21	1.38	4.10		
Feb	-0.98	0.99	1.25	3.69		
Mar	-0.25	0.38	0.90	3.39		
Apr	-1.16	0.52	1.61	2.96		
May	1.07	0.71	1.41	2.49		
Jun	1.11	0.11	6.82	-0.47		

**Figures**

**Figure A1: National CPI Inflation – Non Food Groups (YoY, 12MMA, MoM in percent)**

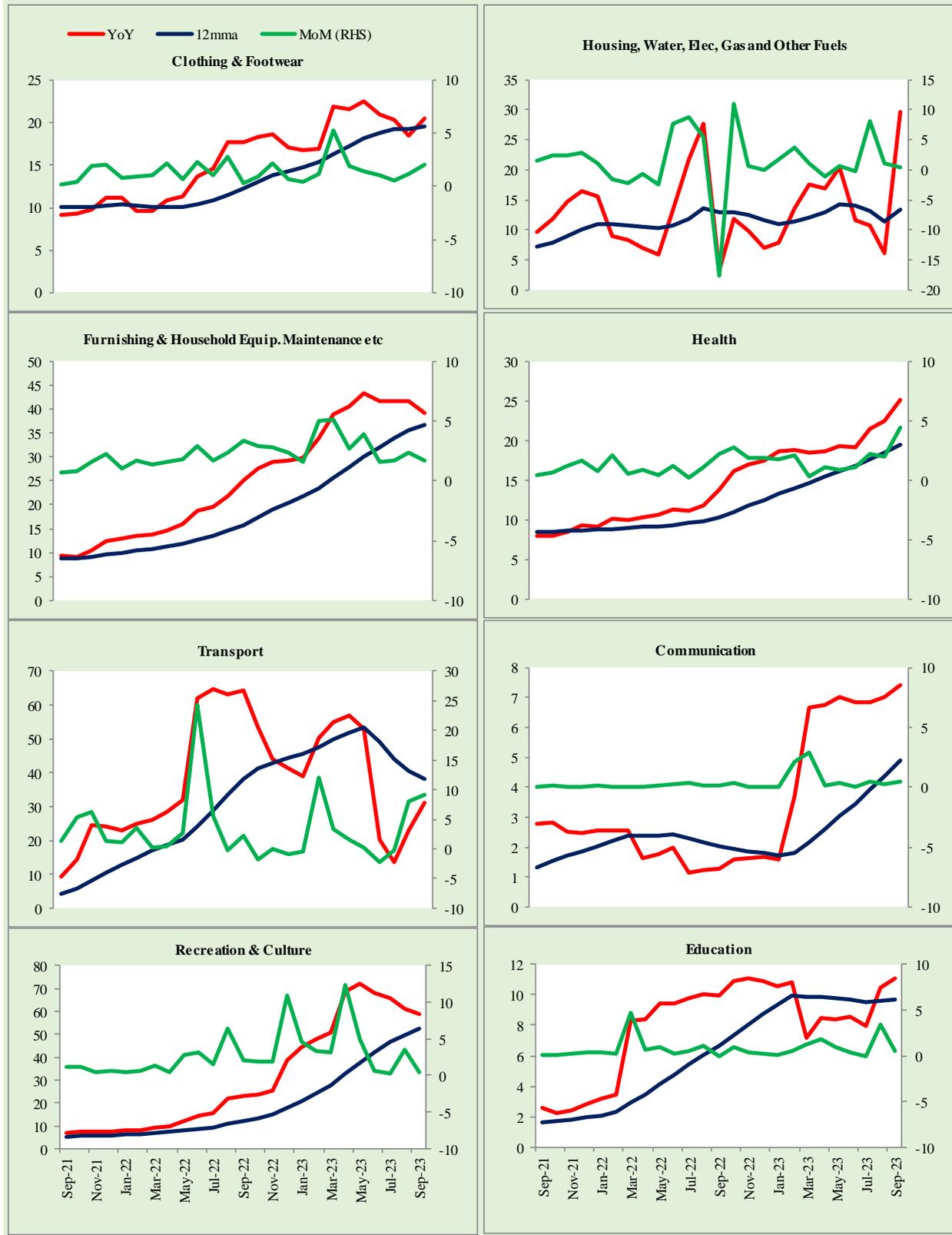


Figure A2: Urban CPI Inflation – Non Food Groups (YoY, 12MMA, MoM in percent)

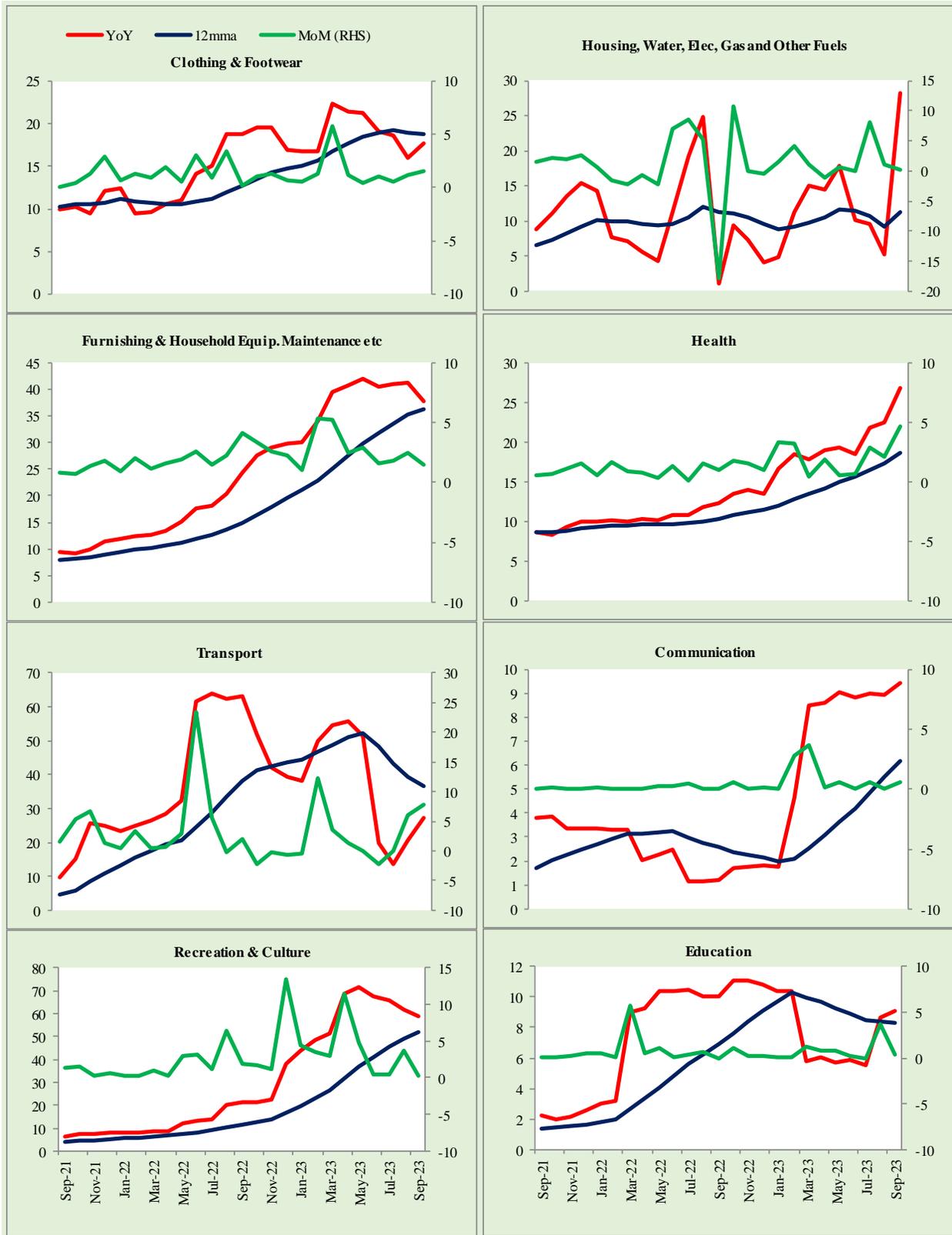
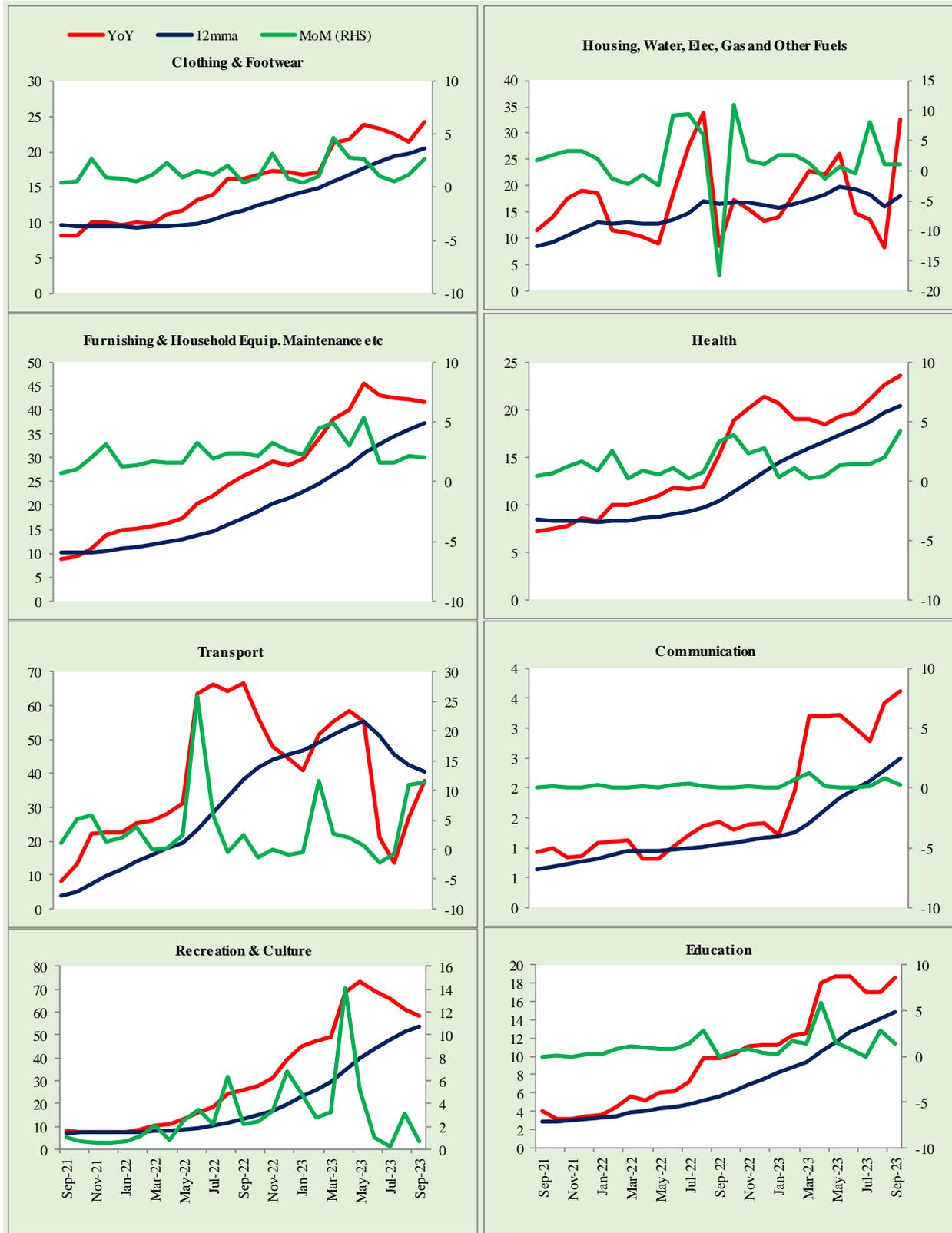
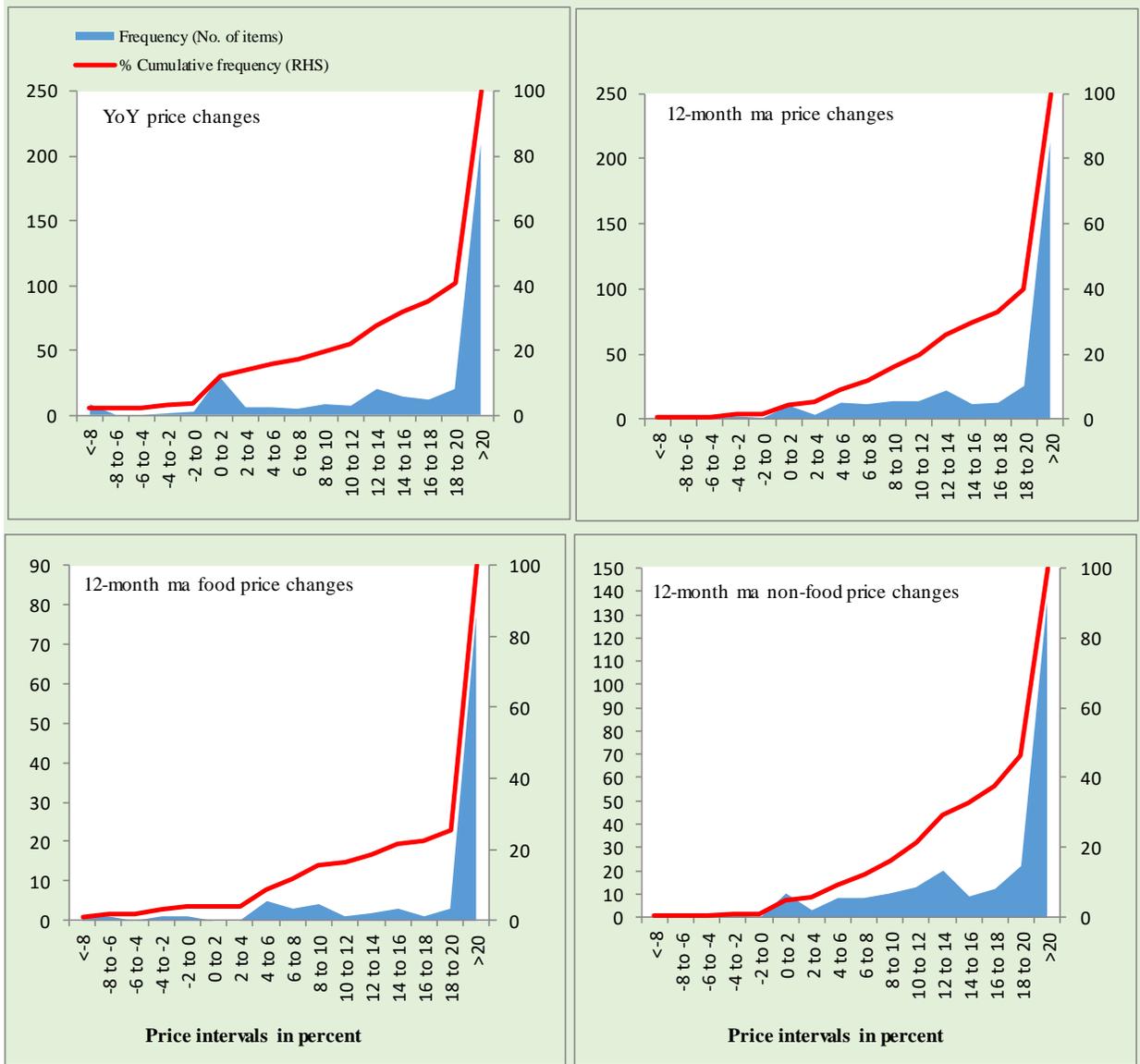


Figure A3: Rural CPI Inflation – Non Food Groups (YoY, 12MMA, MoM in percent)

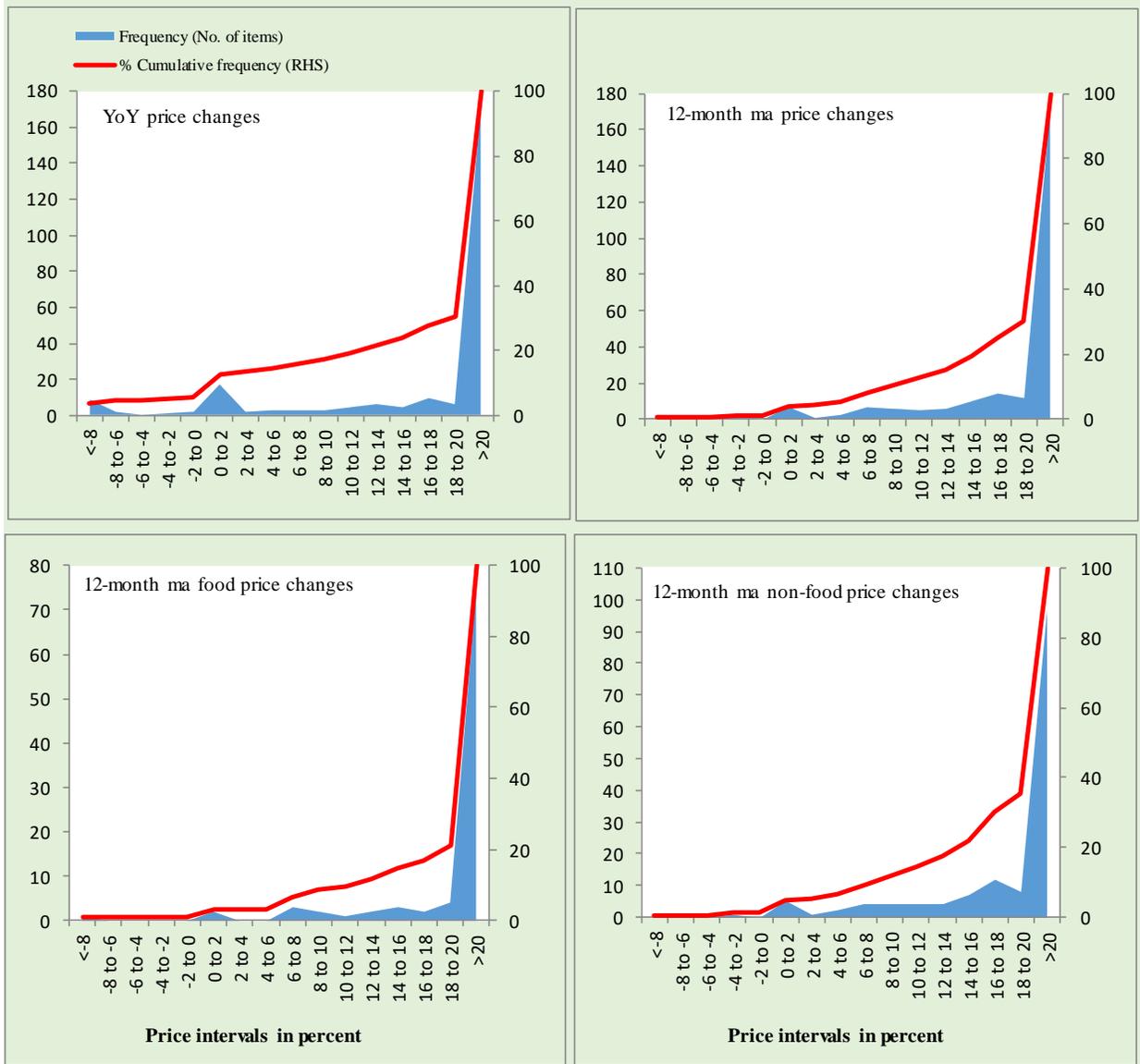


**Figure A4: Frequency Distribution of Price Changes of Urban CPI Items (YoY)**



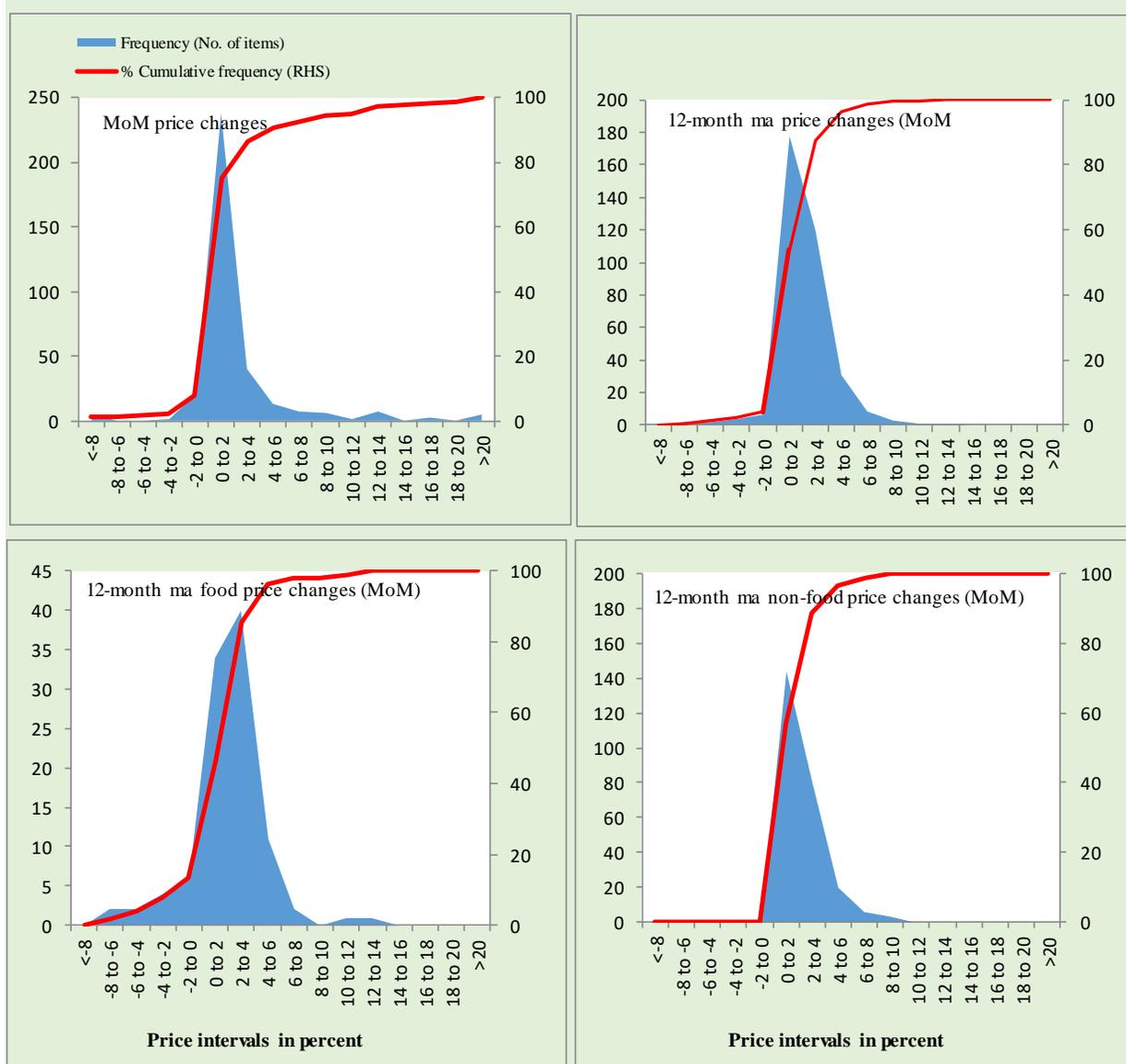
Total Items in CPI Basket (356), Food Items (103) and non-Food Items (253).

**Figure A5: Frequency Distribution of Price Changes of Rural CPI Items (YoY)**



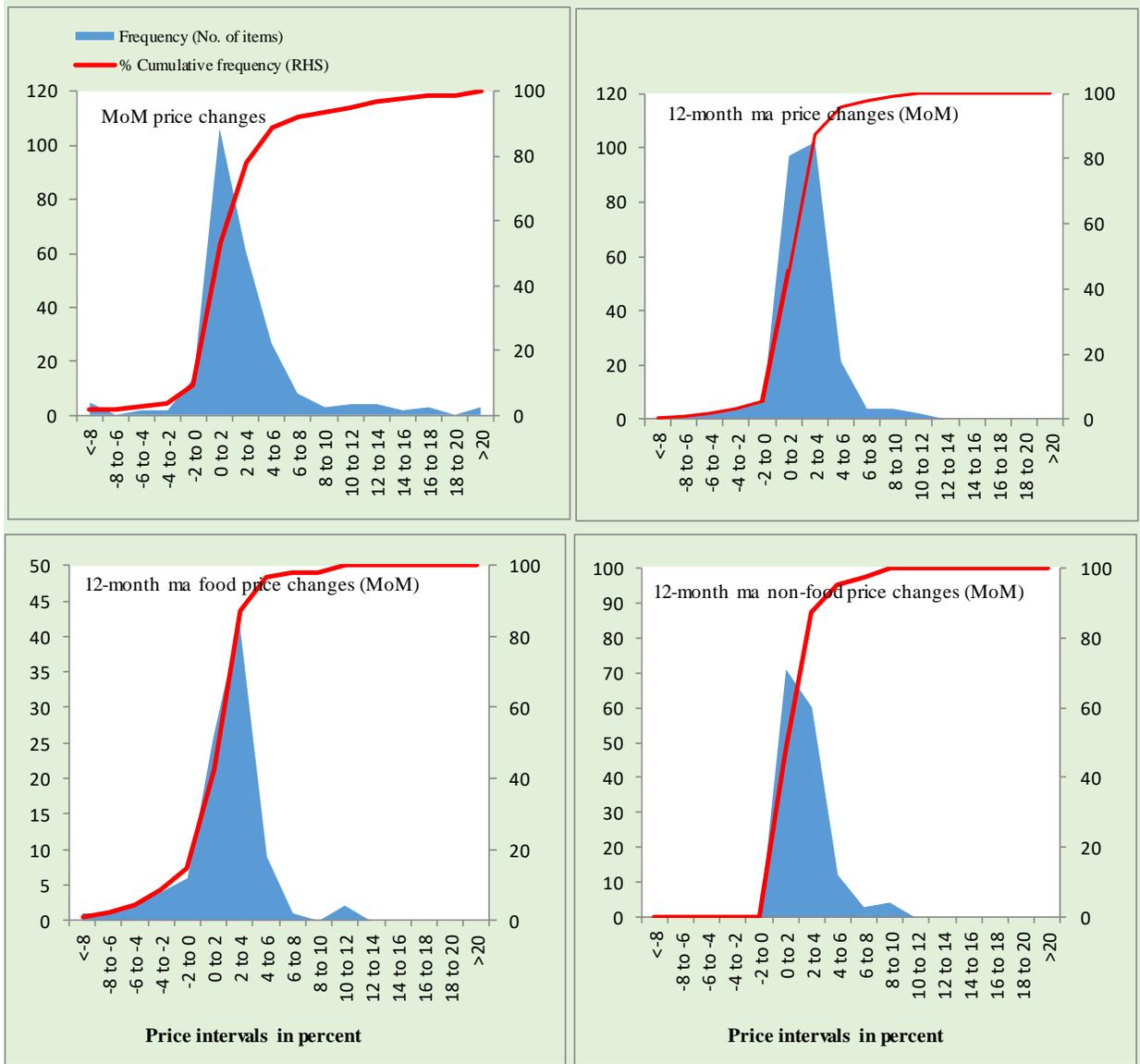
Total Items in CPI Basket (244), Food Items (94) and non-Food Items (150).

**Figure A6: Frequency Distribution of Price Changes of Urban CPI Items (MoM)**



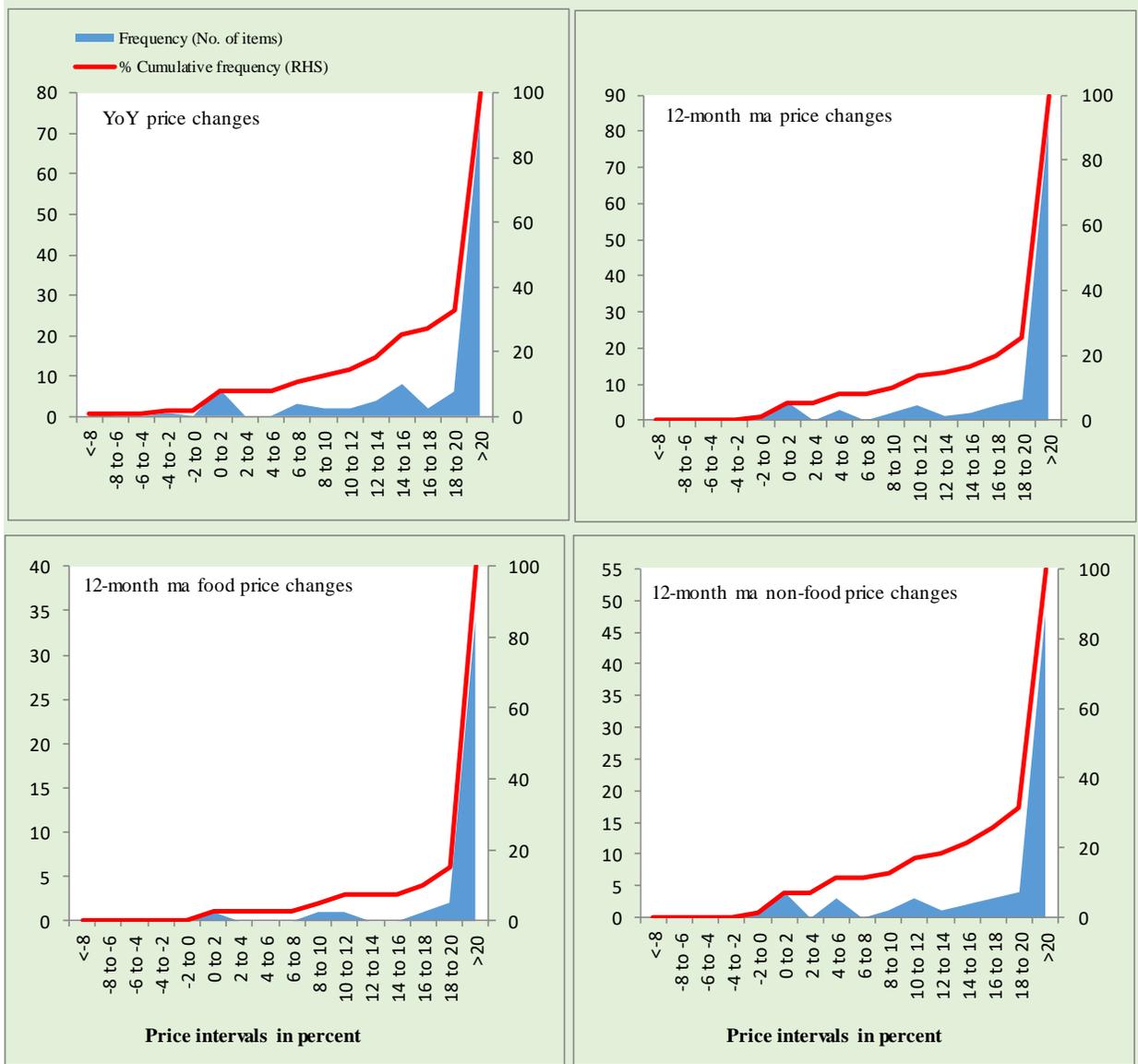
Total Items in CPI Basket (356), Food Items (103) and non-Food Items (253).

**Figure A7: Frequency Distribution of Price Changes of Rural CPI Items (MoM)**



Total Items in CPI Basket (244), Food Items (94) and non-Food Items (150).

**Figure A8: Frequency Distribution of Price Changes of WPI Commodities (YoY)**



Total Items in WPI Basket (110), Food Items (40) and non-Food Items (70).

## Technical Notes

1. All the three measures of inflation, viz. CPI (National, Urban and Rural), WPI and SPI are computed by the following Laspeyres Index formula:

$$I_t = \sum_j w_0^j \left( \frac{P_t^j}{P_0^j} \right)$$

Where  $I_t$  is price index,  $w_0^j$  is weight of commodity  $j$  in the overall basket,  $P_t^j$  is price of commodity  $j$  in period  $t$  and  $P_0^j$  is its price in the base year.

2. Base year for all the indices is the year 2015-16.
3. CPI baskets for urban and rural areas contains 356 and 244 consumers' items respectively; WPI basket contains 419 items; SPI contains 51 items.
4. YoY inflation is the percent change of an index in a given month over the index in the same month of the last year. It is computed as follows:

$$\pi_t = \left( \frac{I_t}{I_{t-12}} - 1 \right) \times 100$$

5. Period average inflation is the percent change of the average index during the period from December to the given month of a fiscal year over the average index during the corresponding period of the last year. It is computed as follows:

$$\bar{\pi}_t = \left( \frac{\sum_{i=0}^{t-v} I_{t-i}}{\sum_{i=0}^{t-12-v} I_{t-12-i}} - 1 \right) \times 100$$

Where  $v$  is the serial number of the month of December of current fiscal year in a given time series.

6. Monthly inflation is the percent change of an index in a given month over the index in the preceding month. It is computed as follows:

$$\pi_t = \left( \frac{I_t}{I_{t-1}} - 1 \right) \times 100$$

7. 12-month moving average inflation (Long-run trend inflation) is the percent change of 12-month moving average of a price index; it is computed as follows:

$$\tilde{\pi}_t = \left( \frac{\sum_{i=0}^{11} I_{t-i}}{\sum_{i=0}^{11} I_{t-12-i}} - 1 \right) \times 100$$

8. Core Inflation is defined as the persistent component of measured inflation that excludes volatile and controlled prices. It reflects the normal supply and demand conditions in the economy. Core inflation is computed by the following two methods i.e. NFNE inflation and trimmed inflation:

- a) Non-food, Non-energy inflation (NFNE inflation); it is computed by excluding food group and energy items (kerosene oil, petrol, diesel, CNG, electricity and natural gas) from the CPI basket.

- b) 20% trimmed-mean inflation; it is computed through the following steps:
- i. All CPI items are arranged in ascending order according to YoY/12-month moving average/monthly/period average changes in their price indices in a given month.
  - ii. 20 percent of the items showing extreme changes are excluded with 10 percent of the items at the top of the list (corresponding to cumulative weight of 90% or more) and 10 percent of the items at the bottom of the list (corresponding to cumulative weight of 10 percent or less).
  - iii. The weighted mean of the changes in price indices of the rest of the items is core inflation.
9. Weighted contribution of different items (or sub-groups) to total inflation is worked out as below:  
Let the overall index ( $I_t$ ) is the weighted average of price indices of individual items or sub-groups ( $I_{it}$ ), i.e.

$$I_t = \sum_i w_i \cdot I_{it}$$

The weighted contribution of a single item (or a sub-group) to overall inflation is defined as below:

$$C_{it} = \alpha_{it-12} \cdot w_i \cdot \left( \frac{\pi_{it}}{\pi_t} \right)$$

Where  $C_{it}$  : Contribution of  $i^{\text{th}}$  item to the overall inflation

$$\alpha_{it-12} = \frac{I_{it-12}}{I_{t-12}} ; \text{ i.e. ratio of item's index to overall index in the}$$

reference month

$w_i$  : Weights of  $i^{\text{th}}$  item

$\pi_{it}$  : Inflation of  $i^{\text{th}}$  item

$\pi_t$  : Overall inflation

## Methodology for Estimating Inflation Diffusion Index for Pakistan

We constructed an index to measure the spread of inflation in the 356 and 244 items of CPI urban and rural baskets respectively. It is based on month-on-month (MoM) change in the prices of these items and can be obtained by estimating what is known as an ‘inflation diffusion index’ (IDI) as below:

$$IDI = \frac{\text{No. of items with positive MoM change in price} - \text{No. of items with negative MoM change in price}}{\text{No. of items for which prices are reported}} * 100$$

Thus, it is the difference between the share of items with increasing prices (i.e. depicting inflation) and the share of items with falling prices (i.e. depicting deflation) in CPI amongst the items for which prices have altered or remained constant<sup>2</sup>.

---

<sup>2</sup> Prices of certain items (like the seasonal items) during certain period may not be observed/available. To calculate the inflation diffusion index, the items for which prices have been reported (irrespective of changed or not) during the month under review are considered.