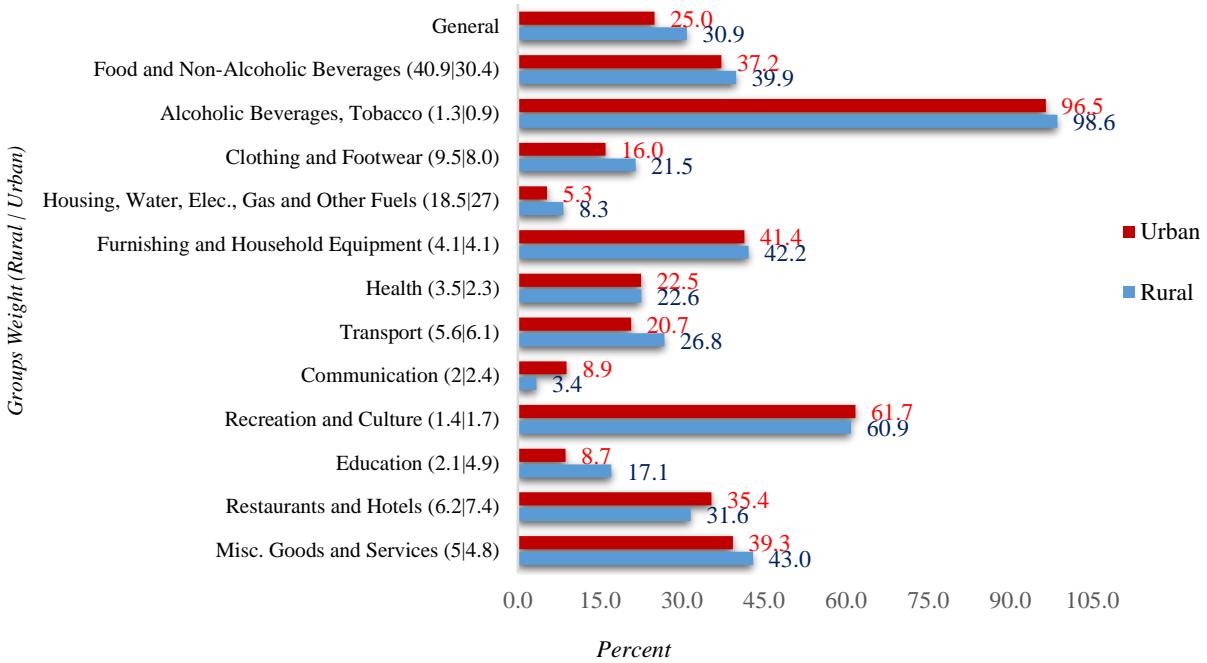




# Inflation Monitor

August 2023

## Group-wise Rural and Urban Inflation (YoY)



**State Bank of Pakistan**  
*Data Services and Innovations Department*



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 .....	5
2. CPI Inflation Heat Maps .....	7
3. Inflation Trends .....	11
4. Movements in Price Indices (Moving Averages) .....	12
5. Movements in Price Indices (MoM) .....	13
6. Consumer Price Indices and Inflation .....	15
7. Weighted Contribution .....	18
8. Inflation Diffusion Index .....	20
9. Domestic Food Commodity Prices (Growth) .....	21
10. Inflation in Global Context .....	22
11. Global Commodity Prices and Indices (Growth) .....	23
12. Seasonal Adjustment in CPI .....	24
<b>List of Illustrations .....</b>	<b>28</b>
<b>Tables .....</b>	<b>28</b>
<b>Table A1: Inflation – Summary .....</b>	<b>28</b>
<b>Table A2: National CPI Inflation by Groups (YoY and MoM in percent) .....</b>	<b>29</b>
<b>Table A3: Urban CPI Inflation by Groups (YoY and MoM in percent) .....</b>	<b>29</b>
<b>Table A4: Rural CPI Inflation by Groups (YoY and MoM in percent) .....</b>	<b>30</b>
<b>Table A5: National CPI Inflation by Groups .....</b>	<b>31</b>
<b>Table A6: Urban CPI Inflation by Groups .....</b>	<b>32</b>
<b>Table A7: Rural CPI Inflation by Groups .....</b>	<b>33</b>
<b>Table A8: Top Ten Contributors to Urban CPI Inflation (YoY) .....</b>	<b>34</b>
<b>Table A9: Top Ten Contributors to Urban CPI Inflation (MoM) .....</b>	<b>35</b>
<b>Table A10: Top and Bottom Fifteen Contributors to Urban CPI Inflation (YoY) .....</b>	<b>36</b>
<b>Table A12: Top and Bottom Fifteen Contributors to MoM Urban CPI Food Inflation .....</b>	<b>38</b>
<b>Table A13: Top and Bottom Fifteen Contributors to MoM Urban CPI Non-Food Inflation .....</b>	<b>39</b>
<b>Table A14: Top Ten Contributors to Rural CPI Inflation (YoY) .....</b>	<b>40</b>
<b>Table A15: Top Ten Contributors to Rural CPI Inflation (MoM) .....</b>	<b>41</b>
<b>Table A16: Top and Bottom Fifteen Contributors to Rural CPI Inflation (YoY) .....</b>	<b>42</b>
<b>Table A17: Top and Bottom Fifteen Contributors to Rural CPI Inflation (MoM) .....</b>	<b>43</b>
<b>Table A18: Top and Bottom Fifteen Contributors to Rural CPI Food Inflation (MoM) .....</b>	<b>44</b>
<b>Table A19: Top and Bottom Fifteen Contributors to MoM Rural CPI Non-Food Inflation .....</b>	<b>45</b>
<b>Table A20: Distribution of Price Changes (YoY) - Selected Urban CPI Item .....</b>	<b>46</b>
<b>Table A21: Distribution of Price Changes (YoY) - Selected Rural CPI Items .....</b>	<b>47</b>
<b>Table A22: Distribution of Price Changes (YoY) - WPI Items .....</b>	<b>48</b>
<b>Table A23: International Commodity Prices/Indices .....</b>	<b>49</b>
<b>Table A24: National CPI Data Series - Original and Seasonally Adjusted .....</b>	<b>50</b>
<b>Table A25: Urban CPI Data Series - Original and Seasonally Adjusted .....</b>	<b>51</b>
<b>Table A26: Rural CPI Data Series - Original and Seasonally Adjusted .....</b>	<b>52</b>
<b>Table A27: National CPI Monthly &amp; Average Seasonal Factors .....</b>	<b>53</b>
<b>Table A28: Urban CPI Monthly &amp; Average Seasonal Factors .....</b>	<b>53</b>
<b>Table A29: Rural CPI Monthly &amp; Average Seasonal Factors .....</b>	<b>54</b>
<b>Table A30: National CPI MoM - Original and Seasonally Adjusted .....</b>	<b>55</b>
<b>Table A31: Urban CPI MoM - Original and Seasonally Adjusted .....</b>	<b>56</b>
<b>Table A32: Rural CPI MoM - Original and Seasonally Adjusted .....</b>	<b>57</b>
<b>Figures .....</b>	<b>58</b>

---

Figure A1: National CPI Inflation – Non Food Groups (YoY, 12MMA, MoM in percent) .....	58
Figure A2: Urban CPI Inflation – Non Food Groups (YoY, 12MMA, MoM in percent) .....	59
Figure A3: Rural CPI Inflation – Non Food Groups (YoY, 12MMA, MoM in percent) .....	60
Figure A4: Frequency Distribution of Price Changes of Urban CPI Items (YoY) .....	61
Figure A5: Frequency Distribution of Price Changes of Rural CPI Items (YoY) .....	62
Figure A6: Frequency Distribution of Price Changes of Urban CPI Items (MoM) .....	63
Figure A7: Frequency Distribution of Price Changes of Rural CPI Items (MoM) .....	64
Figure A8: Frequency Distribution of Price Changes of WPI Commodities (YoY) .....	65
Technical Notes .....	66
Methodology for Estimating Inflation Diffusion Index for Pakistan .....	68

## **Team**

### **Publication Author**

Sohail Haider	Deputy Director
---------------	-----------------

### **Publication Reviewer**

Syed Aamir Ali Bokhari	Joint Director
------------------------	----------------

### **Publication Manager**

Salman Ahmed	Senior Joint Director
--------------	-----------------------

## **Data Support**

We are thankful to Pakistan Bureau of Statistics (PBS) for data support

## 1. Inflation in Brief

Key developments are presented in the Summary Table

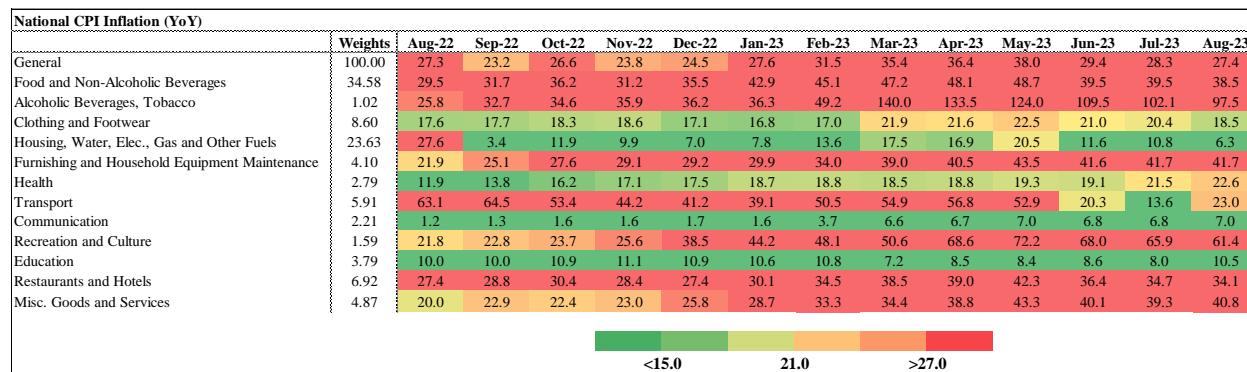
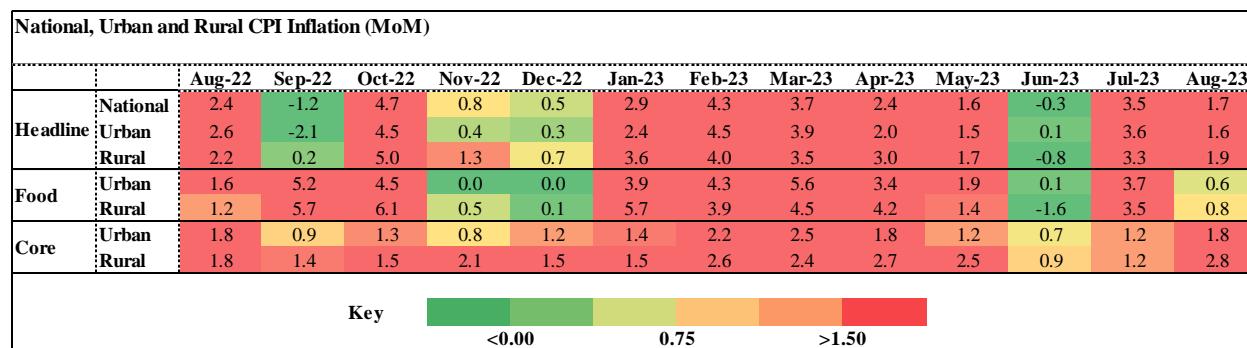
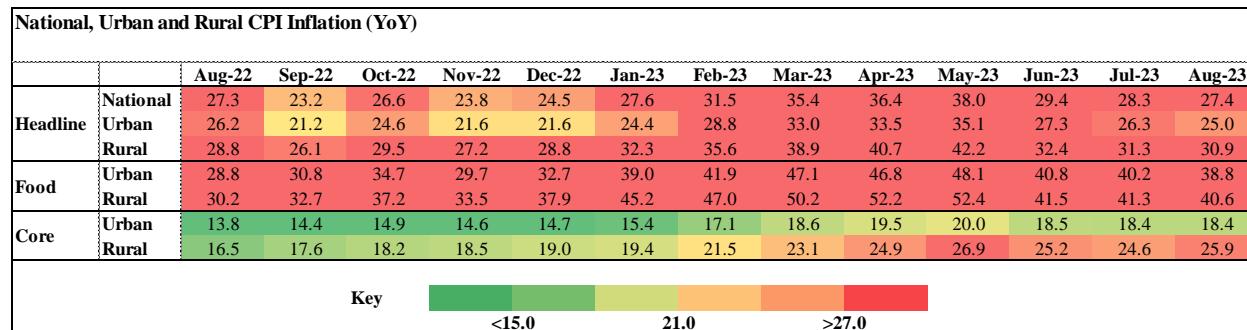
Inflation Category	YoY			MoM		
	Aug-23	Jul-23	Aug-22	Aug-23	Jul-23	Aug-22
CPI Inflation - National	27.4	28.3	27.3	1.7	3.5	2.4
- Urban	25.0	26.3	26.2	1.6	3.6	2.6
- Rural	30.9	31.3	28.8	1.9	3.3	2.2
- Urban Core NFNE	18.4	18.4	13.8	1.8	1.2	1.8
- Rural Core NFNE	25.9	24.6	16.5	2.8	1.2	1.8
- Urban Core Trimmed	23.0	21.7	21.4	1.5	1.9	1.7
- Rural Core Trimmed	30.5	28.7	23.8	1.4	2.4	1.8
WPI Inflation	24.3	23.1	41.2	4.2	2.5	3.1
SPI Inflation	28.7	29.0	40.6	5.5	2.1	5.6

- I. National CPI Inflation (YoY) decreased to 27.4 percent in August 2023 from 28.3 percent in the previous month. It was recorded at 27.3 percent in the corresponding month of last year. National CPI Inflation (MoM) decreased to 1.7 percent in August 2023 from 3.5 percent in the previous month. It was recorded at 2.4 percent during the corresponding month of last year.
- II. Urban CPI Inflation (YoY) decreased to 25.0 percent in August 2023 from 26.3 percent in the previous month. It stood at 26.2 percent during the corresponding month of last year. On MoM basis, it decreased to 1.6 percent in August 2023 from 3.6 percent in the previous month. It stood at 2.6 percent during the corresponding month of last year. Seasonally adjusted MoM Urban CPI showed an inflation of 1.5 percent in August 2023 compared to 2.4 percent in the previous month.
- III. Rural CPI Inflation (YoY) decreased to 30.9 percent in August 2023 from 31.3 percent in previous month. It was recorded at 28.8 percent during the corresponding month of last year. On MoM basis, it decreased to 1.9 percent in August 2023 from 3.3 percent in the previous month. It stood at 2.2 percent during the corresponding month of last year. Seasonally adjusted MoM Rural CPI showed an inflation of 1.9 percent in August 2023 as compared to 2.7 percent in previous month.
- IV. Urban Core (NFNE) Inflation (YoY) remained at 18.4 percent in August 2023 like previous month. It stood at 13.8 percent during the corresponding month of last year. On MoM basis, it increased to 1.8 percent in August 2023 from 1.2 percent in the previous month. It stood at 1.8 percent during the corresponding month of last year.
- V. Rural Core (NFNE) Inflation (YoY) increased to 25.9 percent in August 2023 from 24.6 percent in the previous month. It stood at 16.5 percent during the corresponding month of last year. On MoM basis, it increased to 2.8 percent in August 2023 from 1.2 percent in the previous month. It was recorded at 1.8 percent during the corresponding month of last year.
- VI. Urban Core (trimmed) Inflation (YoY) increased to 23.0 percent in August 2023 from 21.7 percent in the previous month. It stood at 21.4 percent during the corresponding month of last year. On MoM basis, it decreased to 1.5 percent in August 2023 from 1.9 percent in previous month. It stood at 1.7 percent during the corresponding month of last year.

- VII. Rural Core (trimmed) Inflation (YoY) increased to 30.5 percent in August 2023 from 28.7 percent in the previous month. It was recorded at 23.8 percent during the corresponding month of last year. On MoM basis, it decreased to 1.4 percent in August 2023 from 2.4 percent in the previous month. It stood at 1.8 percent during the corresponding month of last year.
- VIII. WPI Inflation (YoY) increased to 24.3 percent in August 2023 from 23.1 percent in the previous month. It stood at 41.2 percent during the corresponding month of last year. On MoM basis, it increased to 4.2 percent in August 2023 from 2.5 percent in the previous month. It stood at 3.1 percent during the corresponding month of last year.
- IX. SPI (combined) Inflation (YoY) decreased to 28.7 percent in August 2023 from 29.0 percent in the previous month. During the corresponding month of last year, it stood at 40.6 percent. On MoM basis, it increased to 5.5 percent in August 2023 from 2.1 percent in the previous month. It stood at 5.6 percent during the corresponding month of last year.

## 2. CPI Inflation Heat Maps

Heat map is 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>.



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

Urban CPI Inflation (YoY)	Weights	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23
General	100.00	26.2	21.2	24.6	21.6	21.6	24.4	28.8	33.0	33.5	35.1	27.3	26.3	25.0
Food and Non-Alcoholic Beverages	30.42	28.9	30.7	34.8	28.9	32.6	39.5	42.1	45.5	45.1	45.8	38.6	38.7	37.2
Alcoholic Beverages, Tobacco	0.85	25.8	34.1	35.4	37.2	37.3	37.3	54.9	140.8	133.7	124.5	107.6	102.6	96.5
Clothing and Footwear	8.01	18.8	18.9	19.5	19.6	17.0	16.8	16.8	22.4	21.5	21.3	19.1	18.6	16.0
Housing, Water, Elec., Gas and Other Fuels	27.03	24.8	1.0	9.5	7.3	4.1	5.0	11.2	15.0	14.5	18.0	10.2	9.6	5.3
Furnishing and Household Equipment Maintenance	4.09	20.3	24.3	27.6	29.0	29.7	30.0	34.1	39.6	40.8	42.1	40.6	41.1	41.4
Health	2.31	11.8	12.3	13.6	14.1	13.5	16.7	18.5	17.9	19.1	19.4	18.5	21.9	22.5
Transport	6.14	62.4	63.3	51.7	42.1	39.2	38.0	49.9	54.6	55.9	51.4	20.0	13.6	20.7
Communication	2.35	1.2	1.2	1.7	1.8	1.8	1.8	4.6	8.5	8.6	9.0	8.8	9.0	8.9
Recreation and Culture	1.73	20.4	21.1	21.4	22.3	38.0	43.6	48.4	51.4	68.5	71.6	67.3	65.8	61.7
Education	4.88	10.1	10.0	11.1	11.1	10.8	10.4	10.4	5.8	6.0	5.7	5.9	5.6	8.7
Restaurants and Hotels	7.41	27.4	29.1	31.8	29.5	28.6	32.4	35.2	39.8	40.4	46.1	38.8	35.8	35.4
Misc. Goods and Services	4.77	20.1	23.1	23.7	23.8	25.9	28.8	33.3	34.3	39.1	43.0	39.5	39.1	39.3

Rural CPI Inflation (YoY)														
	Weights	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23
General	100.00	28.8	26.1	29.5	27.2	28.8	32.3	35.6	38.9	40.7	42.2	32.4	31.3	30.9
Food and Non-Alcoholic Beverages	40.87	30.2	32.8	37.9	33.7	38.7	46.8	48.3	49.0	51.4	51.9	40.4	40.5	39.9
Alcoholic Beverages, Tobacco	1.28	25.8	31.1	33.7	34.4	35.0	35.2	42.7	139.1	133.3	123.3	111.8	101.5	98.6
Clothing and Footwear	9.48	16.2	16.3	16.8	17.4	17.2	16.7	17.2	21.3	21.8	23.9	23.3	22.5	21.5
Housing, Water, Elec., Gas and Other Fuels	18.49	33.9	8.6	17.3	15.6	13.2	14.0	18.6	22.9	22.2	26.0	14.8	13.5	8.3
Furnishing and Household Equipment Maintenance	4.10	24.2	26.2	27.7	29.2	28.6	29.8	33.9	38.1	40.2	45.5	43.1	42.6	42.2
Health	3.51	12.0	15.2	18.9	20.2	21.4	20.7	19.1	19.0	18.4	19.3	19.7	21.2	22.6
Transport	5.56	64.2	66.6	56.4	47.9	44.6	41.0	51.4	55.5	58.4	55.5	20.9	13.6	26.8
Communication	1.99	1.4	1.4	1.3	1.4	1.4	1.2	1.9	3.2	3.2	3.2	3.0	2.8	3.4
Recreation and Culture	1.38	24.3	25.7	27.7	31.3	39.4	45.1	47.4	49.2	68.9	73.2	69.2	65.9	60.9
Education	2.13	9.8	9.8	10.2	11.1	11.3	11.2	12.2	12.5	18.0	18.8	18.8	17.1	17.1
Restaurants and Hotels	6.19	27.5	28.2	27.9	26.4	25.2	26.0	33.4	36.1	36.6	35.9	32.1	33.0	31.6
Misc. Goods and Services	5.02	19.7	22.6	20.5	21.9	25.6	28.5	33.3	34.6	38.5	43.8	40.9	39.5	43.0

Urban CPI Inflation (MoM)	Weights	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23
General	100.00	2.6	-2.1	4.5	0.4	0.3	2.4	4.5	3.9	2.0	1.5	0.1	3.6	1.6
Food and Non-Alcoholic Beverages	30.42	1.5	5.4	4.8	-0.3	-0.3	4.1	4.2	4.5	4.0	1.4	-0.2	4.3	0.4
Alcoholic Beverages, Tobacco	0.85	3.4	6.8	1.3	1.6	0.2	0.1	13.0	55.6	0.3	0.5	0.0	0.4	0.3
Clothing and Footwear	8.01	3.4	0.1	1.0	1.3	0.7	0.6	1.3	5.8	1.1	0.4	1.1	0.6	1.2
Housing, Water, Elec., Gas and Other Fuels	27.03	5.2	-17.8	10.9	-0.1	-0.5	1.4	4.3	1.1	-1.1	0.7	-0.1	8.0	1.1
Furnishing and Household Equipment Maintenance	4.09	2.3	4.1	3.3	2.6	2.3	1.1	5.3	5.2	2.5	2.9	1.6	1.8	2.4
Health	2.31	1.6	1.0	1.7	1.6	1.1	3.4	3.2	0.4	1.9	0.6	0.7	2.9	2.1
Transport	6.14	-0.2	2.0	-2.2	-0.1	-0.7	-0.4	12.3	3.6	1.4	0.0	-2.2	0.0	6.1
Communication	2.35	0.0	0.1	0.6	0.0	0.1	0.0	2.8	3.7	0.2	0.6	0.1	0.6	0.0
Recreation and Culture	1.73	6.3	2.0	1.7	1.1	13.4	4.3	3.6	3.0	11.5	4.9	0.5	0.4	3.6
Education	4.88	0.7	0.0	1.1	0.2	0.2	0.1	0.1	1.3	0.8	0.8	0.2	0.0	3.6
Restaurants and Hotels	7.41	2.3	2.8	3.0	1.8	1.6	3.6	4.2	4.2	0.6	4.7	1.3	1.1	2.0
Misc. Goods and Services	4.77	3.4	3.9	1.4	1.7	2.4	3.1	4.7	2.6	4.2	3.9	1.2	1.1	3.5

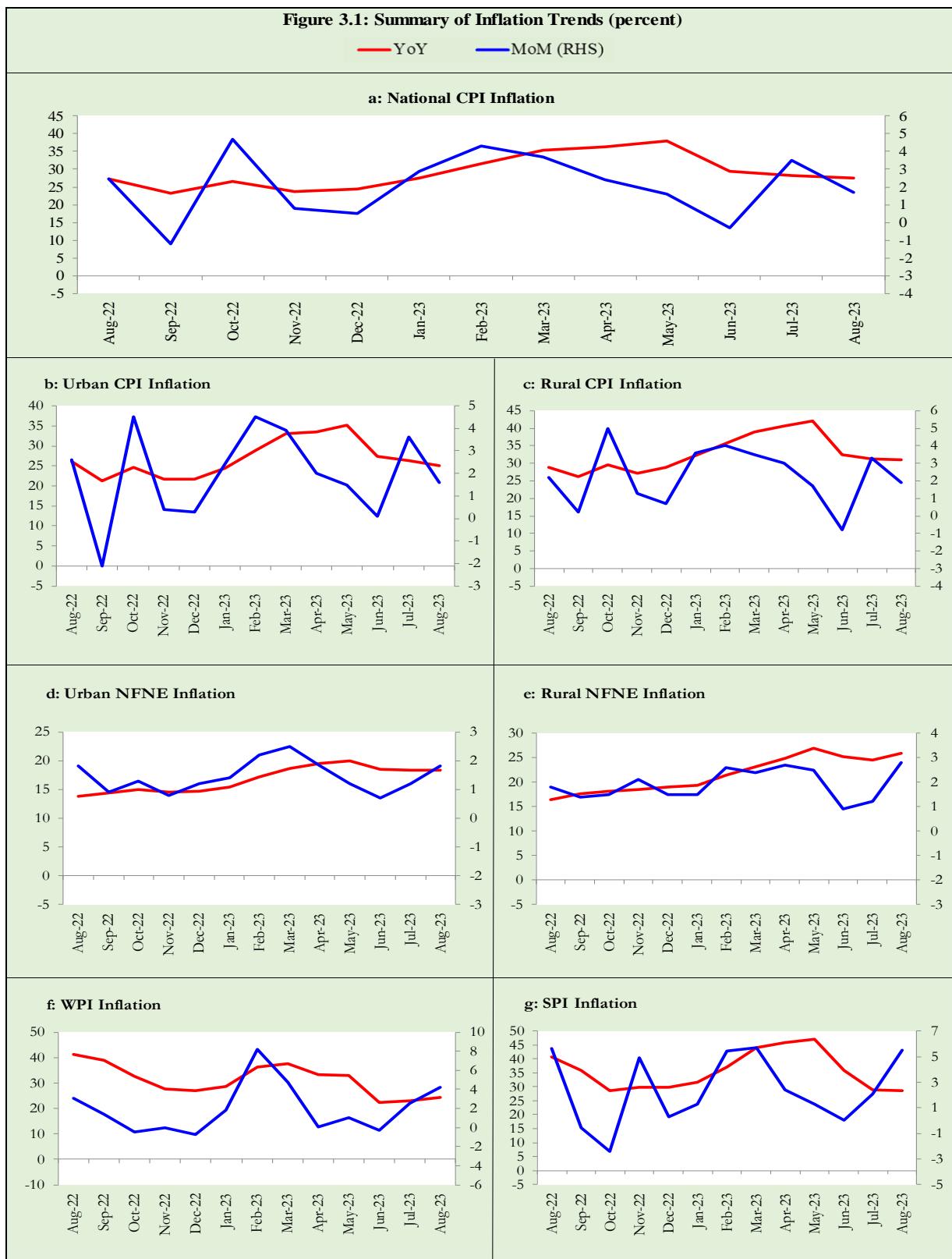
Rural CPI Inflation (MoM)		Weights	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23
General	100.00		2.2	0.2	5.0	1.3	0.7	3.6	4.0	3.5	3.0	1.7	-0.8	3.3	1.9
Food and Non-Alcoholic Beverages	40.87		1.2	6.2	6.6	0.4	0.0	6.0	3.9	2.9	4.7	1.1	-1.9	3.8	0.8
Alcoholic Beverages, Tobacco	1.28		1.9	4.8	2.5	0.6	0.9	0.4	5.9	67.5	0.3	0.8	0.2	0.4	0.5
Clothing and Footwear	9.48		2.0	0.5	1.0	3.2	0.8	0.4	1.0	4.7	2.8	2.6	1.1	0.6	1.2
Housing, Water, Elec., Gas and Other Fuels	18.49		6.0	-17.5	10.9	1.8	1.1	2.6	2.6	1.2	-1.3	0.6	-0.6	8.1	1.1
Furnishing and Household Equipment Maintenance	4.10		2.4	2.4	2.2	3.2	2.6	2.3	4.5	4.9	3.1	5.4	1.6	1.6	2.2
Health	3.51		0.8	3.4	3.9	2.3	2.8	0.4	1.1	0.2	0.4	1.3	1.5	1.5	2.0
Transport	5.56		-0.5	2.5	-1.3	0.0	-0.9	-0.5	11.6	2.7	2.0	0.6	-2.1	-0.6	11.0
Communication	1.99		0.2	0.1	0.0	0.1	0.0	0.1	0.7	1.3	0.1	0.0	0.0	0.1	0.8
Recreation and Culture	1.38		6.4	2.2	2.4	3.4	6.8	4.9	2.7	3.3	14.1	5.2	1.0	0.2	3.2
Education	2.13		2.8	0.0	0.5	0.8	0.4	0.2	1.7	1.4	5.9	1.5	0.8	0.0	2.8
Restaurants and Hotels	6.19		2.4	1.2	1.7	2.3	0.7	2.3	6.9	3.3	0.7	3.4	1.5	2.8	1.3
Misc. Goods and Services	5.02		1.9	3.7	0.2	3.2	3.9	3.3	4.6	2.4	3.9	5.2	0.8	0.9	4.4

Rural CPI Inflation (YoY)														
	Weights	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23
<b>Rural</b>	100.00	28.8	26.1	29.5	27.2	28.8	32.3	35.6	38.9	40.7	42.2	32.4	31.3	30.9
Food	45.95	30.2	32.7	37.2	33.5	37.9	45.2	47.0	50.2	52.2	52.4	41.5	41.3	40.6
<b>Non-perishable</b>	40.16	29.6	29.7	31.9	31.8	35.7	44.4	47.6	48.2	54.8	54.4	43.0	43.3	43.9
<b>Perishable</b>	5.79	34.3	52.6	74.2	43.8	59.5	64.3	53.1	54.5	31.9	35.3	24.0	22.2	15.2
Non Food	54.05	27.5	20.1	22.4	21.4	20.7	20.9	25.3	28.5	29.9	32.5	23.8	22.0	22.0
<b>Energy</b>	11.41	67.8	28.8	36.9	30.7	26.2	25.7	37.5	46.6	47.3	52.6	19.8	14.9	12.0
<b>NFNE (Core)</b>	42.64	16.5	17.6	18.2	18.5	19.0	19.4	21.5	23.1	24.9	26.9	25.2	24.6	25.9
HRI	8.61	5.9	5.9	5.9	5.9	5.9	6.9	6.9	6.9	7.1	7.1	7.1	7.5	7.5
Core Excl HRI	34.03	19.1	20.4	21.2	21.5	22.1	22.4	24.9	26.9	29.0	31.4	29.2	28.5	29.9

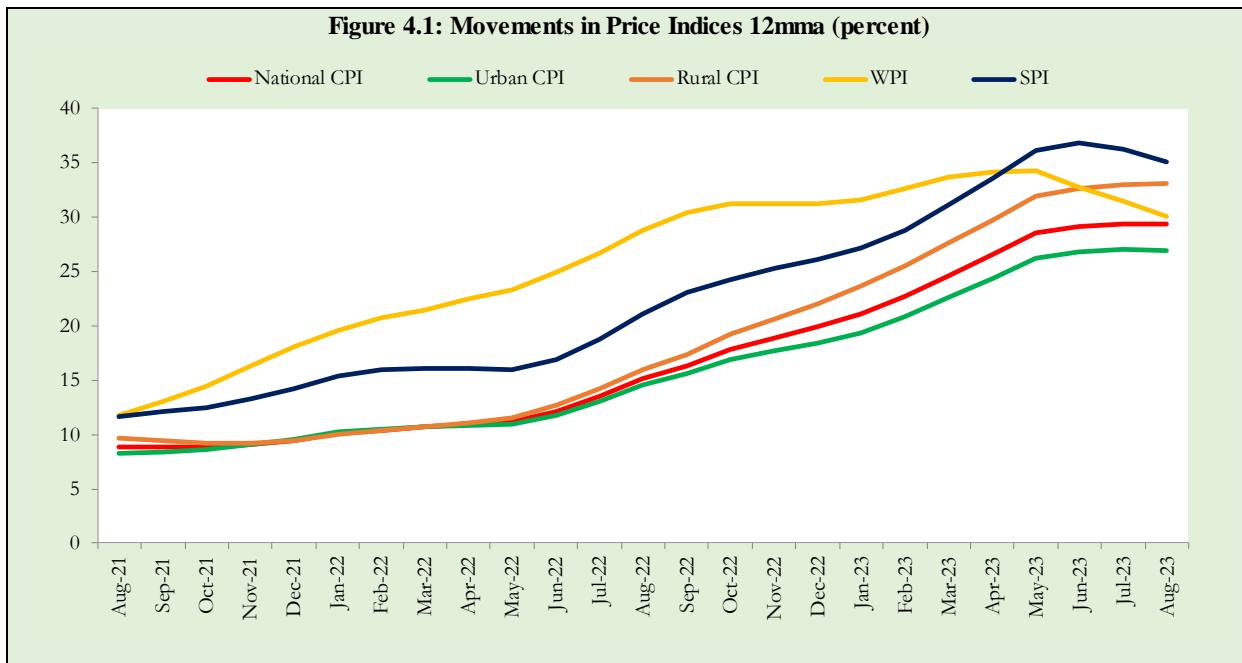
Urban CPI Inflation (YoY)														
	Weights	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23
<b>Urban</b>	100.00	26.2	21.2	24.6	21.6	21.6	24.4	28.8	33.0	33.5	35.1	27.3	26.3	25.0
Food	36.80	28.8	30.8	34.7	29.7	32.7	39.0	41.9	47.1	46.8	48.1	40.8	40.2	38.8
<b>Non-perishable</b>	32.34	28.2	27.9	29.4	27.1	29.6	36.7	42.0	44.9	48.5	47.9	40.7	41.1	41.8
<b>Perishable</b>	4.46	33.5	48.3	67.0	38.6	52.9	59.3	42.9	49.4	26.9	32.3	25.6	24.7	10.6
Non Food	63.20	24.7	15.2	18.2	16.4	14.8	15.6	20.8	24.1	24.9	26.6	18.7	17.3	16.3
<b>Energy</b>	9.47	80.7	18.9	34.1	24.5	15.4	16.3	37.1	50.3	52.1	61.2	19.4	13.7	9.4
<b>NFNE (Core)</b>	53.73	13.8	14.4	14.9	14.6	14.7	15.4	17.1	18.6	19.5	20.0	18.5	18.4	18.4
HRI	19.26	5.6	5.6	5.3	5.3	5.3	5.4	5.4	5.4	5.3	5.3	5.3	5.3	5.3
Core Excl HRI	34.47	18.2	19.2	20.1	19.6	19.7	20.8	23.3	25.4	26.8	27.5	25.0	25.0	24.8



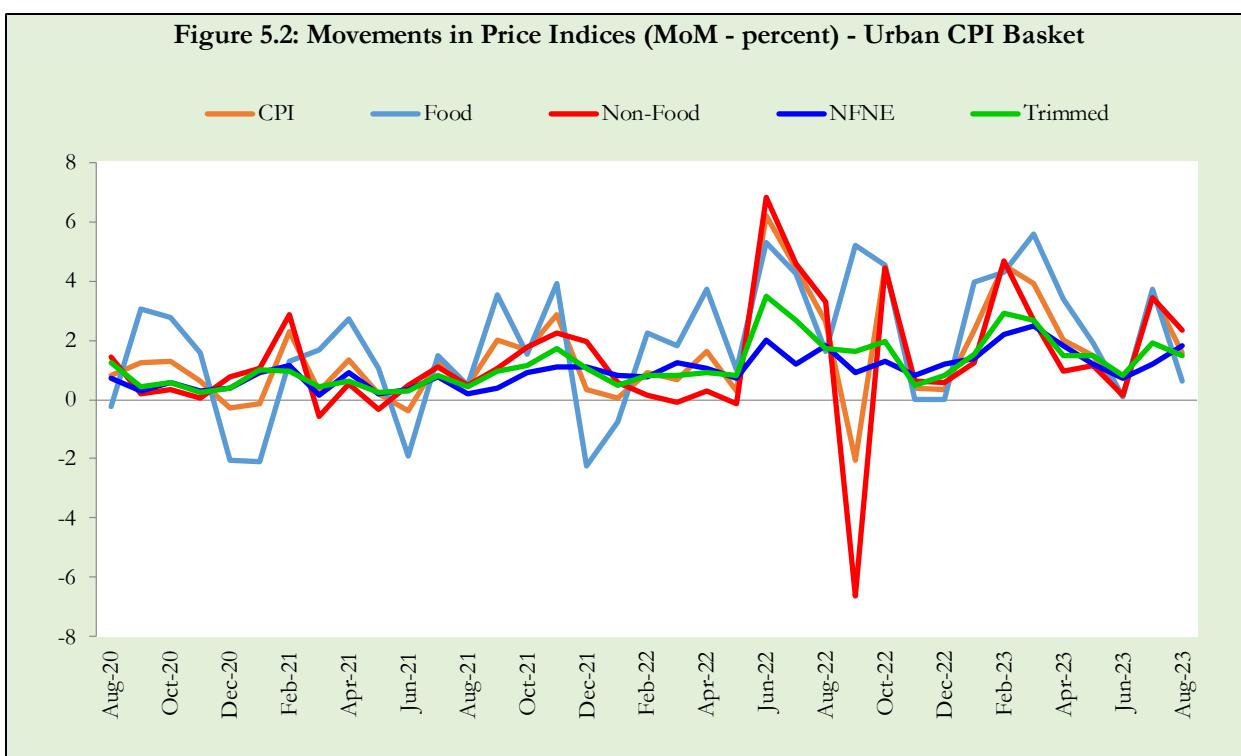
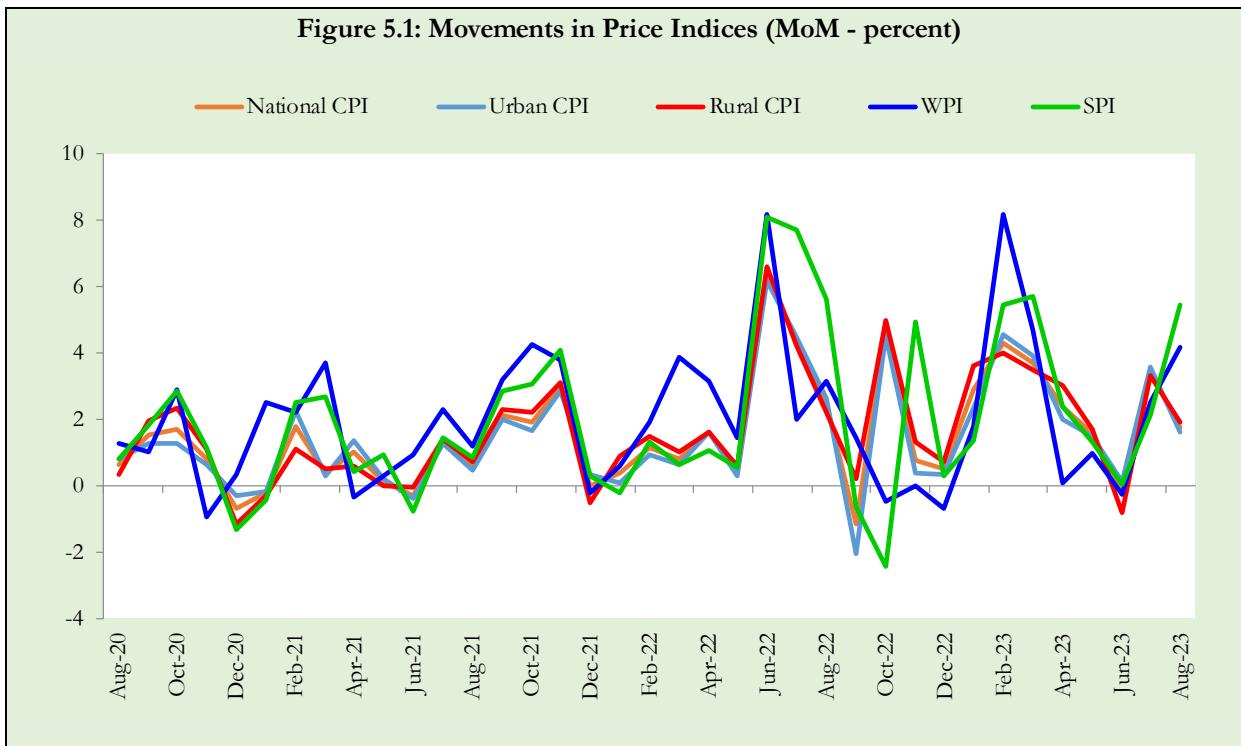
### 3. Inflation Trends

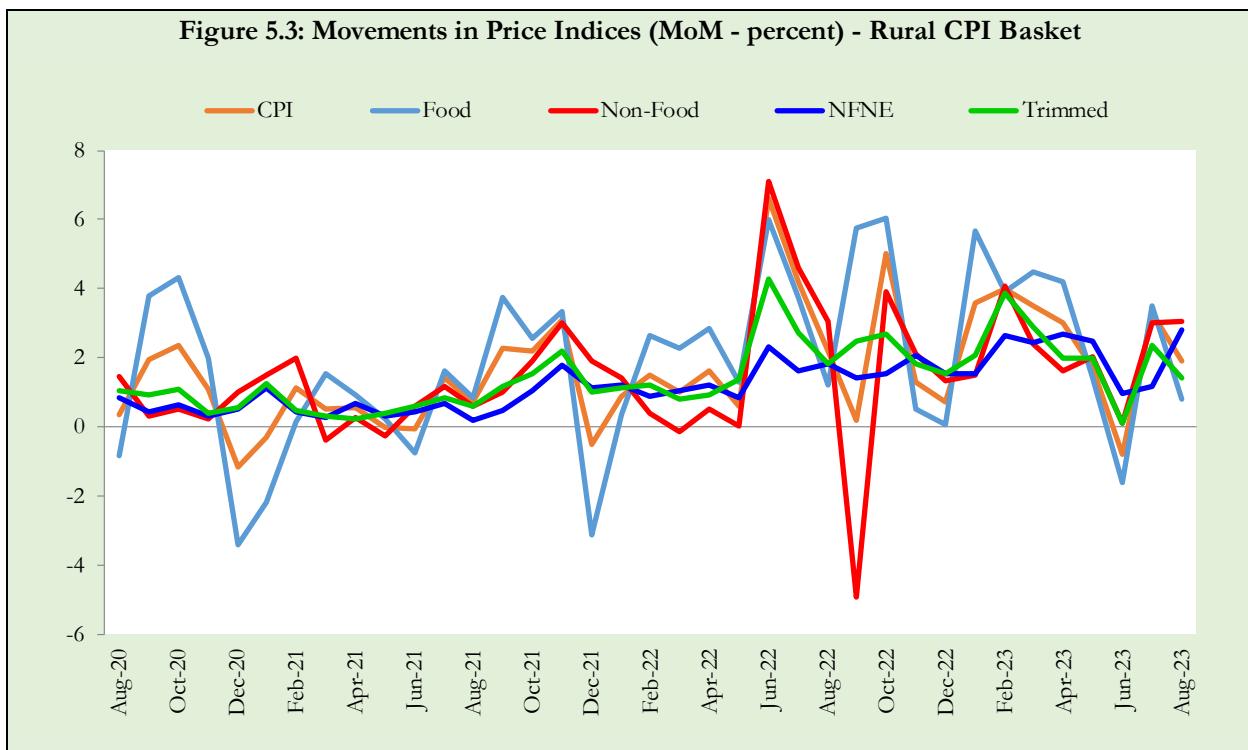


#### 4. Movements in Price Indices (Moving Averages)



## 5. Movements in Price Indices (MoM)

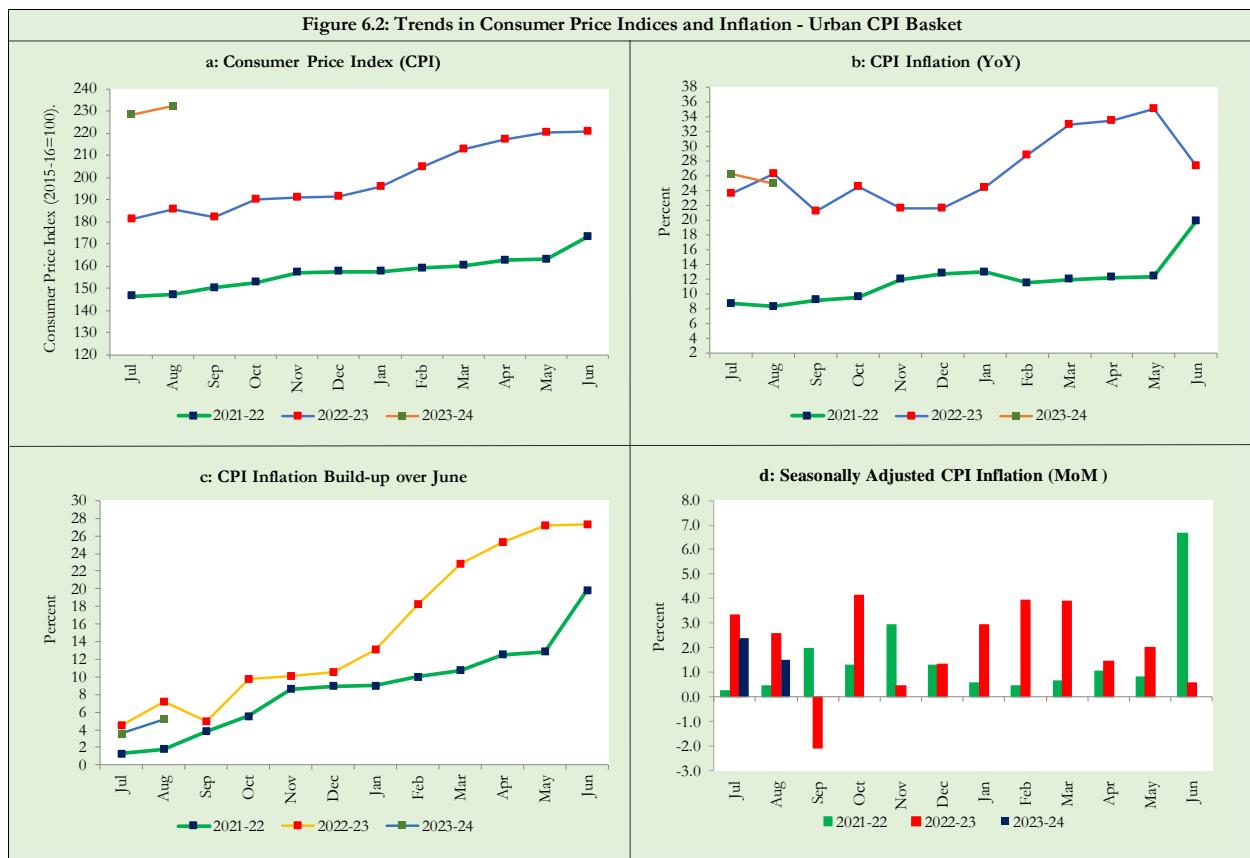


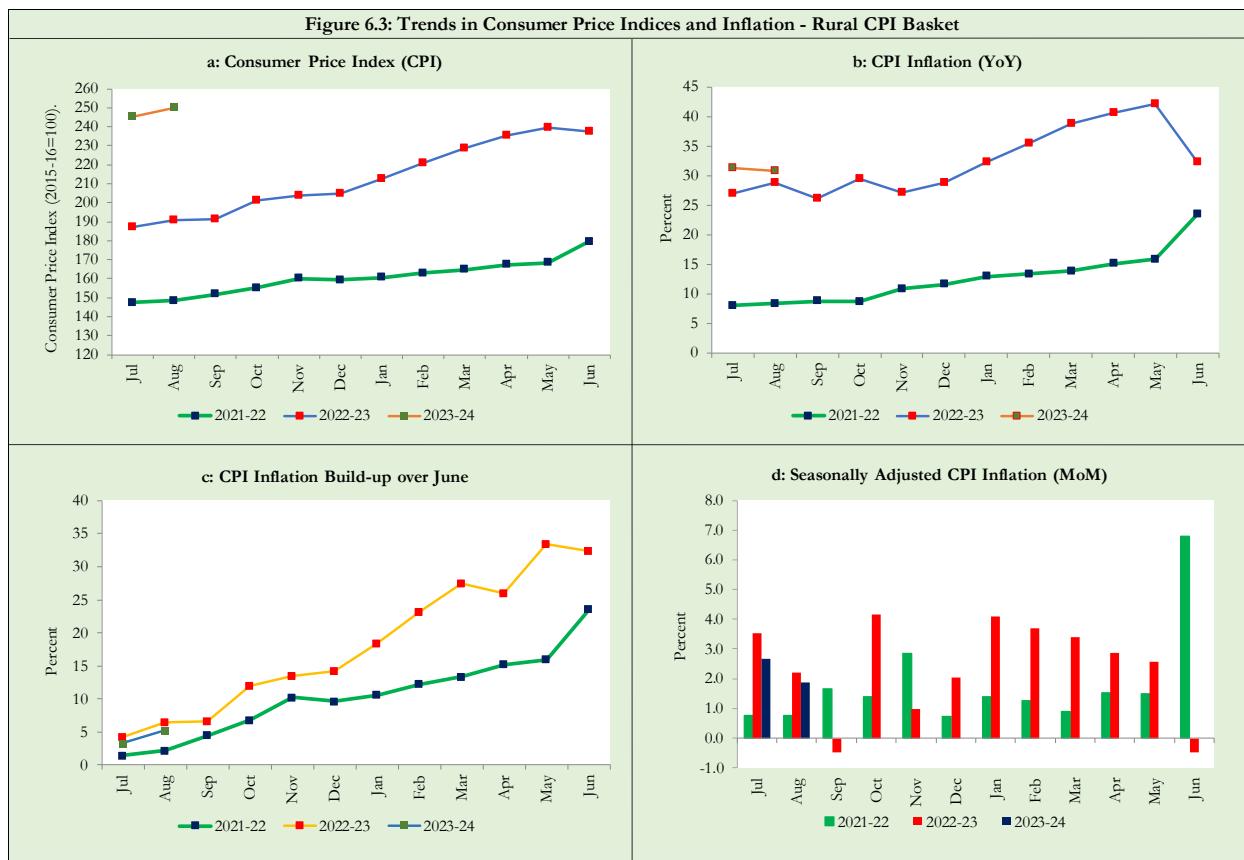


## 6. Consumer Price Indices and Inflation

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







## 7. Weighted Contribution

The weighted contribution in the overall Urban CPI Inflation of

- Food group increased to 60.0 percent during August 2023 from 59.7 percent in previous month. It was 41.6 percent during the corresponding month of last year.
- Non-food group decreased to 40.0 percent in August 2023 from 40.3 percent in previous month. It was 58.4 percent during the corresponding month of last year (**Table 7.1**).

**Table 7.1: Weighted Contributions (percent) in Urban CPI Inflation (YoY)**

Period	CPI	Food Group			Non-food Group				HRI	NFNE excl HRI
		Overall	Perishable	Non-Perishable	Overall	Energy	Core Inflation (NFNE)			
		a=(b+e)	b=(c+d)	c	d	e=(f+g)	f	g=(h+i)	h	i
Aug-22	100.0	41.6	5.6	36.0	58.4	31.0	27.3	3.9	23.4	
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	

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

The weighted contribution in the overall Rural CPI Inflation of

- Food group decreased to 62.9 percent during August 2023 from 63.7 percent in previous month. It was 49.6 percent during the corresponding month of last year.
- Non-food group increased to 37.1 percent in August 2023 from 36.3 percent in previous month. It was 50.4 percent during corresponding month of last year (**Table 7.2**).

<b>Table 7.2: Weighted Contributions (percent) in Rural CPI Inflation (YoY)</b>										
Period	CPI	Food Group			Non-food Group				HRI	NFNE excl HRI
		Overall	Perishable	Non-Perishable	Overall	Energy	Core Inflation (NFNE)			
		a=(b+c)	b=(c+d)	c	d	e=(f+g)	f	g=(h+i)	h	i
Aug-22	100.0	49.6	6.8	42.9	50.4	26.7	23.7	1.7	22.0	
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	

Note: The weighted contribution of sub-indexes may not exactly tally with overall CPI indices 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 for Urban CPI Basket based on MoM Changes													
Groups	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23
<b>General</b>	<b>70.8</b>	<b>62.4</b>	<b>66.3</b>	<b>54.5</b>	<b>56.7</b>	<b>68.8</b>	<b>78.9</b>	<b>73.6</b>	<b>64.9</b>	<b>65.2</b>	<b>55.9</b>	<b>64.0</b>	<b>72.2</b>
Food & Non-Alcoholic Beverages	54.4	56.7	43.3	18.9	26.7	55.6	68.9	66.7	50.0	44.4	24.4	55.6	41.1
Alcoholic Beverages & Tobacco	100.0	100.0	100.0	100.0	100.0	33.3	100.0	100.0	100.0	100.0	33.3	66.7	100.0
Clothing & Footwear	70.0	62.5	72.5	75.0	77.5	77.5	67.5	72.5	70.0	70.0	72.5	72.5	80.0
Housing, Water, Elec, Gas & other Fuels	58.6	3.4	51.7	24.1	10.3	58.6	75.9	48.3	10.3	44.8	51.7	65.5	75.9
Furnishing & Household Equip. Maintenance etc.	95.2	97.6	100.0	100.0	95.2	100.0	100.0	100.0	100.0	100.0	95.2	100.0	100.0
Health	77.4	87.1	80.6	83.9	71.0	80.6	87.1	77.4	67.7	74.2	67.7	74.2	87.1
Transport	50.0	37.5	46.9	34.4	25.0	34.4	90.6	81.3	59.4	37.5	46.9	43.8	62.5
Communication	20.0	40.0	40.0	20.0	40.0	20.0	40.0	40.0	20.0	40.0	40.0	40.0	40.0
Recreation & Culture	80.0	72.0	80.0	24.0	72.0	84.0	80.0	56.0	72.0	64.0	32.0	32.0	76.0
Education	75.0	12.5	37.5	50.0	56.3	31.3	31.3	62.5	56.3	62.5	56.3	12.5	68.8
Restaurant & Hotels	100.0	92.9	100.0	100.0	100.0	85.7	92.9	92.9	92.9	100.0	92.9	85.7	92.9
Miscellaneous	96.6	93.1	89.7	100.0	96.6	100.0	100.0	86.2	100.0	100.0	82.8	86.2	100.0
NFNE	77.4	67.2	76.6	71.5	72.3	76.6	82.6	77.0	75.7	74.5	68.9	67.2	83.8

Table 8.1 (b): Inflation Diffusion Index of Rural CPI Basket based on MoM Changes													
Group	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23
<b>General</b>	<b>72.5</b>	<b>67.2</b>	<b>68.0</b>	<b>54.5</b>	<b>48.8</b>	<b>67.6</b>	<b>77.9</b>	<b>72.5</b>	<b>63.1</b>	<b>63.1</b>	<b>54.1</b>	<b>62.3</b>	<b>68.4</b>
Food & Non-Alcoholic Beverages	53.2	62.0	55.7	13.9	12.7	57.0	62.0	53.2	39.2	43.0	19.0	43.0	35.4
Alcoholic Beverages & Tobacco	100.0	100.0	60.0	100.0	80.0	80.0	100.0	100.0	100.0	40.0	40.0	60.0	80.0
Clothing & Footwear	88.9	66.7	81.5	96.3	85.2	81.5	96.3	92.6	92.6	92.6	92.6	85.2	85.2
Housing, Water, Elec, Gas & other Fuels	78.3	30.4	56.5	34.8	0.0	82.6	56.5	69.6	21.7	47.8	65.2	73.9	95.7
Furnishing & Household Equip. Maintenance etc	100.0	88.5	100.0	100.0	96.2	96.2	100.0	100.0	88.5	92.3	92.3	96.2	100.0
Health	71.4	92.9	64.3	100.0	78.6	35.7	85.7	64.3	71.4	64.3	64.3	57.1	57.1
Transport	43.8	68.8	31.3	18.8	25.0	12.5	81.3	81.3	62.5	37.5	37.5	62.5	75.0
Communication	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	40.0
Recreation & Culture	84.6	69.2	84.6	46.2	84.6	76.9	92.3	69.2	84.6	84.6	38.5	38.5	69.2
Education	80.0	0.0	100.0	80.0	80.0	80.0	80.0	80.0	100.0	80.0	60.0	0.0	100.0
Restaurant & Hotels	92.9	85.7	85.7	85.7	71.4	85.7	85.7	85.7	78.6	71.4	85.7	85.7	78.6
Miscellaneous	94.1	94.1	88.2	100.0	94.1	94.1	100.0	88.2	100.0	100.0	88.2	82.4	100.0
NFNE	80.9	72.1	76.5	80.9	74.3	72.8	86.8	80.9	81.6	77.2	74.3	69.9	83.8

## 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: Growth in Domestic Food Commodity Prices (percent) - July, 2023**

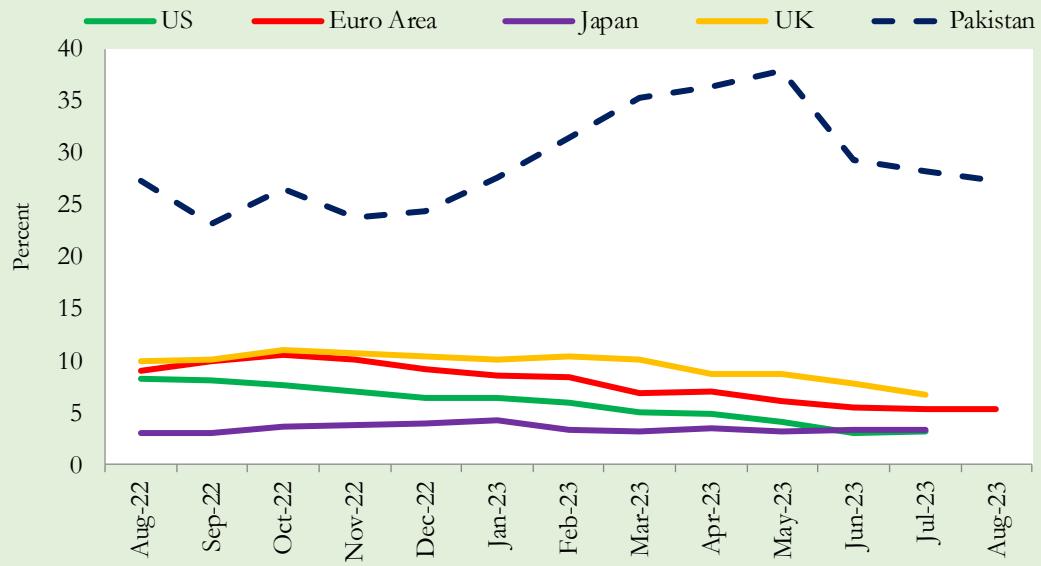
S. No	Item	Unit	Urban CPI		Rural CPI	
			YoY	MoM	YoY	MoM
1	Wheat	10 Kg	64.2	-0.2	67.9	0.7
2	Wheat Flour Bag	20 Kg	126.2	-1.1	103.6	0.6
3	Rice Basmati Broken (Superior/Average Quality)*	1 Kg	38.6	0.7	77.2	2.7
4	Beef With Bone (Average Quality)	1 Kg	18.9	1.5	18.2	1.1
5	Mutton (Average Quality)	1 Kg	18.4	1.3	20.5	0.9
6	Chicken Farm Broiler (Live)	1 Kg	67.6	-6.3	65.1	-6.3
7	Milk Fresh (Un-Boiled)	1 Liter	28.6	1.5	34.8	1.4
8	Eggs Farm	Dozen	37.8	16.3	39.3	18.2
9	Vegetable Ghee Dalda/Habib Or Other Superior Quality 1 Kg Pouch	Each	-3.0	-3.4	-3.2	-2.9
10	Pulse Masoor (Washed)	1 Kg	-16.3	1.4	-16.7	1.1
11	Pulse Moong (Washed)	1 Kg	27.6	2.3	25.3	1.8
12	Pulse Mash (Washed)	1 Kg	32.4	5.6	35.5	5.5
13	Pulse Gram	1 Kg	2.3	2.2	3.1	0.6
14	Potatoes	1 Kg	60.8	4.5	56.8	4.5
15	Onions	1 Kg	-31.5	-4.7	-36.0	2.2
16	Tomatoes	1 Kg	23.2	75.3	39.6	82.6
17	Sugar Refined	1 Kg	70.6	9.0	70.9	8.9
18	Garlic (Lehsun)	1 Kg	18.7	15.8	22.7	17.5
19	Ginger (Adrak)	500 Gm	171.8	-0.6	188.0	7.6
20	Tea Lipton Yellow Label 190 Gm Packet	Each	94.5	0.0	98.5	0.0

\* Superior quality for Urban CPI Basket and average quality for Rural CPI Basket

## 10. Inflation in Global Context

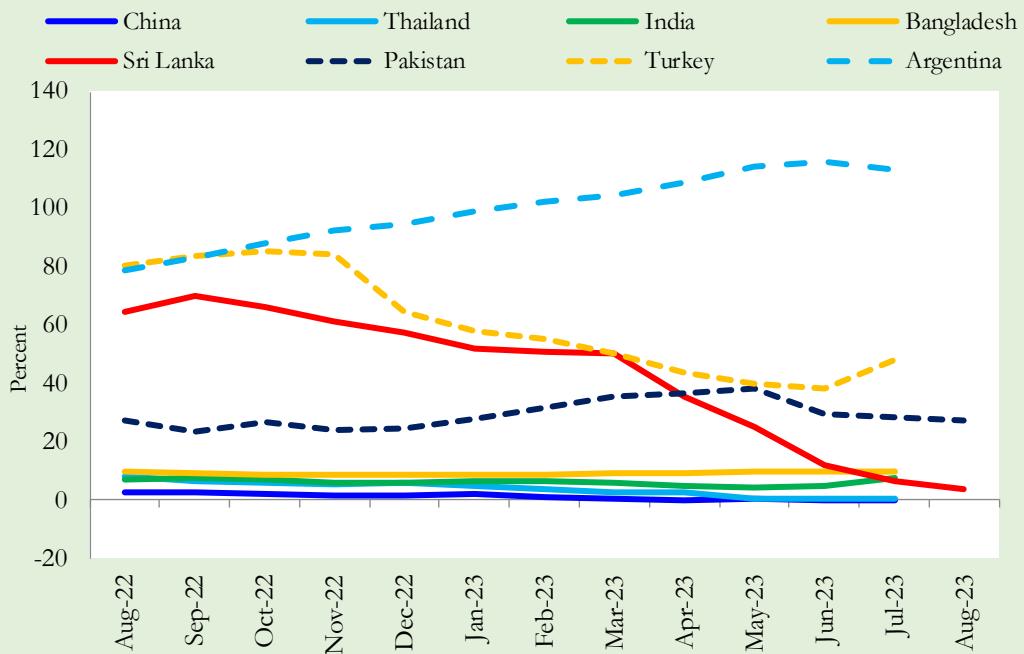
Inflation trends in selected developed and emerging economies is given in **Figures 10.1 & 10.2**.

**Figure 10.1: Domestic Inflation in comparison with Developed Economies**



Sources: Bloomberg, Havor Analytics, Trading Economics

**Figure 10.2: Pakistan Inflation in comparison with Emerging Economies**



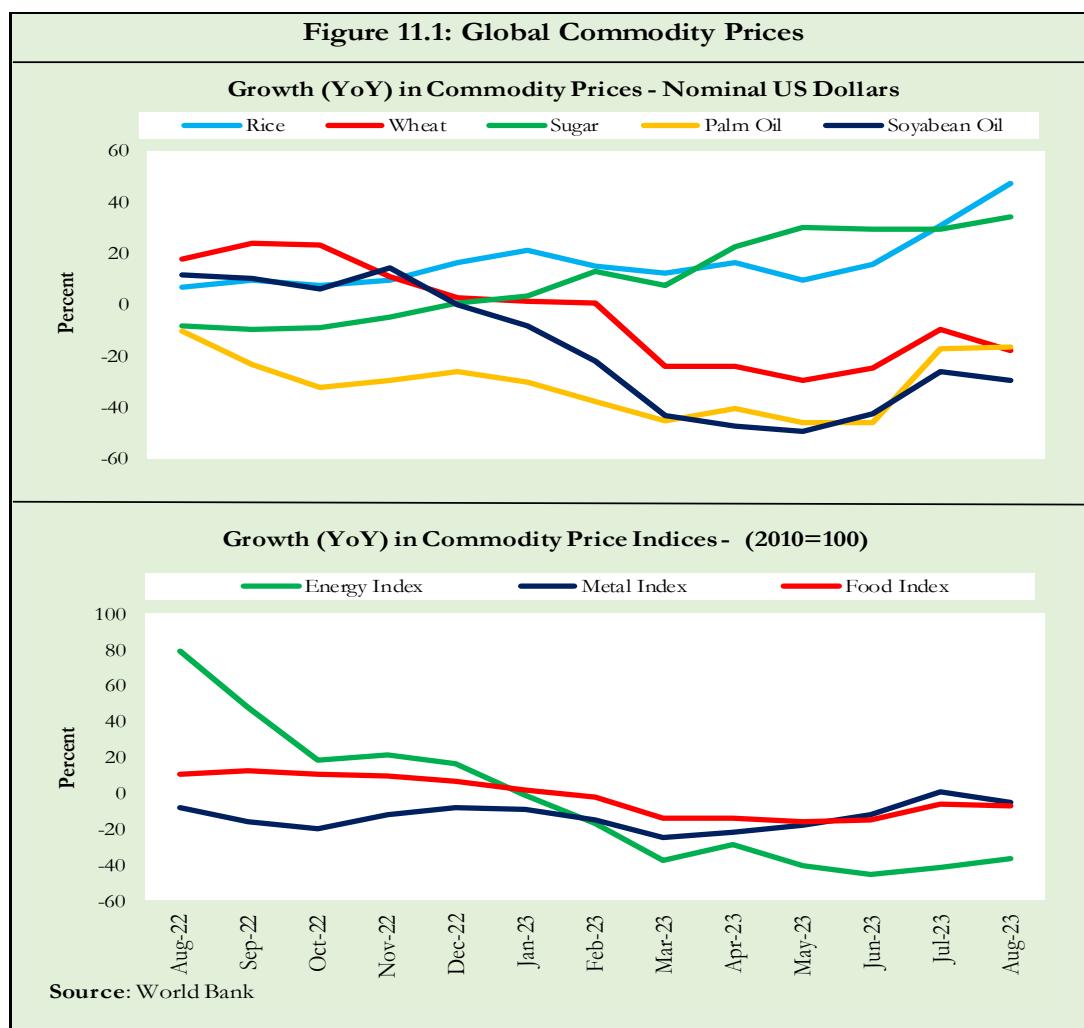
Sources: Bloomberg, Havor Analytics, Trading Economics

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

Global commodity prices and various group indices have a relation with 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**.

Item/Group	Aug-22		Jul-23		Aug-23	
	YoY	MoM	YoY	MoM	YoY	MoM
Food	11.0	-1.6	-6.5	0.9	-7.1	-2.2
Metals	-8.5	4.2	0.8	0.3	-4.8	-1.6
Energy	79.4	0.6	-41.3	6.0	-37.1	7.8
Agricultural	8.1	-0.8	-5.5	-0.1	-6.2	-1.5
Cotton	22.8	-5.0	-28.9	0.8	-22.9	3.0

Data Source: World Bank

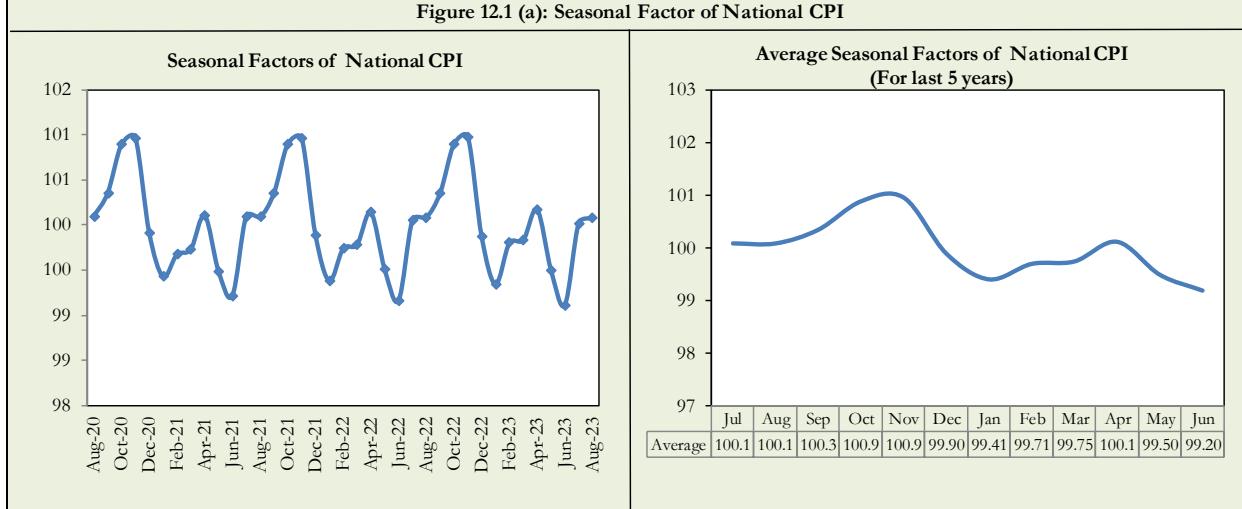
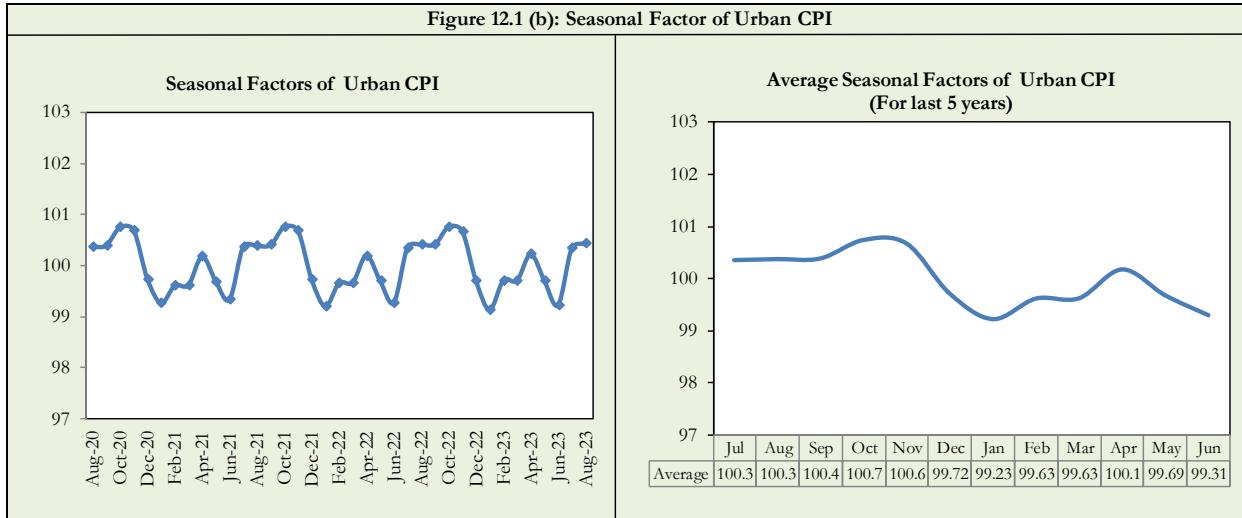
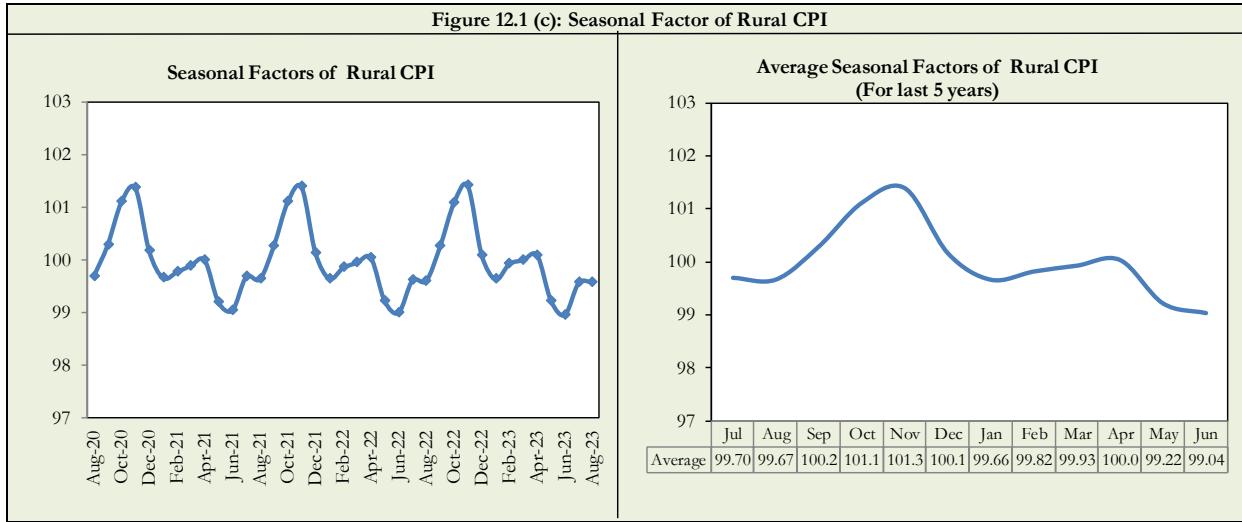


## 12. Seasonal Adjustment in CPI

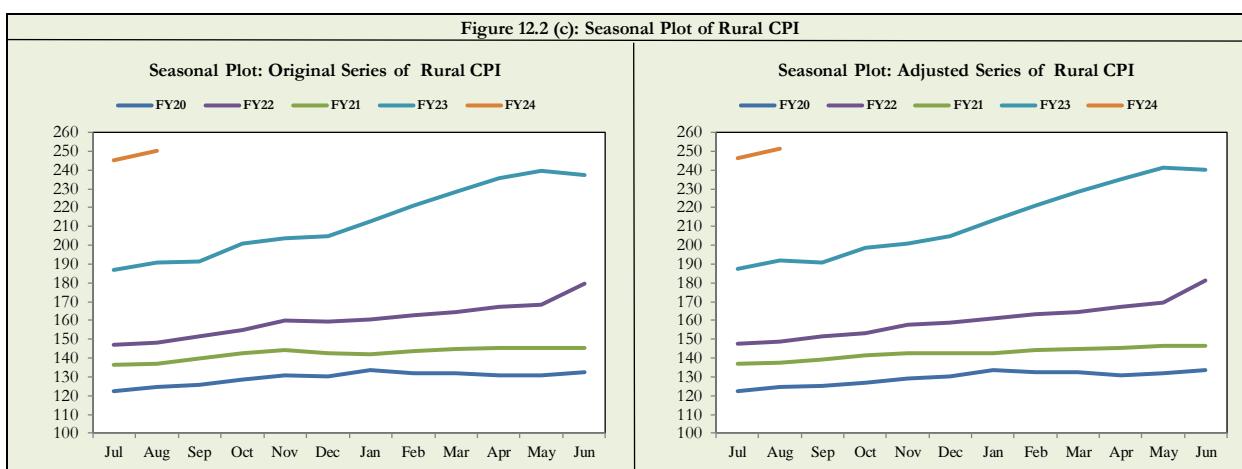
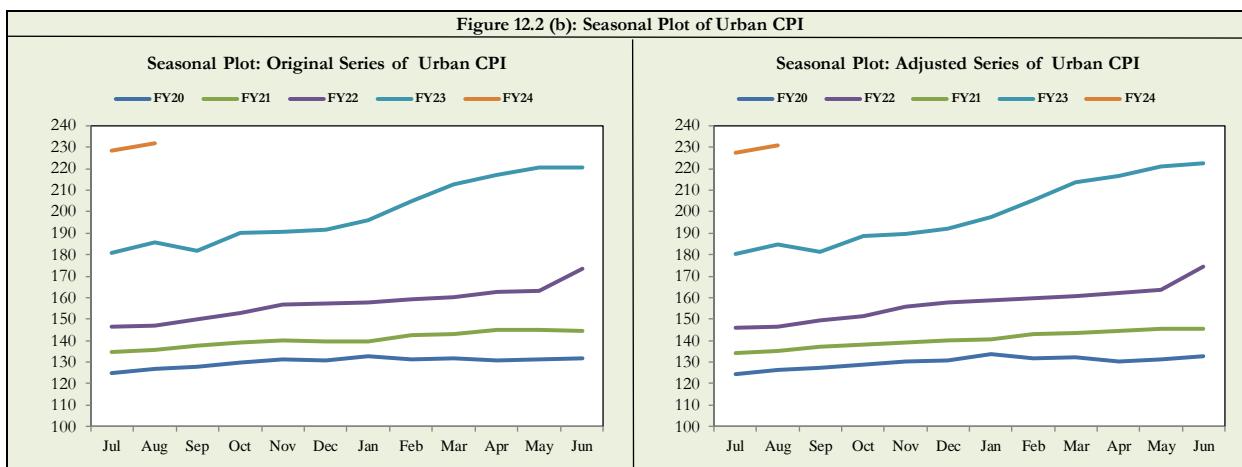
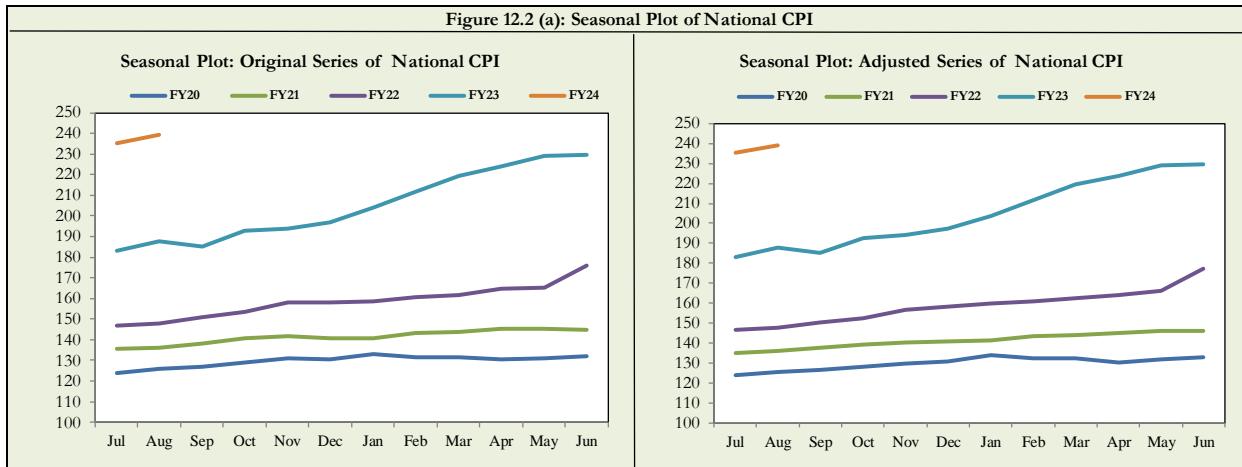
Seasonal adjustment is the process of removing seasonality effects in a time series data through decomposing it into seasonal, trend, cycle and irregular components. The purpose is to get clear picture of price movements. Various statistical methods are available to decompose a time series into its constituent 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 year-on-year and month-on-month basis. Seasonal adjustment is particularly useful for analyzing month-on-month changes. The monthly data series of Consumer Price Indices from July 2008 to August 2023 has been used for seasonal adjustment analysis.

**Figure 12.1(a to c)** shows 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 July - December while downward seasonality in the remaining months of the year.

**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**

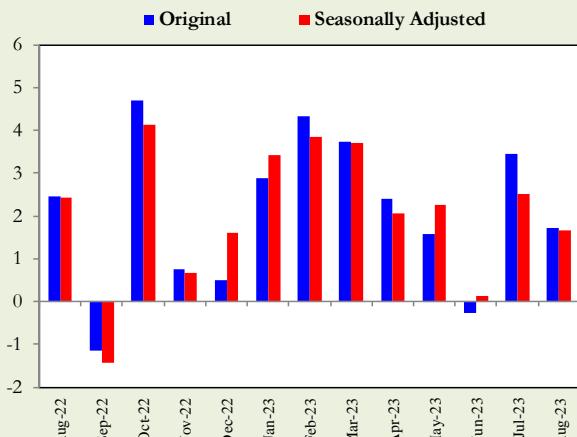
**Figures 12.2(a to c)** shows that seasonally adjusted series. The trend follows the long-term movement in original series.



### Seasonally adjusted Index of

- National CPI for August 2023 stood at 239.09 against 239.27 in original series showing a decrease of 0.18.
- Urban CPI for August 2023 stood at 231.13 against 232.12 in original series showing a decrease of 0.99.
- Rural CPI for August 2023 stood at 251.09 against 250.06 in original series showing an increase of 1.03.

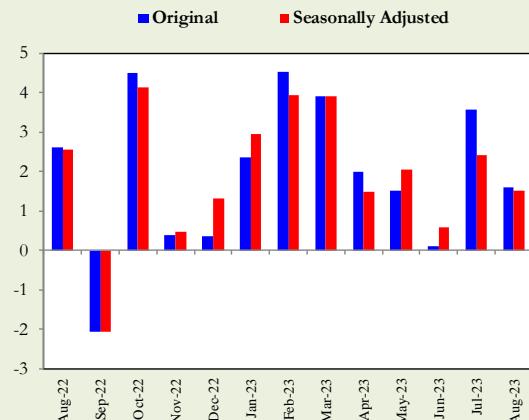
**Figure 12.3 (a): MoM Changes in National CPI**



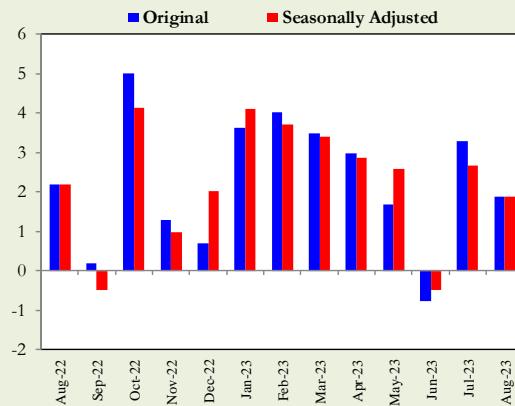
### Month-on-month change of seasonally adjusted

- National CPI series showed an inflation of 1.66% during August 2023 over the previous month against an inflation of 1.72% in original series.
- Urban CPI series showed an inflation of 1.51% during August 2023 over the previous month against an inflation of 1.60% in original series.
- Rural CPI series showed an inflation of 1.87% during August 2023 over the previous month against an inflation of 1.88% in original series.

**Figure 12.3 (b): MoM % Changes in Urban CPI**



**Figure 12.3 (c): MoM % Changes in Rural CPI**



## List of Illustrations

### Tables

**Table A1: Inflation – Summary**

Period	CPI							WPI			SPI**	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>																
Aug-22	27.3	26.2	28.8	28.8	30.2	24.7	27.5	41.2	26.4	49.6	40.6	13.8	16.5	21.4	23.8	
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	
<b>12-Month Moving Average</b>																
Aug-22	15.1	14.6	15.9	16.5	16.6	13.4	15.3	28.8	15.5	36.6	21.1	9.2	10.5	12.4	13.9	
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	
<b>Period Average (Since July)</b>																
Aug-22	26.1	24.9	27.9	28.1	29.9	23.0	26.0	39.9	25.3	48.1	37.5	12.9	15.6	20.5	23.2	
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	
<b>Month-on-Month</b>																
Aug-22	2.4	2.6	2.2	1.6	1.2	3.3	3.1	3.1	2.2	3.6	5.6	1.8	1.8	1.7	1.8	
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	

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

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

Groups	Weights	MoM Change			YoY Change		
		Aug-22	Jul-23	Aug-23	Aug-22	Jul-23	Aug-23
Food and Non-Alcoholic Beverages	34.6	1.3	4.1	0.6	29.5	39.5	38.5
Alcoholic Beverages, Tobacco	1.0	2.7	0.4	0.4	25.8	102.1	97.5
Clothing and Footwear	8.6	2.8	0.6	1.2	17.6	20.4	18.5
Housing, Water, Elec., Gas and Other Fuels	23.6	5.5	8.0	1.1	27.6	10.8	6.3
Furnishing and Household Equip. Maintenance	4.1	2.3	1.7	2.3	21.9	41.7	41.7
Health	2.8	1.2	2.2	2.0	11.9	21.5	22.6
Transport	5.9	-0.3	-0.2	7.9	63.1	13.6	23.0
Communication	2.2	0.1	0.4	0.3	1.2	6.8	7.0
Recreation and Culture	1.6	6.3	0.3	3.5	21.8	65.9	61.4
Education	3.8	1.1	0.0	3.4	10.0	8.0	10.5
Restaurants and Hotels	6.9	2.3	1.7	1.8	27.4	34.7	34.1
Miscellaneous	4.9	2.7	1.0	3.9	20.0	39.3	40.8
<b>National CPI</b>	<b>100.0</b>	<b>2.4</b>	<b>3.5</b>	<b>1.7</b>	<b>27.3</b>	<b>28.3</b>	<b>27.4</b>

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

Groups	Weights	MoM Change			YoY Change		
		Aug-22	Jul-23	Aug-23	Aug-22	Jul-23	Aug-23
<b>I. Food Group</b>	<b>36.8</b>	<b>1.6</b>	<b>3.7</b>	<b>0.6</b>	<b>28.8</b>	<b>40.2</b>	<b>38.8</b>
Food and Non-Alcoholic Beverages	30.4	1.5	4.3	0.4	28.9	38.7	37.2
Alcoholic Beverages, Tobacco	0.9	3.4	0.4	0.3	25.8	102.6	96.5
Restaurants and Hotels (Food Component)	5.5	2.4	1.2	2.1	28.7	38.8	38.4
<b>II. Non-Food Group</b>	<b>63.2</b>	<b>3.3</b>	<b>3.5</b>	<b>2.4</b>	<b>24.7</b>	<b>17.3</b>	<b>16.3</b>
Clothing and Footwear	8.0	3.4	0.6	1.2	18.8	18.6	16.0
Housing, Water, Elec., Gas and Other Fuels	27.0	5.2	8.0	1.1	24.8	9.6	5.3
Furnishing and Household Equip. Maintenance	4.1	2.3	1.8	2.4	20.3	41.1	41.4
Health	2.3	1.6	2.9	2.1	11.8	21.9	22.5
Transport	6.1	-0.2	0.0	6.1	62.4	13.6	20.7
Communication	2.4	0.0	0.6	0.0	1.2	9.0	8.9
Recreation and Culture	1.7	6.3	0.4	3.6	20.4	65.8	61.7
Education	4.9	0.7	0.0	3.6	10.1	5.6	8.7
Restaurants and Hotels (Non-Food Component)	1.9	2.0	0.6	1.9	23.3	26.0	25.9
Miscellaneous	4.8	3.4	1.1	3.5	20.1	39.1	39.3
<b>Urban CPI</b>	<b>100.0</b>	<b>2.6</b>	<b>3.6</b>	<b>1.6</b>	<b>26.2</b>	<b>26.3</b>	<b>25.0</b>

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

Groups	Weights	MoM Change			YoY Change		
		Aug-22	Jul-23	Aug-23	Aug-22	Jul-23	Aug-23
<b>I. Food Group</b>	<b>45.9</b>	<b>1.2</b>	<b>3.5</b>	<b>0.8</b>	<b>30.2</b>	<b>41.3</b>	<b>40.6</b>
Food and Non-Alcoholic Beverages	40.9	1.2	3.8	0.8	30.2	40.5	39.9
Alcoholic Beverages, Tobacco	1.3	1.9	0.4	0.5	25.8	101.5	98.6
Restaurants and Hotels (Food Component)	3.8	2.1	1.9	1.2	31.0	33.0	31.8
<b>II. Non-Food Group</b>	<b>54.1</b>	<b>3.1</b>	<b>3.0</b>	<b>3.1</b>	<b>27.5</b>	<b>22.0</b>	<b>22.0</b>
Clothing and Footwear	9.5	2.0	0.6	1.2	16.2	22.5	21.5
Housing, Water, Elec., Gas and Other Fuels	18.5	6.0	8.1	1.1	33.9	13.5	8.3
Furnishing and Household Equip. Maintenance	4.1	2.4	1.6	2.2	24.2	42.6	42.2
Health	3.5	0.8	1.5	2.0	12.0	21.2	22.6
Transport	5.6	-0.5	-0.6	11.0	64.2	13.6	26.8
Communication	2.0	0.2	0.1	0.8	1.4	2.8	3.4
Recreation and Culture	1.4	6.4	0.2	3.2	24.3	65.9	60.9
Education	2.1	2.8	0.0	2.8	9.8	17.1	17.1
Restaurants and Hotels (Non-Food Component)	2.4	2.9	4.9	1.6	20.5	33.0	31.3
Miscellaneous	5.0	1.9	0.9	4.4	19.7	39.5	43.0
<b>Rural CPI</b>	<b>100.0</b>	<b>2.2</b>	<b>3.3</b>	<b>1.9</b>	<b>28.8</b>	<b>31.3</b>	<b>30.9</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	Health	Furnishing and Household Environment	Housing, Water, Elec., Gas and Other Fuels	Transport	Communication	Education	Recreation and Culture	Misc. Goods and Services	
<b>Year-on-Year</b>															
Aug-22	27.3	29.5	28.9	33.9	25.8	17.6	27.6	21.9	11.9	63.1	1.2	21.8	10.0	27.4	20.0
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
<b>12-Month Moving Average</b>															
Aug-22	15.1	16.8	17.2	14.3	7.9	11.6	13.5	14.5	9.9	33.4	2.2	10.8	6.0	15.6	12.4
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	79.4	19.3	11.3	35.6	18.6	40.6	4.4	49.8	9.6	33.9	33.1	
<b>Period Average (Since August)</b>															
Aug-22	26.1	29.1	28.5	33.4	24.1	16.1	24.7	20.8	11.6	63.9	1.2	18.6	9.9	26.2	18.6
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
<b>Month-on-Month</b>															
Aug-22	2.4	1.3	1.0	3.3	2.7	2.8	5.5	2.3	1.2	-0.3	0.1	6.3	1.1	2.3	2.7
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
<b>3-Year Average (in current month during FY22-FY24)</b>															
YoY	21.0	26.0	27.6	16.6	41.8	15.1	13.9	24.4	14.3	31.4	3.7	29.8	7.8	22.9	22.2
MoM	1.6	0.9	1.0	0.0	1.0	1.4	2.4	1.7	1.2	2.8	0.1	3.5	1.8	1.5	2.3

Source: Pakistan Bureau of Statistics

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	Furnishing and Household Equipment	Housing, Water, Elec., Gas and Other Fuels	Health	Transport	Communication	Education	Recreation and Culture	Restaurants and Hotels	Misc. Goods and Services
<b>Year-on-Year</b>															
Aug-22	26.2	28.9	28.2	33.5	25.8	18.8	24.8	20.3	11.8	62.4	1.2	20.4	10.1	27.4	20.1
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
<b>12- Month Moving Average</b>															
Aug-22	14.6	16.8	17.3	13.6	7.9	11.9	12.0	13.5	10.1	33.6	2.8	10.2	6.2	15.7	12.2
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
<b>Period Average (Since July)</b>															
Aug-22	24.9	28.3	27.6	33.0	23.7	16.9	22.0	19.2	11.3	63.1	1.2	17.1	10.3	26.1	18.5
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
<b>Month-on-Month</b>															
Aug-22	2.6	1.5	1.3	2.8	3.4	3.4	5.2	2.3	1.6	-0.2	0.0	6.3	0.7	2.3	3.4
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
<b>3-Years Average (in current month during FY22-FY24)</b>															
YoY	19.8	25.6	27.4	15.2	41.7	15.1	12.4	23.7	14.5	30.6	4.6	29.2	7.1	23.5	21.9
MoM	1.6	0.8	1.1	-1.4	1.2	1.6	2.3	1.7	1.4	2.2	0.0	3.5	1.8	1.5	2.4

Source: Pakistan Bureau of Statistics

Table A7: Rural CPI Inflation by Groups

Period	General	Food and Non-Alcoholic Beverages	Non-Perishable Food Items	Perishable Food Items	Year-on-Year											
					Furnishing and Household Environment	Housing, Water, Elec., Gas and Other Fuels	Clothing and Footwear	Alcoholic Beverages, Tobacco	Health	Transport	Communication	Education	Recreation and Culture	Misc. Goods and Services	Restaurants and Hotels	
Aug-22	28.8	30.2	29.6	34.3	25.8	16.2	33.9	24.2	12.0	64.2	1.4	24.3	9.8	27.5	19.7	
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	
12- Month Moving Average																
Aug-22	15.9	16.8	17.1	15.0	8.0	11.1	17.0	15.9	9.7	33.2	1.0	11.7	5.2	15.6	12.8	
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	
Period Average (Since July)																
Aug-22	27.9	30.0	29.5	33.9	24.6	15.1	30.8	23.1	11.8	65.3	1.3	21.3	8.5	26.4	18.7	
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	
Month-on-Month																
Aug-22	2.2	1.2	0.7	3.9	1.9	2.0	6.0	2.4	0.8	-0.5	0.2	6.4	2.8	2.4	1.9	
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	
3-Years Average (in current month during FY22-FY24)																
YoY	22.7	26.5	27.8	18.3	41.9	15.3	17.3	25.5	14.1	32.7	1.9	31.1	10.4	22.0	22.8	
MoM	1.6	0.9	0.8	1.7	0.8	1.1	2.7	1.7	1.1	3.8	0.3	3.6	2.0	1.5	2.1	

Source: Pakistan Bureau of Statistics

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

Sr. No.	Items/Contributors	Weights	YoY Change		Weighted Contribution (%)
			Aug-22	Aug-23	
<b>A. Ranked by Weighted Contribution</b>					
1	Wheat Flour	3.01	24.31	99.68	11.88
2	Readymade Food	5.52	28.72	38.36	8.58
3	Milk Fresh	7.11	25.01	29.25	8.14
4	Appliances/Articles/Products For Personal	2.98	19.58	40.33	4.51
5	Motor Fuel	2.91	84.21	21.02	4.10
6	Condiments And Spices	1.33	-17.43	75.14	3.85
7	Washing Soap/Detergents/Match Box	1.41	28.86	63.03	3.62
8	Chicken	1.36	59.89	67.56	3.44
9	Rice	1.18	36.28	66.82	3.40
10	House Rent	19.26	5.62	5.25	3.22
<b>Total</b>		<b>46.07</b>			<b>54.74</b>
<b>B. Ranked by Percentage Change</b>					
1	Cigarettes	0.72	25.13	117.48	3.20
2	Text Books	0.67	19.96	103.46	2.29
3	Wheat Flour	3.01	24.31	99.68	11.88
4	Tea	0.84	24.87	94.50	3.02
5	Condiments And Spices	1.33	-17.43	75.14	3.85
6	Sugar	1.11	-15.69	70.64	2.41
7	Chicken	1.36	59.89	67.56	3.44
8	Rice	1.18	36.28	66.82	3.40
9	Wheat	0.61	44.48	64.17	1.89
10	Washing Soap/Detergents/Match Box	1.41	28.86	63.03	3.62
<b>Total</b>		<b>12.24</b>			<b>39.00</b>
<b>C. Ranked by Weights</b>					
1	House Rent	19.26	5.62	5.25	3.22
2	Milk Fresh	7.11	25.01	29.25	8.14
3	Readymade Food	5.52	28.72	38.36	8.58
4	Education	4.88	10.06	8.68	1.49
5	Electricity Charges	4.56	123.37	-8.24	-2.38
6	Wheat Flour	3.01	24.31	99.68	11.88
7	Appliances/Articles/Products For Personal	2.98	19.58	40.33	4.51
8	Motor Fuel	2.91	84.21	21.02	4.10
9	Cotton Cloth	2.22	23.53	21.12	1.88
10	Meat	2.04	26.81	18.69	1.82
<b>Total</b>		<b>54.49</b>			<b>43.24</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 25.0 percent in August-2023.

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

Sr. No.	Items/Contributors	Weights	MoM Change		Weighted Contribution (%)
			Jul-23	Aug-23	
<b>A. Ranked by Weighted Contribution</b>					
1	Motor Fuel	2.91	-1.42	8.29	22.98
2	Condiments And Spices	1.33	18.80	16.98	16.56
3	Tomatoes	0.35	33.45	75.35	12.63
4	Education	4.88	0.01	3.63	8.33
5	Readymade Food	5.52	1.20	2.07	7.96
6	Milk Fresh	7.11	2.43	1.57	7.05
7	Appliances/Articles/Products For Personal	2.98	3.99	3.46	6.68
8	Eggs	0.51	0.61	16.26	6.52
9	Sugar	1.11	11.84	9.03	6.13
10	Liquefied Hydrocarbons	0.51	-10.42	14.64	5.20
<b>Total</b>		<b>27.21</b>			<b>100.04</b>
<b>B. Ranked by Percentage Change</b>					
1	Tomatoes	0.35	33.45	75.35	12.63
2	Condiments And Spices	1.33	18.80	16.98	16.56
3	Eggs	0.51	0.61	16.26	6.52
4	Liquefied Hydrocarbons	0.51	-10.42	14.64	5.20
5	Gur	0.04	6.79	12.01	0.28
6	Water Supply	0.53	0.10	11.68	2.96
7	Garbage Collection	0.11	0.10	10.80	0.66
8	Sugar	1.11	11.84	9.03	6.13
9	Motor Fuel	2.91	-1.42	8.29	22.98
10	Text Books	0.67	0.00	6.61	3.56
<b>Total</b>		<b>8.07</b>			<b>77.48</b>
<b>C. Ranked by Weights</b>					
1	House Rent	19.26	1.37	0.00	0.00
2	Milk Fresh	7.11	2.43	1.57	7.05
3	Readymade Food	5.52	1.20	2.07	7.96
4	Education	4.88	0.01	3.63	8.33
5	Electricity Charges	4.56	39.88	1.37	4.54
6	Wheat Flour	3.01	13.36	-0.57	-1.75
7	Appliances/Articles/Products For Personal	2.98	3.99	3.46	6.68
8	Motor Fuel	2.91	-1.42	8.29	22.98
9	Cotton Cloth	2.22	0.45	0.43	0.58
10	Meat	2.04	0.68	1.42	2.05
<b>Total</b>		<b>54.49</b>			<b>58.42</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 1.6 percent in August-2023.

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

Sr. No.	Items/Contributors	Weights	YoY Change		Weighted Contribution (%)			
			Aug-22	Aug-23				
<b>Ranked by Weighted Contribution</b>								
<b>Top 15 Contributors</b>								
1	Wheat Flour	3.01	24.31	99.68	11.88			
2	Readymade Food	5.52	28.72	38.36	8.58			
3	Milk Fresh	7.11	25.01	29.25	8.14			
4	Appliances/Articles/Products For Personal	2.98	19.58	40.33	4.51			
5	Motor Fuel	2.91	84.21	21.02	4.10			
6	Condiments And Spices	1.33	-17.43	75.14	3.85			
7	Washing Soap/Detergents/Match Box	1.41	28.86	63.03	3.62			
8	Chicken	1.36	59.89	67.56	3.44			
9	Rice	1.18	36.28	66.82	3.40			
10	House Rent	19.26	5.62	5.25	3.22			
11	Cigarettes	0.72	25.13	117.48	3.20			
12	Gas Charges	1.08	0.00	62.82	3.17			
13	Tea	0.84	24.87	94.50	3.02			
14	Sugar	1.11	-15.69	70.64	2.41			
15	Text Books	0.67	19.96	103.46	2.29			
<b>Total</b>		<b>50.49</b>			<b>68.83</b>			
<b>Bottom 15 Contributors</b>								
1	Electricity Charges	4.56	123.37	-8.24	-2.38			
2	Onions	0.59	90.54	-31.47	-0.81			
3	Fresh Vegetables	1.53	41.62	-8.69	-0.61			
4	Vegetable Ghee	1.03	69.82	-2.27	-0.17			
5	Pulse Masoor	0.16	114.34	-16.28	-0.13			
6	Mustard Oil	0.01	81.16	-1.54	0.00			
7	Communication Services	1.88	0.52	0.00	0.00			
8	Motor Vehicle Tax	0.05	8.92	0.00	0.00			
9	Therapeutic Appliances And Equipme	0.01	5.75	13.02	0.00			
10	Dental Services	0.02	12.15	10.90	0.01			
11	Postal Services	0.02	12.81	9.13	0.01			
12	Major Tools & Equipments	0.01	22.42	23.78	0.01			
13	Carpets	0.03	13.13	12.80	0.01			
14	Honey	0.10	25.72	4.40	0.02			
15	Pulse Gram	0.17	60.25	2.35	0.02			
<b>Total</b>		<b>10.17</b>			<b>-4.02</b>			

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

Sr. No.	Items/Contributors	Weights	MoM Change		Weighted Contribution (%)			
			Jul-23	Aug-23				
<b>Ranked by Weighted Contribution</b>								
<b>Top 15 Contributors</b>								
1	Motor Fuel	2.91	-1.42	8.29	22.98			
2	Condiments And Spices	1.33	18.80	16.98	16.56			
3	Tomatoes	0.35	33.45	75.35	12.63			
4	Education	4.88	0.01	3.63	8.33			
5	Readymade Food	5.52	1.20	2.07	7.96			
6	Milk Fresh	7.11	2.43	1.57	7.05			
7	Appliances/Articles/Products For Personal	2.98	3.99	3.46	6.68			
8	Eggs	0.51	0.61	16.26	6.52			
9	Sugar	1.11	11.84	9.03	6.13			
10	Liquefied Hydrocarbons	0.51	-10.42	14.64	5.20			
11	Electricity Charges	4.56	39.88	1.37	4.54			
12	Washing Soap/Detergents/Match Box	1.41	3.06	3.95	4.53			
13	Transport Services	1.75	4.01	3.95	3.84			
14	Text Books	0.67	0.00	6.61	3.56			
15	Personal Effects N.E.C.	0.94	-4.67	4.05	3.40			
<b>Total</b>		<b>36.54</b>			<b>119.91</b>			
<b>Bottom 15 Contributors</b>								
1	Fresh Fruits	1.44	-17.90	-24.70	-21.88			
2	Fresh Vegetables	1.53	37.64	-17.18	-16.96			
3	Chicken	1.36	-2.76	-6.26	-7.24			
4	Cooking Oil	1.10	-0.44	-4.29	-4.65			
5	Vegetable Ghee	1.03	-3.81	-2.67	-2.58			
6	Wheat Flour	3.01	13.36	-0.57	-1.75			
7	Onions	0.59	-2.21	-4.75	-1.12			
8	Wheat	0.61	11.14	-0.23	-0.14			
9	Mustard Oil	0.01	-2.82	-2.70	-0.03			
10	Communication Services	1.88	0.00	0.00	0.00			
11	Motor Vehicle Tax	0.05	0.00	0.00	0.00			
12	Gas Charges	1.08	0.00	0.00	0.00			
13	Newspapers	0.07	0.00	0.00	0.00			
14	Tea	0.84	0.88	0.00	0.00			
15	House Rent	19.26	1.37	0.00	0.00			
<b>Total</b>		<b>33.86</b>			<b>-56.35</b>			

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

Sr. No.	Items/Contributors	Weights	MoM Change		Weighted Contribution (%)			
			Jul-23	Aug-23				
<b>Ranked by Weighted Contribution</b>								
<b>Top 15 Contributors</b>								
1	Condiments and Spices	1.33	18.80	16.98	16.56			
2	Tomatoes	0.35	33.45	75.35	12.63			
3	Readymade food	5.52	1.20	2.07	7.96			
4	Milk fresh	7.11	2.43	1.57	7.05			
5	Eggs	0.51	0.61	16.26	6.52			
6	Sugar	1.11	11.84	9.03	6.13			
7	Beverages	0.89	4.01	6.18	3.22			
8	Rice	1.18	2.75	2.68	2.81			
9	Meat	2.04	0.68	1.42	2.05			
10	Potatoes	0.45	8.16	4.38	1.94			
11	Sweetmeat	0.35	0.18	5.34	1.35			
12	Milk powder	0.31	5.52	5.52	1.08			
13	Bakery and confectionary	0.48	1.27	1.70	0.56			
14	Milk products	0.64	2.95	1.35	0.56			
15	Wheat products	0.09	1.94	5.05	0.40			
<b>Total</b>		<b>22.37</b>			<b>70.82</b>			
<b>Bottom 15 Contributors</b>								
1	Fresh fruits	1.44	-17.90	-24.70	-21.88			
2	Fresh vegetables	1.53	37.64	-17.18	-16.96			
3	Chicken	1.36	-2.76	-6.26	-7.24			
4	Cooking oil	1.10	-0.44	-4.29	-4.65			
5	Vegetable ghee	1.03	-3.81	-2.67	-2.58			
6	Wheat flour	3.01	13.36	-0.57	-1.75			
7	Onions	0.59	-2.21	-4.75	-1.12			
8	Wheat	0.61	11.14	-0.23	-0.14			
9	Mustard oil	0.01	-2.82	-2.70	-0.03			
10	Tea	0.84	0.88	0.00	0.00			
11	Honey	0.10	0.24	0.03	0.00			
12	Dessert preparation	0.04	0.11	0.18	0.01			
13	Ice cream	0.10	0.10	0.14	0.01			
14	Besan	0.08	-0.93	1.08	0.05			
15	Pan prepared	0.14	2.48	0.56	0.08			
<b>Total</b>		<b>12.00</b>			<b>-56.22</b>			

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

Sr. No.	Items/Contributors	Weights	MoM Change		Weighted Contribution (%)			
			Jul-23	Aug-23				
<b>Ranked by Weighted Contribution</b>								
<b>Top 15 Contributors</b>								
1	Motor fuel	2.91	-1.42	8.29	22.98			
2	Education	4.88	0.01	3.63	8.33			
3	Appliances/Articles/Products for Personal	2.98	3.99	3.46	6.68			
4	Liquefied Hydrocarbons	0.51	-10.42	14.64	5.20			
5	Electricity charges	4.56	39.88	1.37	4.54			
6	Washing soap/detergents/match Box	1.41	3.06	3.95	4.53			
7	Transport services	1.75	4.01	3.95	3.84			
8	Text books	0.67	0.00	6.61	3.56			
9	Personal Effects n.e.c.	0.94	-4.67	4.05	3.40			
10	Water supply	0.53	0.10	11.68	2.96			
11	Readymade garments	1.32	0.30	3.86	2.57			
12	Marriage Hall Charges	1.75	0.59	2.01	2.04			
13	Drugs and medicines	1.07	2.24	3.15	1.99			
14	Footware	1.48	0.07	1.82	1.36			
15	Personal Grooming Services	0.80	0.52	2.81	1.32			
<b>Total</b>		<b>27.55</b>			<b>75.30</b>			
<b>Bottom 15 Contributors</b>								
1	Newspapers	0.07	0.00	0.00	0.00			
2	Communication Services	1.88	0.00	0.00	0.00			
3	Motor vehicle tax	0.05	0.00	0.00	0.00			
4	Gas charges	1.08	0.00	0.00	0.00			
5	House rent	19.26	1.37	0.00	0.00			
6	Carpets	0.03	0.67	0.12	0.00			
7	Postal services	0.02	2.35	0.21	0.00			
8	Major tools & equipments	0.01	0.30	0.49	0.00			
9	Communication apparatus	0.45	1.89	0.01	0.00			
10	Accommodation Services	0.13	0.00	0.05	0.00			
11	Dental services	0.02	1.79	1.17	0.01			
12	Therapeutic Appliances and Equipme	0.01	0.00	5.00	0.01			
13	Plastic products	0.05	1.16	0.46	0.01			
14	Woolen readymade garments	0.43	0.00	0.11	0.02			
15	Electrical Appliances for Personal	0.05	0.05	1.44	0.03			
<b>Total</b>		<b>23.53</b>			<b>0.09</b>			

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

Sr. No.	Items/Contributors	Weights	YoY Change		Weighted Contribution (%)
			Aug-22	Aug-23	
<b>A. Ranked by Weighted Contribution</b>					
1	Wheat Flour	3.43	22.60	98.17	10.56
2	Milk Fresh	10.38	21.67	34.83	10.39
3	Wheat	3.47	39.80	67.89	8.59
4	Rice	1.55	35.29	68.29	4.57
5	Readymade Food	3.80	30.98	31.77	4.22
6	Solid Fuel	4.48	22.25	29.75	3.93
7	Cigarettes	1.24	25.51	102.03	3.59
8	Tea	1.26	22.53	98.46	3.55
9	Sugar	2.03	-16.29	70.95	3.46
10	Washing Soaps, Detergents And Match Box	1.70	28.23	58.66	3.05
<b>Total</b>		<b>33.34</b>			<b>55.91</b>
<b>B. Ranked by Percentage Change</b>					
1	Text Books	0.50	20.63	119.97	1.53
2	Cigarettes	1.24	25.51	102.03	3.59
3	Tea	1.26	22.53	98.46	3.55
4	Wheat Flour	3.43	22.60	98.17	10.56
5	Sugar	2.03	-16.29	70.95	3.46
6	Rice	1.55	35.29	68.29	4.57
7	Wheat	3.47	39.80	67.89	8.59
8	Dessert Preparation	0.01	19.11	67.77	0.02
9	Chicken	1.46	63.26	65.09	2.96
10	Gur	0.15	0.17	61.13	0.24
<b>Total</b>		<b>15.10</b>			<b>39.07</b>
<b>C. Ranked by Weights</b>					
1	Milk Fresh	10.38	21.67	34.83	10.39
2	House Rent	8.61	5.90	7.45	1.61
3	Solid Fuel	4.48	22.25	29.75	3.93
4	Readymade Food	3.80	30.98	31.77	4.22
5	Wheat	3.47	39.80	67.89	8.59
6	Electricity Charges	3.44	123.37	-8.24	-1.41
7	Wheat Flour	3.43	22.60	98.17	10.56
8	Cotton Cloth	2.84	15.88	20.03	1.89
9	Motor Fuels	2.49	87.34	22.53	2.96
10	Vegetable Ghee	2.38	68.67	-2.06	-0.30
<b>Total</b>		<b>45.32</b>			<b>42.44</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 30.9 percent in August-2023.

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

Sr. No.	Items/Contributors	Weights	MoM Change		Weighted Contribution (%)
			Jul-23	Aug-23	
<b>A. Ranked by Weighted Contribution</b>					
1	Transport Services	1.80	0.72	22.00	19.38
2	Motor Fuels	2.49	-1.43	8.73	16.51
3	Tomatoes	0.51	32.57	82.57	14.23
4	Sugar	2.03	12.45	8.87	8.68
5	Milk Fresh	10.38	2.17	1.39	7.06
6	Eggs	0.57	-2.50	18.24	6.09
7	Appliances/Articles/Products For Personal Care	2.27	3.42	5.89	6.07
8	Liquefied Hydrocarbons	1.00	-4.54	8.13	4.37
9	Personal Effects N.E.C.	1.21	-4.39	4.93	4.21
10	Rice	1.55	1.38	2.70	3.78
<b>Total</b>		<b>23.81</b>			<b>90.38</b>
<b>B. Ranked by Percentage Change</b>					
1	Tomatoes	0.51	32.57	82.57	14.23
2	Water Supply	0.06	0.00	22.15	0.69
3	Transport Services	1.80	0.72	22.00	19.38
4	Postal Services	0.01	0.00	20.00	0.05
5	Eggs	0.57	-2.50	18.24	6.09
6	Gur	0.15	4.69	12.18	0.89
7	Sugar	2.03	12.45	8.87	8.68
8	Motor Fuels	2.49	-1.43	8.73	16.51
9	Milk Powder	0.11	0.45	8.54	0.39
10	Liquefied Hydrocarbons	1.00	-4.54	8.13	4.37
<b>Total</b>		<b>8.73</b>			<b>71.28</b>
<b>C. Ranked by Weights</b>					
1	Milk Fresh	10.38	2.17	1.39	7.06
2	House Rent	8.61	1.68	0.00	0.00
3	Solid Fuel	4.48	0.87	0.41	0.90
4	Readymade Food	3.80	1.92	1.18	2.62
5	Wheat	3.47	10.77	0.72	1.93
6	Electricity Charges	3.44	39.88	1.37	2.71
7	Wheat Flour	3.43	13.43	0.68	1.84
8	Cotton Cloth	2.84	0.36	0.80	1.15
9	Motor Fuels	2.49	-1.43	8.73	16.51
10	Vegetable Ghee	2.38	-3.15	-2.44	-4.63
<b>Total</b>		<b>45.32</b>			<b>30.09</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 1.9 percent in August-2023.

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

Sr. No.	Items/Contributors	Weights	YoY Change		Weighted Contribution (%)			
			Aug-22	Aug-23				
<b>Ranked by Weighted Contribution</b>								
<b>Top 15 Contributors</b>								
1	Wheat Flour	3.43	22.60	98.17	10.56			
2	Milk Fresh	10.38	21.67	34.83	10.39			
3	Wheat	3.47	39.80	67.89	8.59			
4	Rice	1.55	35.29	68.29	4.57			
5	Readymade Food	3.80	30.98	31.77	4.22			
6	Solid Fuel	4.48	22.25	29.75	3.93			
7	Cigarettes	1.24	25.51	102.03	3.59			
8	Tea	1.26	22.53	98.46	3.55			
9	Sugar	2.03	-16.29	70.95	3.46			
10	Washing Soaps, Detergents And Match Box	1.70	28.23	58.66	3.05			
11	Chicken	1.46	63.26	65.09	2.96			
12	Motor Fuels	2.49	87.34	22.53	2.96			
13	Appliances/Articles/Products For Personal Care	2.27	13.10	45.45	2.67			
14	Condiments And Spices	1.49	3.36	55.07	2.52			
15	Transport Services	1.80	59.30	38.23	2.33			
<b>Total</b>		<b>42.85</b>			<b>69.35</b>			
<b>Bottom 15 Contributors</b>								
1	Electricity Charges	3.44	123.37	-8.24	-1.41			
2	Onions	0.90	96.70	-36.03	-1.08			
3	Vegetable Ghee	2.38	68.67	-2.06	-0.30			
4	Pulse Masoor	0.21	118.64	-16.69	-0.14			
5	Fresh Vegetables	2.09	41.61	-0.59	-0.04			
6	Communication Services	1.65	0.16	0.00	0.00			
7	Accommodation Services	0.14	7.08	0.00	0.00			
8	Motor Vehicle Tax	0.02	24.88	0.00	0.00			
9	Garbage Collection	0.01	9.60	4.78	0.00			
10	Postal Services	0.01	0.00	20.00	0.00			
11	Mustard Oil	0.01	69.19	5.53	0.00			
12	Honey	0.03	19.42	6.30	0.01			
13	Cooking Oil	0.60	69.61	0.25	0.01			
14	Dental Services	0.02	12.40	23.40	0.01			
15	Cleaning And Laundering	0.02	30.49	29.55	0.02			
<b>Total</b>		<b>11.53</b>			<b>-2.92</b>			

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

Sr. No.	Items/Contributors	Weights	MoM Change		Weighted Contribution (%)			
			Jul-23	Aug-23				
<b>Ranked by Weighted Contribution</b>								
<b>Top 15 Contributors</b>								
1	Transport Services	1.80	0.72	22.00	19.38			
2	Motor Fuels	2.49	-1.43	8.73	16.51			
3	Tomatoes	0.51	32.57	82.57	14.23			
4	Sugar	2.03	12.45	8.87	8.68			
5	Milk Fresh	10.38	2.17	1.39	7.06			
6	Eggs	0.57	-2.50	18.24	6.09			
7	Appliances/Articles/Products For Personal Care	2.27	3.42	5.89	6.07			
8	Liquefied Hydrocarbons	1.00	-4.54	8.13	4.37			
9	Personal Effects N.E.C.	1.21	-4.39	4.93	4.21			
10	Rice	1.55	1.38	2.70	3.78			
11	Potatoes	0.74	7.74	4.56	2.85			
12	Drugs And Medicines	1.58	2.73	3.49	2.77			
13	Electricity Charges	3.44	39.88	1.37	2.71			
14	Washing Soaps, Detergents And Match Box	1.70	1.93	2.54	2.62			
15	Readymade Food	3.80	1.92	1.18	2.62			
<b>Total</b>		<b>35.07</b>			<b>103.95</b>			
<b>Bottom 15 Contributors</b>								
1	Fresh Fruits	1.45	-16.95	-25.75	-19.73			
2	Chicken	1.46	-2.48	-6.29	-6.44			
3	Fresh Vegetables	2.09	26.22	-4.87	-4.63			
4	Vegetable Ghee	2.38	-3.15	-2.44	-4.63			
5	Cooking Oil	0.60	-4.00	-1.64	-0.78			
6	Mustard Oil	0.01	0.01	-1.20	-0.01			
7	Besan	0.07	-1.26	-0.10	0.00			
8	Communication Services	1.65	0.00	0.00	0.00			
9	Accommodation Services	0.14	0.00	0.00	0.00			
10	Motor Vehicle Tax	0.02	0.00	0.00	0.00			
11	Woolen Readymade Garments	0.54	0.00	0.00	0.00			
12	Newspapers	0.02	0.00	0.00	0.00			
13	Doctor Clinic Fee	0.51	0.00	0.00	0.00			
14	Honey	0.03	0.42	0.00	0.00			
15	Ice Cream	0.06	0.24	0.00	0.00			
<b>Total</b>		<b>11.03</b>			<b>-36.22</b>			

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

Sr. No.	Items/Contributors	Weights	MoM Change		Weighted Contribution (%)			
			Jul-23	Aug-23				
<b>Ranked by Weighted Contribution</b>								
<b>Top 15 Contributors</b>								
1	Tomatoes	0.51	32.57	82.57	14.23			
2	Sugar	2.03	12.45	8.87	8.68			
3	Milk fresh	10.38	2.17	1.39	7.06			
4	Eggs	0.57	-2.50	18.24	6.09			
5	Rice	1.55	1.38	2.70	3.78			
6	Potatoes	0.74	7.74	4.56	2.85			
7	Readymade Food	3.80	1.92	1.18	2.62			
8	Wheat	3.47	10.77	0.72	1.93			
9	Wheat Flour	3.43	13.43	0.68	1.84			
10	Beverages	0.55	2.93	5.05	1.23			
11	Condiments and Spices	1.49	4.35	1.25	1.12			
12	Meat	1.71	0.87	1.05	1.02			
13	Gur	0.15	4.69	12.18	0.89			
14	Milk products	0.96	3.87	1.76	0.82			
15	Bakery and Confectionary	0.37	1.35	3.41	0.74			
<b>Total</b>		<b>31.73</b>			<b>54.90</b>			
<b>Bottom 15 Contributors</b>								
1	Fresh fruits	1.45	-16.95	-25.75	-19.73			
2	Chicken	1.46	-2.48	-6.29	-6.44			
3	Fresh Vegetables	2.09	26.22	-4.87	-4.63			
4	Vegetable ghee	2.38	-3.15	-2.44	-4.63			
5	Cooking oil	0.60	-4.00	-1.64	-0.78			
6	Mustard oil	0.01	0.01	-1.20	-0.01			
7	Besan	0.07	-1.26	-0.10	0.00			
8	Honey	0.03	0.42	0.00	0.00			
9	Ice Cream	0.06	0.24	0.00	0.00			
10	Dessert Preparation	0.01	2.55	0.00	0.00			
11	Tea	1.26	1.92	0.00	0.00			
12	Fish	0.26	0.00	0.30	0.03			
13	Wheat Products	0.11	0.92	0.54	0.04			
14	Pan Prepared	0.04	1.19	2.52	0.07			
15	Pulse Gram	0.28	-1.32	0.57	0.07			
<b>Total</b>		<b>10.12</b>			<b>-36.03</b>			

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

Sr. No.	Items/Contributors	Weights	MoM Change		Weighted Jul-23 Aug-23 Contribution (%)			
			Jul-23	Aug-23				
<b>Ranked by Weighted Contribution</b>								
<b>Top 15 Contributors</b>								
1	Transport Services	1.80	0.72	22.00	19.38			
2	Motor Fuels	2.49	-1.43	8.73	16.51			
3	Appliances/Articles/Products for Personal Care	2.27	3.42	5.89	6.07			
4	Liquefied Hydrocarbons	1.00	-4.54	8.13	4.37			
5	Personal Effects n.e.c.	1.21	-4.39	4.93	4.21			
6	Drugs and Medicines	1.58	2.73	3.49	2.77			
7	Electricity Charges	3.44	39.88	1.37	2.71			
8	Washing Soaps, Detergents and Match Box	1.70	1.93	2.54	2.62			
9	Education	2.13	0.00	2.79	2.25			
10	Personal Grooming Services	1.54	3.63	2.26	2.00			
11	Text Books	0.50	0.00	5.16	1.76			
12	Marriage Hall Charges	2.25	5.05	1.66	1.64			
13	Household Equipments	1.28	1.35	2.12	1.47			
14	Readymade Garments	1.13	0.58	2.67	1.34			
15	Hosery	0.43	1.40	4.63	1.23			
<b>Total</b>		<b>24.76</b>			<b>70.32</b>			
<b>Bottom 15 Contributors</b>								
1	Newspapers	0.02	0.00	0.00	0.00			
2	Communication Services	1.65	0.00	0.00	0.00			
3	Accommodation Services	0.14	0.00	0.00	0.00			
4	Motor Vehicle Tax	0.02	0.00	0.00	0.00			
5	Woolen Readymade Garments	0.54	0.00	0.00	0.00			
6	Doctor Clinic Fee	0.51	0.00	0.00	0.00			
7	Dental Services	0.02	1.87	0.00	0.00			
8	Hospitals Services	1.01	0.10	0.00	0.00			
9	House Rent	8.61	1.68	0.00	0.00			
10	Major Tools and Equipments	0.03	0.43	0.85	0.01			
11	Cleaning and Laundering	0.02	0.36	1.47	0.01			
12	Garbage Collection	0.01	0.00	4.78	0.01			
13	Postal Services	0.01	0.00	20.00	0.05			
14	Woolen Cloth	1.10	0.20	0.11	0.05			
15	Plastic Products	0.08	1.41	2.11	0.08			
<b>Total</b>		<b>13.76</b>			<b>0.22</b>			

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

<b>Groups</b>	<b>Decrease or no change</b>	<b>Subdued increase (Greater than 0% but less than 5%)</b>	<b>Moderate increase (5% but less than 10%)</b>	<b>Double digit increase (10% or more)</b>
Food & Non-Alcoholic Beverages	Onions, Lemon, Lady Finger (Bhindi), Turai, Chilies (Green), Karela, Bottlegourd (Loki), Pulse Masoor (Washed), Tinda, Cardamom Small (Average Quality), Mango Kalmi	Peach (Average Quality), Pulse Gram, Guava (Amrood) (Average Quality), Cooking Oil Dalda Or Other Similar Brand (Sn), 5 Litre Tin, Honey Marhaba Bottle 500 Gm,	Apple (Average Quality),	Gram Whole Black (Average Quality), Besan, Grapes (Angoor) (Average Quality), Cucumber (Kheera), Cardamom Large (Loose) (Average Quality), Almonds (Badam) Kaghazi With Shell
Alcoholic Beverages & Tobacco				Pan Prepared (Sweet With Beeth 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), Awami Suit Gents Wash & Wear (Average Quality),	Dopatta Georgette (Average Quality), Gents Sandal Bata, Tailoring Charges Simple Suit (Female), Tailoring Charges Awami Suit (Male), Tailoring Charges Pant (Men), Socks Nylon Local (Average Quality), Chaddar (Wash-N-Wear) (2X2.5 Meter), Vest "Banigan" For Men Average Quality, Gents Sponge Chappal Bata, Pullover Gents (Average Quality), Dry
Housing, Water, Elec, Gas & other Fuels	Electricity Charges 51-100 Units, Electricity Charges Upto 50 Units, Electricity Charges 101-300 Units, Electricity Charges Combined,	Lpg 11.67 Kg Cylinder,	House Rent Combined, Electricity Charges Above 700 Units, Electricity Charges 301-700 Units,	Mason Wage Rate, Charges For Refuse/Waste Collection, Cement (Local) 50 Kg Bag, Bajri, Plumber Wage Rate, Unskilled Labor Wage Rate, Painter Wage Rate, Bricks New 1St Class, Electrician Charges, Water Charges Per House, Cement Blocks (6"X8"X12"), Iron Bars
Furnishing & Household Equip., Maintenance etc				Bed Sheet Double With Two Pillow Covers (Superior Quality), Plain Carpet, Bed Sheet Single (Superior Quality), Air Cooler Super Asia Ecm-4000/Jc-1000, Household Servant Female Part Time, Towel Medium Size (3' X 2'), Blanket Single (Sn), Dinner Set Plastic 72 Pieces
Health		Ventolin Tablets 2 Mg,	Cac 1000 Tablets Sandoz Bottle, Physiotherapist Fee Per Visit, Inderal Tablets 10 Mg, Gynecologist Fee Per Visit, Sugar Test (Random/Fasting) Charges Of Both,	Calpol Syrup 100 ML Bottle, Dental Surgeon Fee Per Visit, Dental Extraction Fee, Betnovate-N Ointment 10 Gm Tube, Glucometer, Septran Tablets, Daonil Tablets 5 Mg, Ecg Charges, Electronic Bp Checking Apparatus, Hydralin Syrup 120 MI Bottle, Urine Test (Dr) Charges,
Transport	Cng, Car Suzuki 800 Cc Without Ac, Car Tax 800 Cc To 1500 Cc,	Car Toyota 1300 Cc Xli, Mini Bus Fare Minimum Within City,	Bus Fare Minimum Within City, Bus Fare Maximum Within City,	Suzuki Fare Minimum Within City, Bus Fare Outside City (Ac), Auto Rickshaw Fare, Mini Bus Fare Maximum Within City, Suzuki Fare Maximum Within City, Hi-Speed Diesel, Motorcycle Service Charges, Car Service Charges, Taxi Four Seater Fare, Petrol Super, Bus Fare
Communication	Mobile Call Charges, Telephone Call Charges, Internet Charges (Dsl) 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, Urdu Book Ba/B.Sc, Personal Computer With Led Monitor (17") Dell/Hp/Acer Core I5, Photostat Paper 70 Gm, Laptop Dell/Hp/Acer Core I5, Display (14'-15'), Lead Pencil Goldfish, English Book Ba/B.Sc, Led Sony/Samsung 32" Colored, Newspaper
Education		Government University Fee M.S.C / M.A., Government Medical College/University Tuition Fee For Mbbs (1St Year), Private Engineering University Tuition Fee For Be (1St	Coaching Fee For Class Xi/Xii Science Group, Coaching Fee For Class Xi/Xii Commerce Group, Government College Fee First Year,	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 I), Private
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 Hostel Accommodation Fee For Intermediate
Miscellaneous				Purse Ladies Medium Size (Average Quality), Electric Hair Straightener (Philips), Perfume Medium Size Broche/Medora, Wall Clock Quartz (Average Quality), Hair Style Charges (At Average Beauty Parlor), Toilet Soap Lux 75 Gm, Tooth Brush (Shield), Pampers

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

<b>Groups</b>	<b>Decrease or no change</b>	<b>Subdued increase (Greater than 0% but less than 5%)</b>	<b>Moderate increase (5% but less than 10%)</b>	<b>Double digit increase (10% or more)</b>
Food & Non-Alcoholic Beverages	Lemon, Onions, Chilies (Green), Pulse Masoor (Washed), Turai, Karela, Bottlegourd (Loki), Vegetable Ghee Dalda/Habib Or Other Superior Quality 1 Kg Pouch, Vegetable Ghee Dalda/Habib 2.5 Kg Tin, Tinda, Radish (Mooli), Turnip (Shalgam), Peas	Cooking Oil (Pouch), Mango Kalmi (Average Quality), Lady Finger (Bhindi), Pulse Gram, Guava (Amrood) (Average Quality),	Brinjal, Mustard Oil (Average Quality), Honey Marhaba Bottle 500 Gm,	Apple (Average Quality), Gram Whole Black (Average Quality), Beef With Bone (Average Quality), Besan, Cucumber (Kheera), Gram Whole Yellow (Average Quality), Mutton (Average Quality), Fish Fresh, Garlic (Lehsun), Desi Ghee, Pulse Moong (Washed), Almonds (Badam)
Alcoholic Beverages & Tobacco				Pan Prepared (Sweet With Beetle Nuts), Chewing Tobacco (Niswar), Tobacco Hukka Twisted, Cigarettes Capstan 20'S Packet, Cigarettes Gold Leaf 20'S Packet,
Clothing & Footwear				Footware Gents Local (Average Quality), Pullover Ladies (Average Quality), Tailoring Charges Simple Suit (Female), Chaddar (Wash-N-Wear) (2X2.5 Meter), Lawn Printed (Average Quality), Tailoring Charges Awami Suit (Male), Shirting (Average Quality), Pullover Gents (Average Quality), Full Pant Boy Length 24"/26", Linen, Ladies (Average Quality), Long
Housing, Water, Elec, Gas & other Fuels	Electricity Charges 51-100 Units, Electricity Charges Upto 50 Units, Electricity Charges 101-300 Units, Electricity Charges Combined,	Lpg 11.67 Kg Cylinder, Charges For Refuse/Waste Collection,	Electricity Charges Above 1000 Units, House Rent Combined, Electricity Charges 301-1000 Units,	Cement (Local) 50 Kg Bag, Carpenter Wage Rate, Bajri, Mason Wage Rate, Unskilled Labor Wage Rate, Kerosene Oil, Plumber Wage Rate, Painter Wage Rate, Bricks New 1st Class, Water Charges Per House, Coal, Sand (Black Pit), Electrician
Furnishing & Household Equip., Maintenance etc				Cot Iron (Charpai), Blanket Single (Sn), Readymade Quilt (3 Kg), Bucket (Balti) Plastic Medium Size, Dinner Set Plastic 72 Pieces Super Quality, Lota Plastic Medium Size (Average Quality), Towel Medium Size (2' X 3'), Energy Saver Philips 14
Health			Cost Of Surgery (C-Section), Physiotherapist Fee Per Visit, Cac 1000 Tablets Sandoz Bottle,	Daonil Tablets 5 Mg, Inderal Tablets 10 Mg, Amoxil Capsule 250 Mg, Hydryllin Syrup 120 ML Bottle, X-Ray (Chest) Charges, Doctor (Mbbs) Clinic Fee, Blood Test (Cp) Charges, Johar Josphanda Instant
Transport	Car Suzuki 800 Cc Without Ac, Car Tax 800 Cc To 1500 Cc,	Cng,		Hi-Speed Diesel, Petrol Super, Motorcycle Service Charges, Bicycle, Air Fare Economy Class Per Kilometer, Tire Cycle, Tire Car Mehran Tubeless (General), Chingchi Rickshaw Charges, Minimum, Mobil Oil (Havoline 20W-50), Motorcycle
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, Lead Pencil Goldfish, Exercise Book (With Lines) 80 To 100 Pages, Newspaper Daily Jang, Ballpoint Pen Local, English Books Class XI Complete Set, English
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 Average Standard (Class I),
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), Marriage Hall Charges With Furniture, Tea Prepared Ordinary, Cooked Beef At Average Hotel, Cooked Chicken At Average Hotel, Cooked Daal At Average Hotel, Marriage Hall Service Charges With
Miscellaneous				Tooth Brush (Shield), Hair Color (Kala Kola), Trunk Medium Size (Average Quality), Artificial Jewelry (Locket Set) (Average Quality), Shaving Cream (Touchme Large/Admiral), Hair Removing Cream (Eu-Cream) 30ML Tube, Tooth Paste Colgate 75 Gm, Shaving Charges, Purse Ladies Medium Size (Average

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

<b>Groups</b>	<b>Decrease or no change</b>	<b>Subdued increase (Greater than 0% but less than 5%)</b>	<b>Moderate increase (5% but less than 10%)</b>	<b>Double digit increase (10% or more)</b>
Agriculture Forestry & Fisher Product	Vegetables, Fiber Crops,		Other Oil Seeds,	Maize, Fresh Fruits, Cotton Seeds, Pulses, Hides, Skins & Fur Skins, Raw, Fish Live Fresh or Chilled, Raw Animal Materials / Wool, Raw Milk from Bovine Animals, Sorghum / Jowar, Fuel Wood in Logs, Eggs, Unmanufactured Tobacco, Millet / Bajra,
Ores/Minerals, Etc., Gas & Water	Electrical Energy,			Natural Gas Liquified, 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,	Chocolate, Footwears,	Vegetable Oils Refined, Woolen Carpets, Sugar Confectionary, Hosiery Products, Other Cereal Flour, Readymade Garments, Woven Fabrics, Other Fabrics, Meat of Animals, Towels, Bed Sheets, Ice Cream, Oil Cakes,
Other Transportable Goods except Metal Products, Machinery and Equipments		Kerosene Oil, Fertilizers,	Diesel Oil, Bricks, Blocks & Tiles,	Cement, Timber, Chemicals, Bed Foam, Furnace Oil, Pesticides, Motor Spirit, Ceramics & Sanitary Fixture, Mobil Oil, Other Glass Articles, Paints & Varnishes, Insecticides, Plastic Products,
Metal Product, Machinery & Equipments	Vacuum Pumps,			Steel Bar & Sheets, Lathe Machines, Engines & Motors, Motor Vehicles, Concrete Mixture, Tractors, Bicycles, Motorcycles, Electric Wires, Fridge, WashM, SewM, Fans, Iron, Pipe Fittings, Chuff Cutter, Radio & Television,

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

Items	Jun-23	Aug-22	Jul-23	Aug-23
Energy				
Crude Oil (US\$ per barrel)	73.3	96.0	79.0	84.7
WB Energy Index (2010 = 100)	95.2	172.8	100.9	108.7
Food				
Rice (\$/MT)	514.0	431.0	547.0	635.0
Wheat (\$/MT)	345.5	382.9	345.5	315.8
Sugar (US cent/ pound)^	0.5	0.4	0.5	0.5
Palm Oil (\$/MT)	817.0	1,026.0	878.5	860.8
Soybean Oil (\$/MT)	1,007.1	1,598.8	1,135.7	1,126.5
Non-Food Non-Energy				
Cotton Outlook 'A' Index (\$/KG) #	2.0	2.7	2.1	2.1
Metal Price Index (2010 = 100)	106.7	110.6	107.0	105.2
Copper (\$/MT)	8,396.5	7,981.8	8,476.7	8,349.1
Aluminum (\$/MT)	2,184.8	2,430.8	2,159.7	2,136.6
Iron Ore (\$ cents/dry MT)	113.5	108.9	114.4	110.2
Tin (\$/MT)	27,216.7	24,647.5	28,743.1	26,074.9
Nickle (\$/MT)	21,233.3	22,057.4	21,091.3	20,438.7
Zinc (\$/MT)	2,375.5	3,587.6	2,404.7	2,406.7
Lead (\$/MT)	2,122.9	2,072.7	2,109.1	2,153.8
Uranium (\$/MT) <sup>1</sup>	56.1	51.3	56.4	56.4
DAP (\$/MT)	454.6	749.4	458.8	528.8
Urea (\$/MT)	287.5	591.3	334.6	385.6

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/

Uranium price of July is repeated for August 2023

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	
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>					
<b>Month</b>	<b>FY20</b>	<b>FY21</b>	<b>FY22</b>	<b>FY23</b>	<b>FY24</b>
Jul	123.64	135.21	146.61	183.24	235.18
Aug	125.73	136.09	147.48	187.68	239.09
Sep	126.40	137.83	150.21	185.02	
Oct	128.02	139.42	152.24	192.68	
Nov	129.66	140.47	156.67	193.99	
Dec	130.55	140.98	158.33	197.12	
Jan	133.73	141.37	159.77	203.87	
Feb	132.17	143.56	161.03	211.69	
Mar	132.14	144.00	162.23	219.51	
Apr	130.48	144.93	164.27	224.02	
May	131.68	145.98	166.04	229.09	
Jun	133.02	145.96	177.19	229.40	

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

Month	Original Series				
	FY20	FY21	FY22	FY23	FY24
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	
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	
Seasonally Adjusted Series					
Jul	124.46	134.23	145.87	180.33	227.69
Aug	126.33	135.33	146.56	184.96	231.13
Sep	127.23	136.99	149.48	181.15	
Oct	128.79	138.23	151.44	188.65	
Nov	130.15	139.20	155.90	189.53	
Dec	130.90	140.04	157.90	192.04	
Jan	133.65	140.48	158.83	197.69	
Feb	131.92	143.18	159.58	205.47	
Mar	132.08	143.54	160.61	213.48	
Apr	130.39	144.66	162.31	216.63	
May	131.41	145.65	163.63	221.04	
Jun	132.67	145.52	174.50	222.32	

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

<b>Month</b>	<b>Original Series</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	
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>					
	<b>FY20</b>	<b>FY21</b>	<b>FY22</b>	<b>FY23</b>	<b>FY24</b>
Jul	122.41	136.69	147.73	187.64	246.48
Aug	124.84	137.25	148.86	191.77	251.09
Sep	125.16	139.10	151.31	190.86	
Oct	126.86	141.21	153.44	198.78	
Nov	128.93	142.38	157.82	200.72	
Dec	130.01	142.40	158.98	204.78	
Jan	133.85	142.70	161.17	213.19	
Feb	132.54	144.13	163.21	221.09	
Mar	132.22	144.69	164.68	228.60	
Apr	130.62	145.35	167.22	235.18	
May	132.09	146.48	169.69	241.25	
Jun	133.55	146.63	181.24	240.09	

**Table A27: National 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	100.18	100.13	100.10	100.06	100.02	100.10
Aug	100.12	100.10	100.09	100.09	100.08	100.10
Sep	100.36	100.36	100.35	100.36		100.36
Oct	100.89	100.90	100.90	100.90		100.90
Nov	100.95	100.97	100.97	100.98		100.97
Dec	99.93	99.91	99.89	99.87		99.90
Jan	99.49	99.43	99.38	99.34		99.41
Feb	99.60	99.68	99.74	99.81		99.71
Mar	99.66	99.73	99.78	99.83		99.75
Apr	100.08	100.11	100.14	100.17		100.13
May	99.49	99.49	99.51	99.51		99.50
Jun	99.29	99.22	99.17	99.12		99.20

**Table A28: Urban 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	100.39	100.37	100.37	100.35	100.34	100.37
Aug	100.35	100.36	100.38	100.41	100.43	100.39
Sep	100.38	100.39	100.40	100.41		100.40
Oct	100.75	100.75	100.76	100.76		100.75
Nov	100.70	100.69	100.68	100.67		100.68
Dec	99.74	99.73	99.72	99.70		99.72
Jan	99.34	99.27	99.20	99.13		99.23
Feb	99.54	99.61	99.66	99.71		99.63
Mar	99.55	99.62	99.66	99.70		99.63
Apr	100.16	100.18	100.19	100.22		100.19
May	99.68	99.68	99.70	99.70		99.69
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	99.85	99.76	99.69	99.63	99.58	99.70
Aug	99.78	99.70	99.65	99.62	99.59	99.67
Sep	100.31	100.30	100.28	100.27		100.29
Oct	101.12	101.12	101.12	101.10		101.11
Nov	101.35	101.38	101.40	101.42		101.39
Dec	100.21	100.18	100.15	100.11		100.16
Jan	99.68	99.67	99.66	99.64		99.66
Feb	99.69	99.78	99.86	99.94		99.82
Mar	99.84	99.90	99.96	100.01		99.93
Apr	99.97	100.01	100.06	100.11		100.04
May	99.20	99.21	99.23	99.24		99.22
Jun	99.11	99.06	99.01	98.97		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	
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>					
<b>Month</b>	<b>FY20</b>	<b>FY21</b>	<b>FY22</b>	<b>FY23</b>	<b>FY24</b>
Jul	0.99	1.64	0.45	3.42	2.52
Aug	1.69	0.65	0.59	2.42	1.66
Sep	0.53	1.28	1.85	-1.42	
Oct	1.28	1.15	1.35	4.14	
Nov	1.28	0.75	2.91	0.68	
Dec	0.68	0.37	1.06	1.61	
Jan	2.44	0.27	0.91	3.42	
Feb	-1.17	1.55	0.79	3.84	
Mar	-0.02	0.31	0.75	3.69	
Apr	-1.25	0.65	1.25	2.06	
May	0.92	0.72	1.08	2.26	
Jun	1.02	-0.01	6.71	0.13	

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

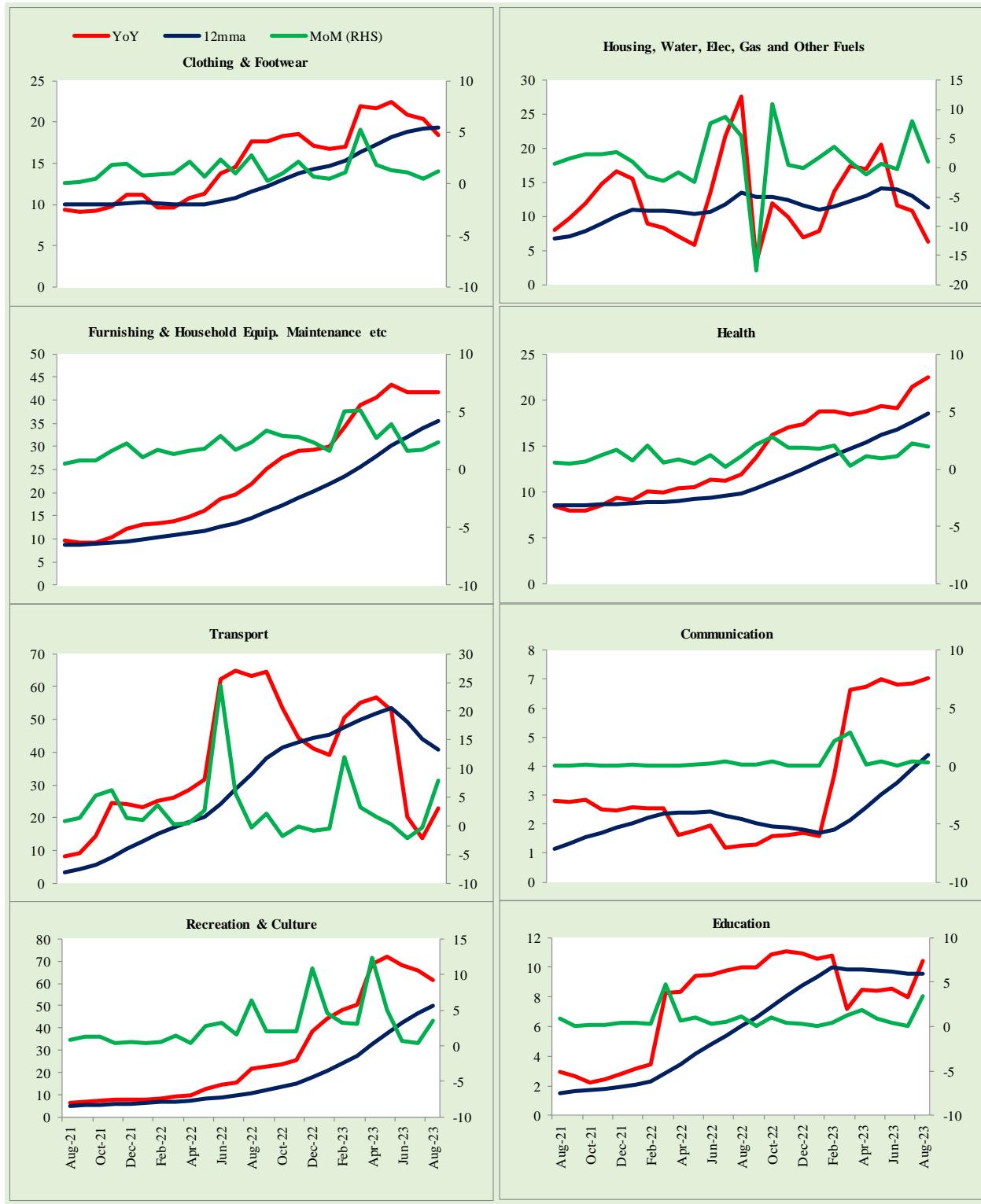
<b>Original Series</b>					
<b>Month</b>	<b>FY20</b>	<b>FY21</b>	<b>FY22</b>	<b>FY23</b>	<b>FY24</b>
Jul	1.98	2.15	1.29	4.46	3.57
Aug	1.46	0.81	0.48	2.64	1.60
Sep	0.75	1.26	2.01	-2.06	
Oct	1.59	1.27	1.67	4.50	
Nov	1.00	0.64	2.86	0.38	
Dec	-0.37	-0.35	0.32	0.35	
Jan	1.68	-0.16	0.06	2.36	
Feb	-1.09	2.27	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	1.05	1.17	0.24	3.34	2.42
Aug	1.50	0.82	0.48	2.57	1.51
Sep	0.72	1.23	1.99	-2.06	
Oct	1.22	0.91	1.32	4.14	
Nov	1.05	0.70	2.94	0.47	
Dec	0.58	0.61	1.28	1.32	
Jan	2.10	0.31	0.59	2.94	
Feb	-1.29	1.92	0.47	3.94	
Mar	0.12	0.25	0.65	3.90	
Apr	-1.28	0.78	1.06	1.47	
May	0.78	0.69	0.81	2.04	
Jun	0.96	-0.09	6.64	0.58	

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

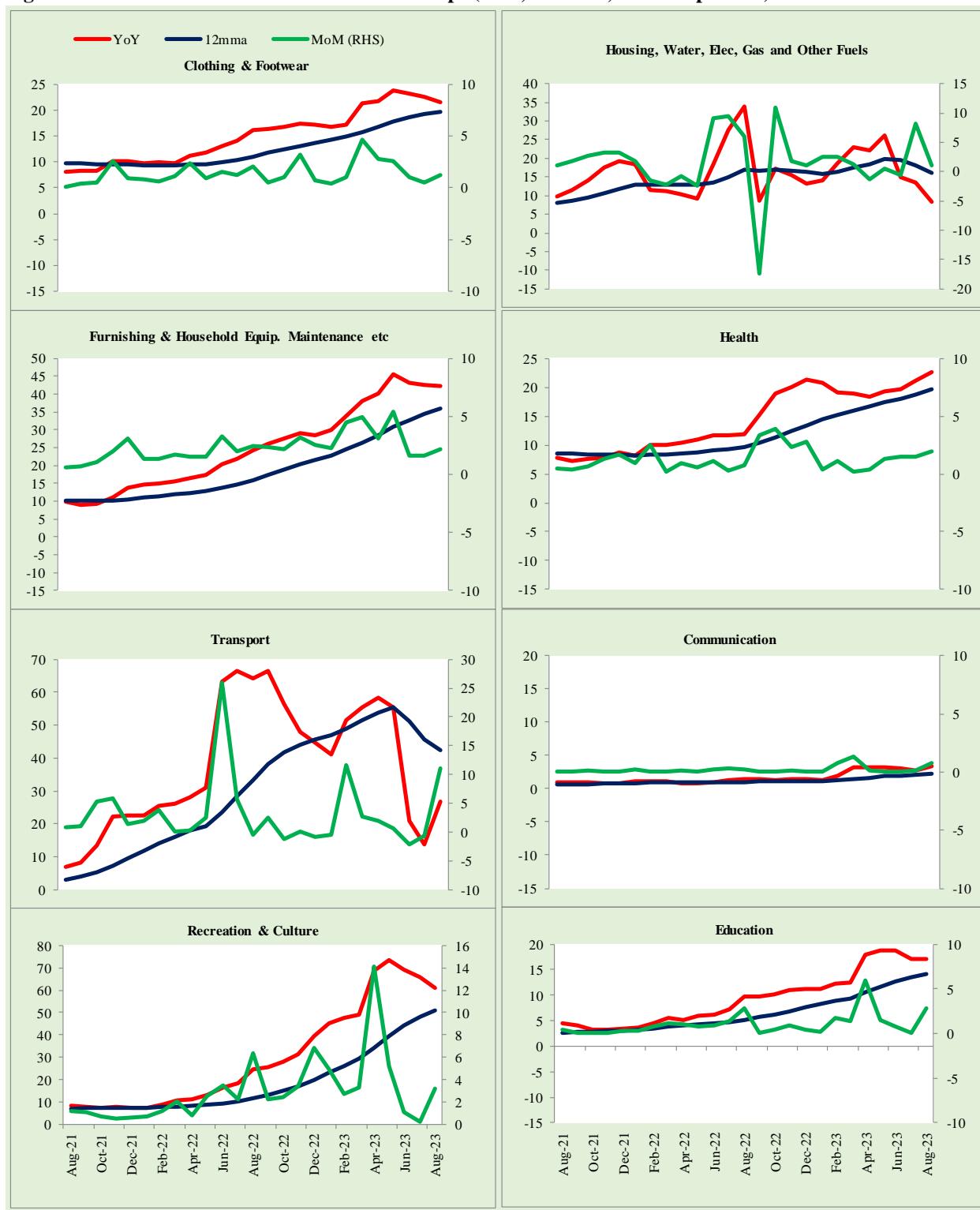
<b>Month</b>	<b>Original Series</b>				
	<b>FY20</b>	<b>FY21</b>	<b>FY22</b>	<b>FY23</b>	<b>FY24</b>
Jul	1.60	3.02	1.40	4.17	3.30
Aug	1.91	0.35	0.72	2.19	1.88
Sep	0.79	1.95	2.29	0.18	
Oct	2.17	2.35	2.25	5.01	
Nov	1.86	1.09	3.15	1.30	
Dec	-0.30	-1.17	-0.51	0.70	
Jan	2.43	-0.29	0.89	3.62	
Feb	-0.98	1.12	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>				
	<b>FY20</b>	<b>FY21</b>	<b>FY22</b>	<b>FY23</b>	<b>FY24</b>
Jul	0.90	2.35	0.76	3.53	2.66
Aug	1.98	0.41	0.76	2.20	1.87
Sep	0.25	1.35	1.65	-0.48	
Oct	1.36	1.52	1.41	4.15	
Nov	1.64	0.83	2.86	0.98	
Dec	0.83	0.01	0.73	2.02	
Jan	2.95	0.21	1.38	4.11	
Feb	-0.97	1.00	1.27	3.70	
Mar	-0.25	0.39	0.90	3.40	
Apr	-1.21	0.46	1.54	2.88	
May	1.13	0.77	1.48	2.58	
Jun	1.10	0.10	6.81	-0.48	

## Figures

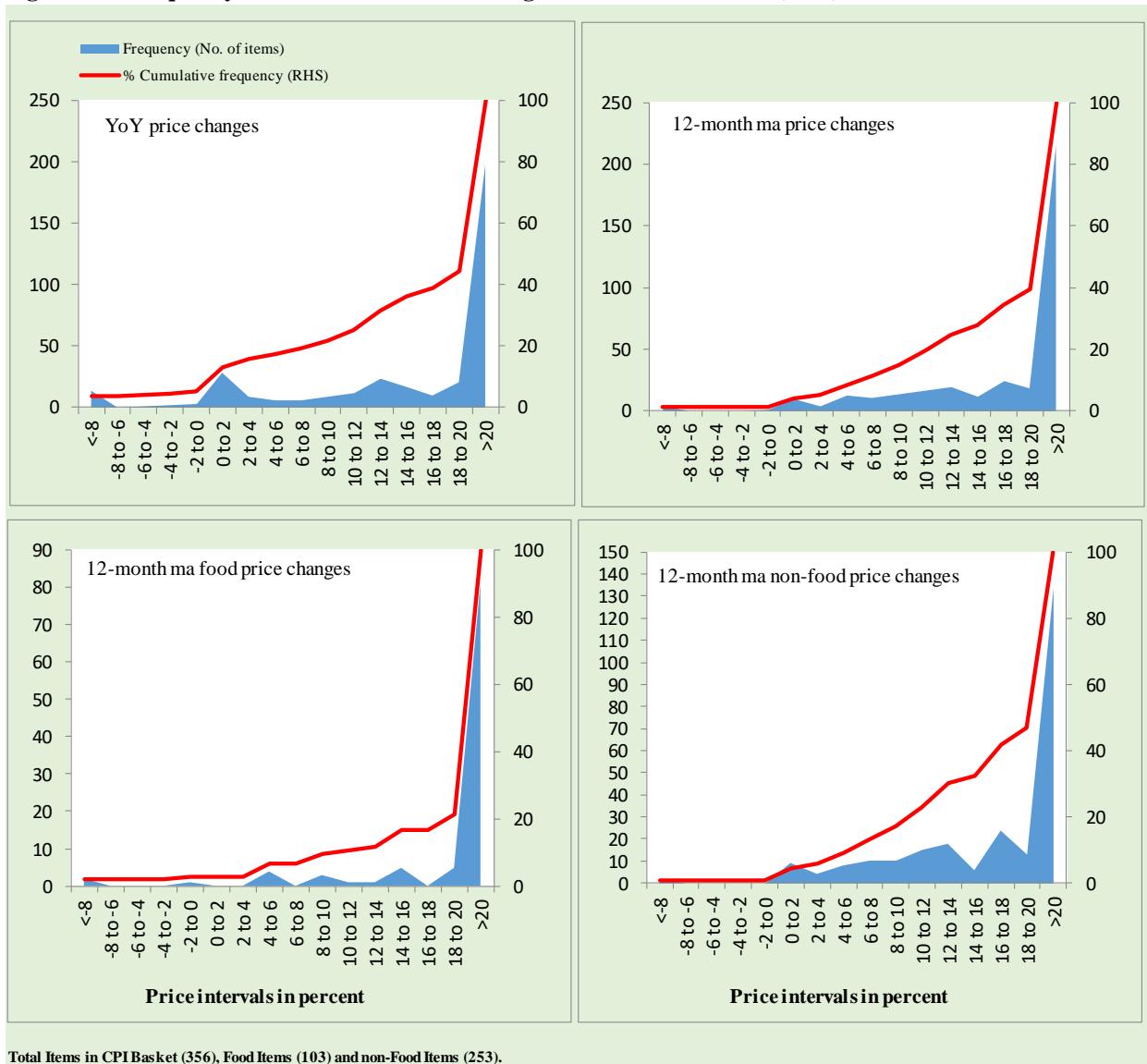
**Figure A1: National CPI Inflation – Non Food Groups (YoY, 12MMA, MoM in percent)**

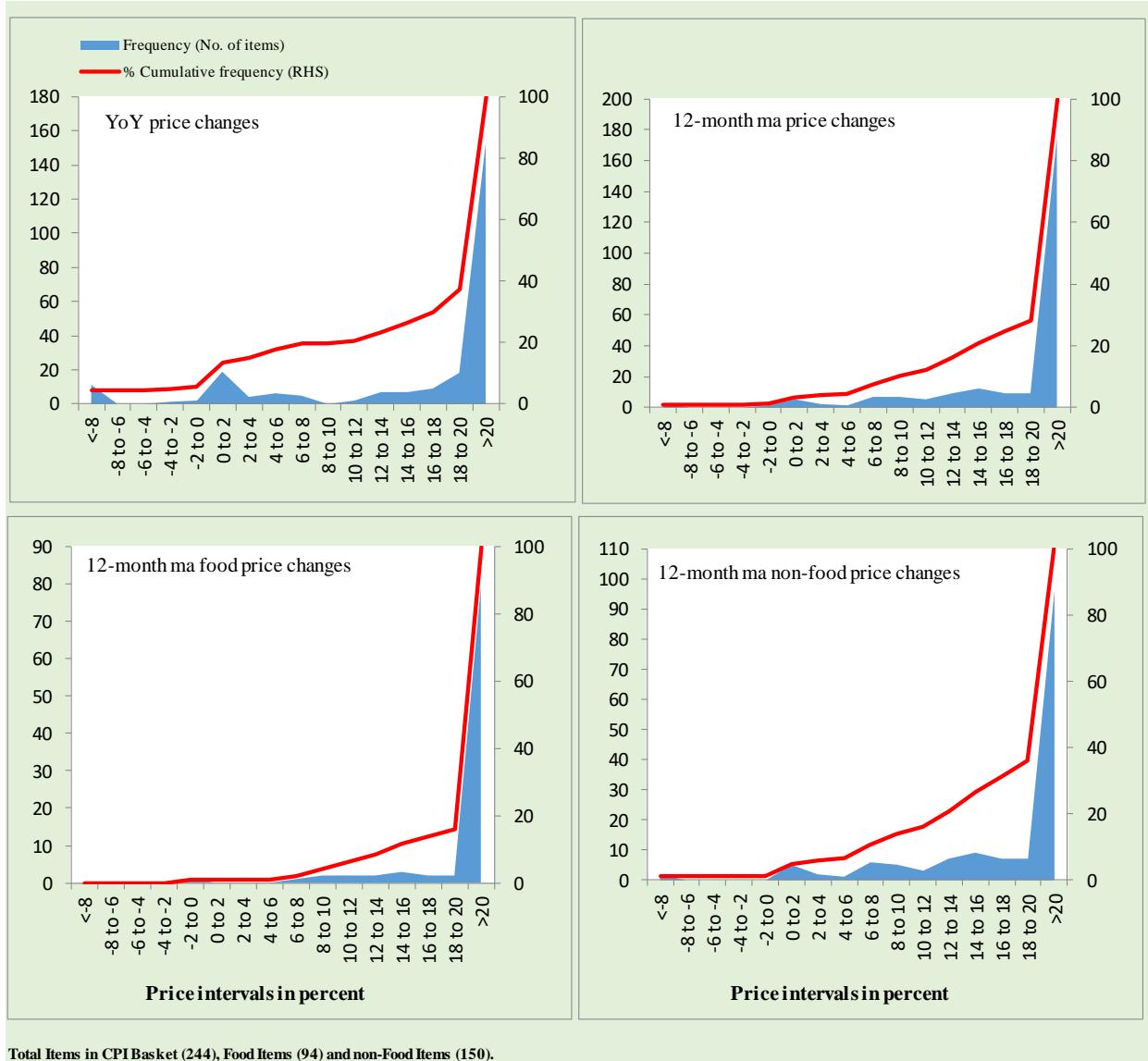


**Figure A2: Urban CPI Inflation – Non Food Groups (YoY, 12MMA, MoM in percent)**

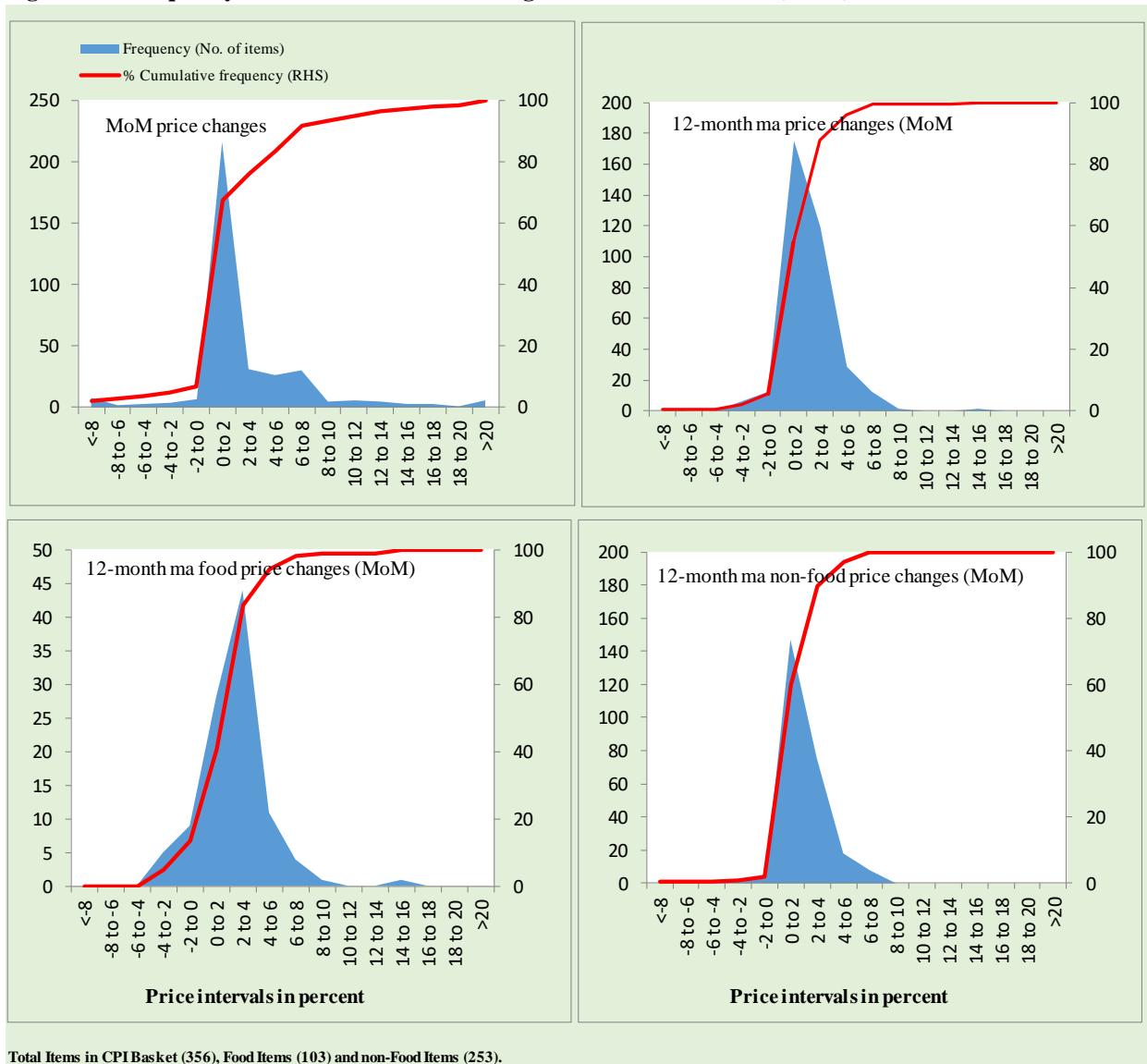
**Figure A3: Rural CPI Inflation – Non Food Groups (YoY, 12MMA, MoM in percent)**

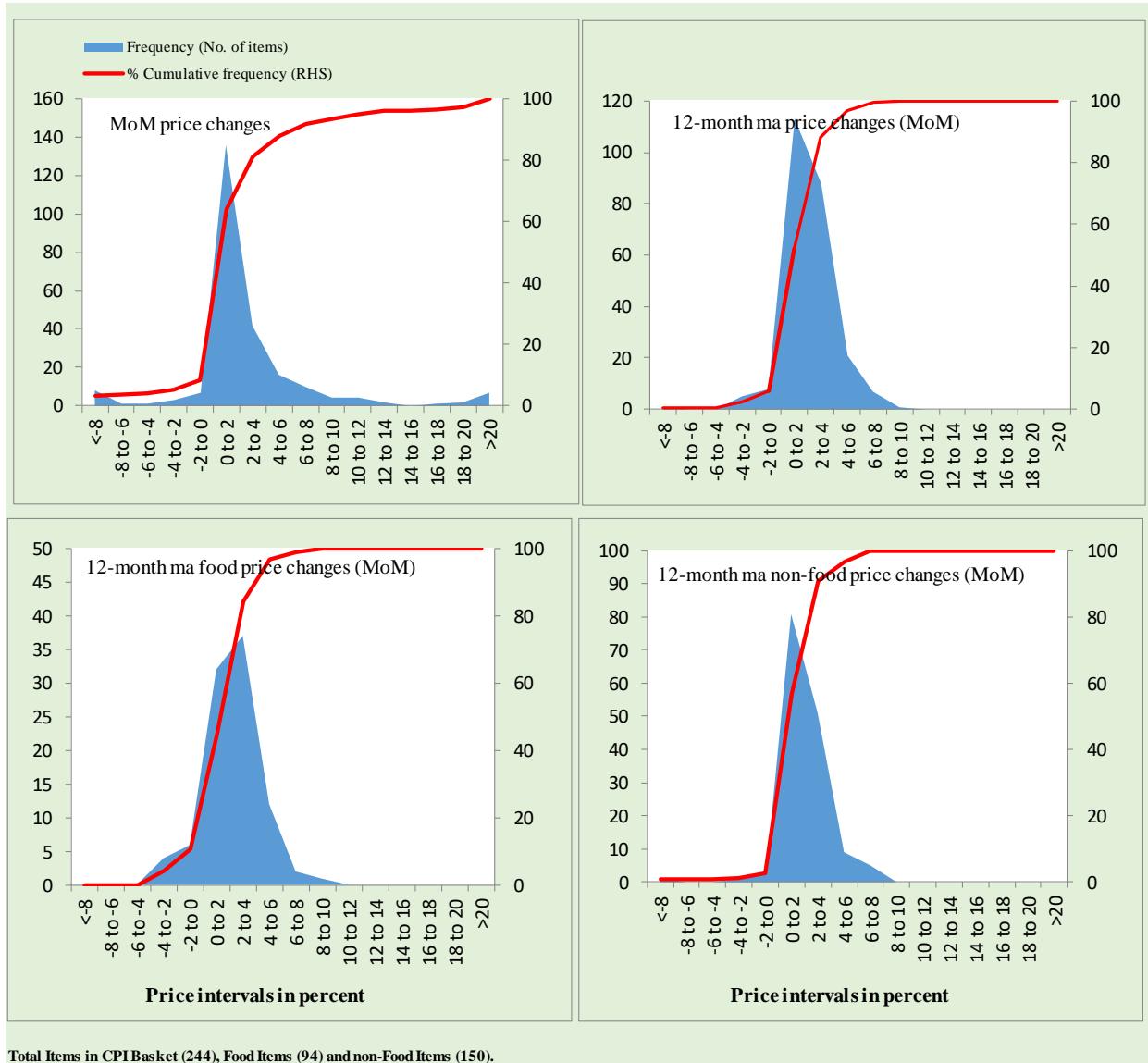
**Figure A4: Frequency Distribution of Price Changes of Urban CPI Items (YoY)**



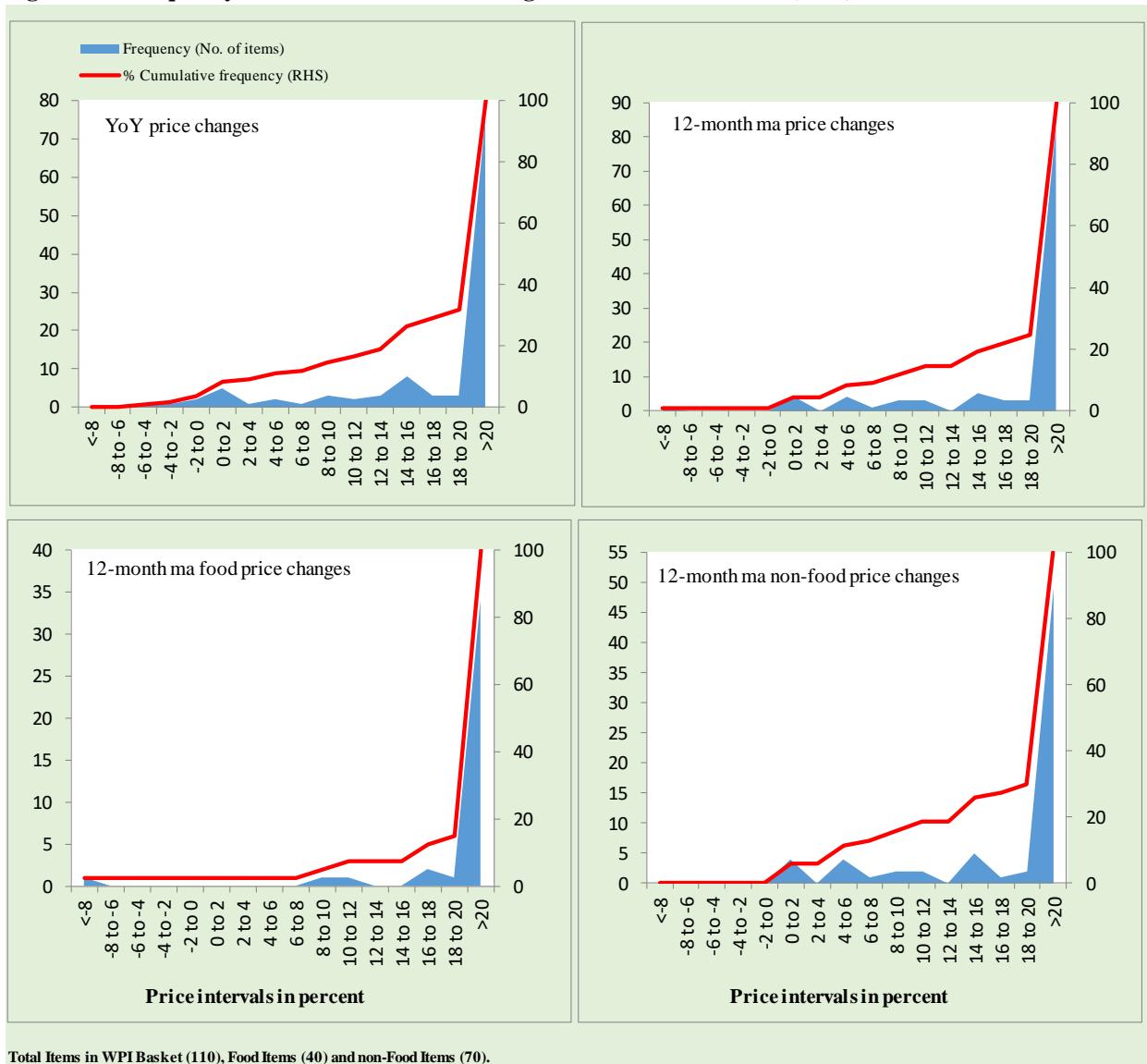
**Figure A5: Frequency Distribution of Price Changes of Rural CPI Items (YoY)**

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



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

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



## Technical Notes

- 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.

- Base year for all the indices is the year 2015-16.
- CPI baskets for urban and rural areas contains 356 and 244 consumers' items respectively; WPI basket contains 419 items; SPI contains 51 items.
- 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:

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

- 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.

- 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:

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

- 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:

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

- 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:

- 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.