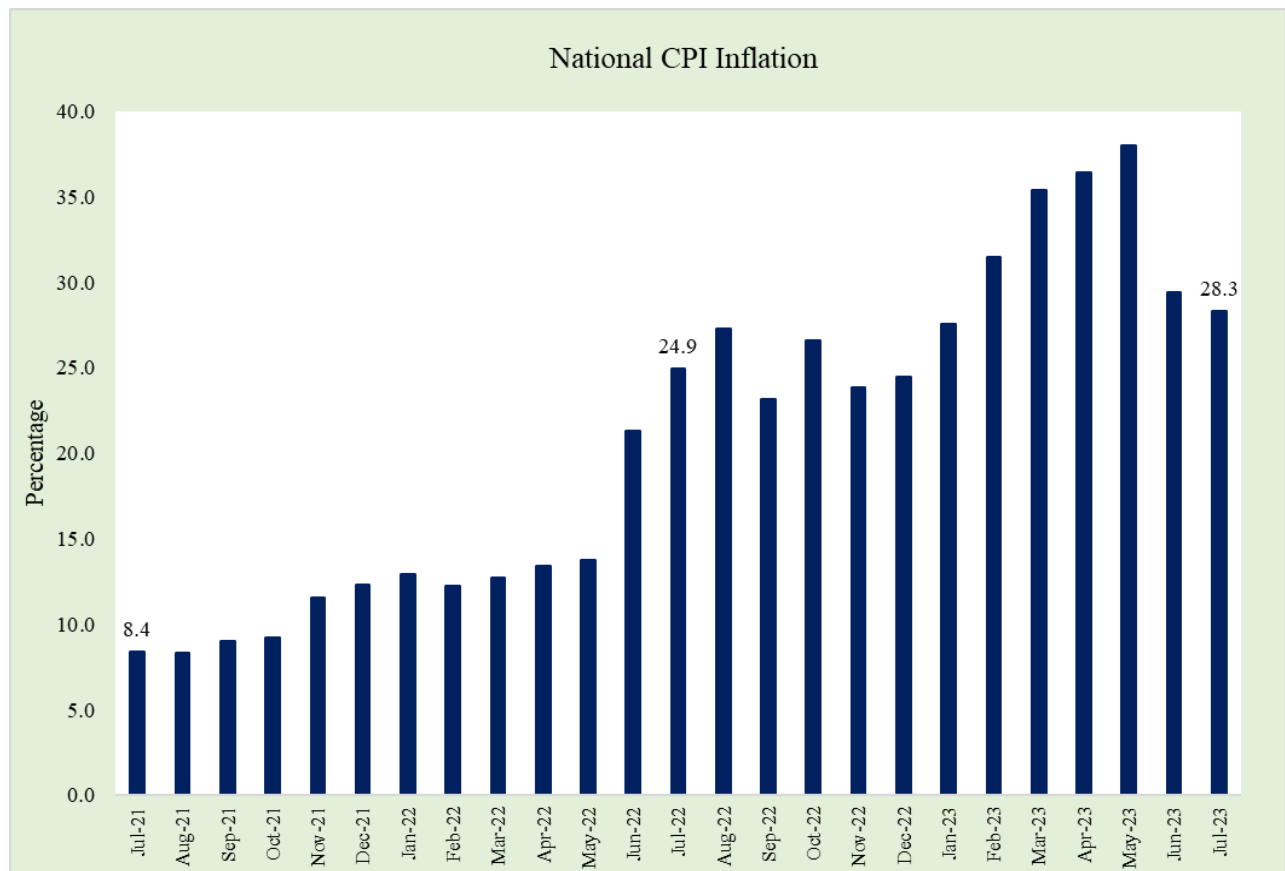




Inflation Monitor

July 2023



State Bank of Pakistan
Data Services and Innovations Department

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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 & World Bank websites for global inflation analysis

For feedback and queries: feedback.statistics@sbp.org.pk



Table of Contents

1. Inflation in Brief	5
2. CPI Inflation Heat Maps	6
3. Inflation Trends	10
4. Movements in Price Indices (Moving Averages)	11
5. Movement in Price Indices (Month-on-Month)	12
6. Consumer Price Indices and Inflation	14
7. Weighted Contribution	17
8. Inflation Diffusion Index	19
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
List of Illustrations	28
Tables	28
Table A1: Inflation – Summary	28
Table A2: National CPI Inflation by Groups (YoY and MoM in percent)	29
Table A3: Urban CPI Inflation by Groups (YoY and MoM in percent)	29
Table A4: Rural CPI Inflation by Groups (YoY and MoM in percent)	30
Table A5: National CPI Inflation by Groups	31
Table A6: Urban CPI Inflation by Groups	32
Table A7: Rural CPI Inflation by Groups	33
Table A8: Top Ten Contributors to Urban CPI Inflation (YoY)	34
Table A9: Top Ten Contributors to Urban CPI Inflation (MoM)	35
Table A10: Top and Bottom Fifteen Contributors to Urban CPI Inflation (YoY)	36
Table A11: Top and Bottom Fifteen Contributors to Urban CPI Inflation (MoM)	37
Table A12: Top and Bottom Fifteen Contributors to MoM Urban CPI Food Inflation	38
Table A13: Top and Bottom Fifteen Contributors to MoM Urban CPI Non-Food Inflation	39
Table A14: Top Ten Contributors to Rural CPI Inflation (YoY)	40
Table A15: Top Ten Contributors to Rural CPI Inflation (MoM)	41
Table A16: Top and Bottom Fifteen Contributors to Rural CPI Inflation (YoY)	42
Table A17: Top and Bottom Fifteen Contributors to Rural CPI (MoM) Inflation	43
Table A18: Top and Bottom Fifteen Contributors to MoM Rural CPI Food Inflation	44
Table A19: Top and Bottom Fifteen Contributors to MoM Rural CPI Non-Food Inflation	45
Table A20: Distribution of Price Changes (YoY) - Selected Urban CPI Item	46
Table A21: Distribution of Price Changes (YoY) - Selected Rural CPI Items	47
Table A22: Distribution of Price Changes (YoY) - WPI Items	48
Table A23: International Commodity Prices/Indices	49
Table A24: National CPI Data Series Original and Seasonally Adjusted	50
Table A25: Urban CPI Data Series Original and Seasonally Adjusted	51
Table A26: Rural CPI Data Series Original and Seasonally Adjusted	52
Table A27: National CPI Monthly & Average Seasonal Factors	53
Table A28: Urban CPI Monthly & Average Seasonal Factors	53

Table A29: Rural CPI Monthly & Average Seasonal Factors	54
Table A30: National CPI (MoM) Original & Seasonally Adjusted	55
Table A31: Urban CPI (MoM) Original & Seasonally Adjusted Series	56
Table A32: Rural CPI (MoM) Original & Seasonally Adjusted Series	57
Figures	58
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

Sohail Haider

Deputy Director

Publication Manager

Salman Ahmed

Sr. Joint Director

Publication Reviewer

Syed Aamir Ali Bukhari

Joint Director

Data Support

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For feedback and queries: feedback.statistics@sbp.org.pk

1. Inflation in Brief

- I. National CPI Inflation on year-on-year (YoY) basis decreased to 28.3 percent in July 2023 from 29.4 percent in the previous month. It was recorded at 24.9 percent in the corresponding month of last year. On month-on-month (MoM) basis, National CPI Inflation increased to 3.5 percent in July 2023 from a marginal increase of 0.3 percent in the previous month. It was recorded at 4.3 percent during the corresponding month of last year.
- II. Urban CPI Inflation (YoY) decreased to 26.3 percent in July 2023 from 27.3 percent in the previous month. It stood at 23.6 percent during the corresponding month of last year. On MoM basis, it increased to 3.6 percent in July 2023 from 0.1 percent in the previous month. It stood at 4.5 percent during the corresponding month of last year. Seasonally adjusted MoM Urban CPI showed an inflation of 2.4 percent in July 2023 compared to an inflation of 0.6 percent in the previous month.
- III. Rural CPI Inflation (YoY) decreased to 31.3 percent in July 2023 from 32.4 percent in previous month. It was recorded at 26.9 percent during the corresponding month of last year. On MoM basis, it increased to 3.3 percent in July 2023 from -0.8 percent in the previous month. It stood at 4.2 percent during the corresponding month of last year. Seasonally adjusted MoM Rural CPI showed an inflation of 2.5 percent in July 2023 as compared to a deflation of 0.4 percent in previous month.
- IV. Urban Core (NFNE) Inflation on YoY basis decreased to 18.4 percent in July 2023 from 18.5 percent in the previous month. It stood at 12.0 percent during the corresponding month of last year. On MoM basis, it increased to 1.2 percent in July 2023 from 0.7 percent in the previous month. It stood at 1.2 percent during the corresponding month of last year.
- V. Rural Core (NFNE) Inflation on YoY basis decreased to 24.6 percent in July 2023 from 25.2 percent in the previous month. It stood at 14.6 percent during the corresponding month of last year. On MoM basis, it increased to 1.2 percent in July 2023 from 0.9 percent in previous month. It was recorded at 1.6 percent during the corresponding month of last year.
- VI. Urban Core Inflation (trimmed) on YoY basis decreased to 21.7 percent in July 2023 from 22.9 percent in previous month. It stood at 19.1 percent during the corresponding month of last year. On MoM basis, it increased to 1.9 percent in July 2023 from 0.8 percent in previous month. It stood at 2.7 percent during the corresponding month of last year.
- VII. Rural Core Inflation (trimmed) on YoY basis decreased to 28.7 percent in July 2023 from 29.9 percent in the previous month. It was recorded at 21.7 percent during the corresponding month of last year. On MoM basis, it increased to 2.4 percent in July 2023 from 0.1 percent in the previous month. It stood at 2.7 percent during the corresponding month of last year.
- VIII. WPI Inflation on YoY basis increased to 23.1 percent in July 2023 from 22.4 percent in the previous month. It stood at 38.5 percent during the corresponding month of last year. On MoM basis, it increased to 2.5 percent in July 2023 from a marginal increase of 0.3 percent in the previous month. It stood at 2.0 percent during the corresponding month of last year.
- IX. SPI (combined) Inflation on YoY basis decreased to 29.0 percent in July 2023 from 36.0 percent in the previous month. During the corresponding month of last year, SPI Inflation stood at 34.3 percent. On MoM basis, it increased to 2.1 percent in July 2023 from 0.04 percent in the previous month. It stood at 7.7 percent during the corresponding month of last year.

2. CPI Inflation Heat Maps

Heat map is a data visualization technique that represents the magnitude of individual values against benchmark values. A heat map for National, Urban and Rural CPI inflation (YoY and MoM) and their important sub-indices for the last thirteen months is presented here. The observed inflation is compared with inflation target of 21.0 percent for FY24¹.

National, Urban and Rural CPI Inflation (YoY)														
		Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23
Headline	National	24.9	27.3	23.2	26.6	23.8	24.5	27.6	31.5	35.4	36.4	38.0	29.4	28.3
	Urban	23.6	26.2	21.2	24.6	21.6	21.6	24.4	28.8	33.0	33.5	35.1	27.3	26.3
	Rural	26.9	28.8	26.1	29.5	27.2	28.8	32.3	35.6	38.9	40.7	42.2	32.4	31.3
Food	Urban	27.4	28.8	30.8	34.7	29.7	32.7	39.0	41.9	47.1	46.8	48.1	40.8	40.2
	Rural	29.6	30.2	32.7	37.2	33.5	37.9	45.2	47.0	50.2	52.2	52.4	41.5	41.3
Core	Urban	12.0	13.8	14.4	14.9	14.6	14.7	15.4	17.1	18.6	19.5	20.0	18.5	18.4
	Rural	14.6	16.5	17.6	18.2	18.5	19.0	19.4	21.5	23.1	24.9	26.9	25.2	24.6

Source: Pakistan Bureau of Statistics



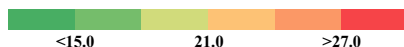
National, Urban and Rural CPI Inflation (MoM)														
		Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23
Headline	National	4.3	2.5	-1.2	4.7	0.8	0.5	2.9	4.3	3.7	2.4	1.6	-0.3	3.5
	Urban	4.5	2.6	-2.1	4.5	0.4	0.3	2.4	4.5	3.9	2.0	1.5	0.1	3.6
	Rural	4.2	2.2	0.2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

Source: Pakistan Bureau of Statistics



National CPI Inflation (YoY)														
	Weights	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23
General	100.00	24.9	27.3	23.2	26.6	23.8	24.5	27.6	31.5	35.4	36.4	38.0	29.4	28.3
Food and Non-Alcoholic Beverages	34.58	28.7	29.5	31.7	36.2	31.2	35.5	42.9	45.1	47.2	48.1	48.7	39.5	39.5
Alcoholic Beverages, Tobacco	1.02	22.5	25.8	32.7	34.6	35.9	36.2	36.3	49.2	140.0	133.5	124.0	109.5	102.1
Clothing and Footwear	8.60	14.6	17.6	17.7	18.3	18.6	17.1	16.8	17.0	21.9	21.6	22.5	21.0	20.4
Housing, Water, Elec., Gas and Other Fuels	23.63	21.8	27.6	3.4	11.9	9.9	7.0	7.8	13.6	17.5	16.9	20.5	11.6	10.8
Furnishing and Household Equipment Maintenance	4.10	19.7	21.9	25.1	27.6	29.1	29.2	29.9	34.0	39.0	40.5	43.5	41.6	41.7
Health	2.79	11.2	11.9	13.8	16.2	17.1	17.5	18.7	18.8	18.5	18.8	19.3	19.1	21.5
Transport	5.91	64.7	63.1	64.5	53.4	44.2	41.2	39.1	50.5	54.9	56.8	52.9	20.3	13.6
Communication	2.21	1.2	1.2	1.3	1.6	1.6	1.7	1.6	3.7	6.6	6.7	7.0	6.8	6.8
Recreation and Culture	1.59	15.4	21.8	22.8	23.7	25.6	38.5	44.2	48.1	50.6	68.6	72.2	68.0	65.9
Education	3.79	9.8	10.0	10.0	10.9	11.1	10.9	10.6	10.8	7.2	8.5	8.4	8.6	8.0
Restaurants and Hotels	6.92	25.0	27.4	28.8	30.4	28.4	27.4	30.1	34.5	38.5	39.0	42.3	36.4	34.7
Misc. Goods and Services	4.87	17.2	20.0	22.9	22.4	23.0	25.8	28.7	33.3	34.4	38.8	43.3	40.1	39.3

Source: Pakistan Bureau of Statistics



¹ As per Annual Plan 2023-24 published by Planning Commission of Pakistan.

Urban CPI Inflation (YoY)														
Weights	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	
General	100.00	23.6	26.2	21.2	24.6	21.6	21.6	24.4	28.8	33.0	33.5	35.1	27.3	26.3
Food and Non-Alcoholic Beverages	30.42	27.8	28.9	30.7	34.8	28.9	32.6	39.5	42.1	45.5	45.1	45.8	38.6	38.7
Alcoholic Beverages, Tobacco	0.85	21.7	25.8	34.1	35.4	37.2	37.3	37.3	54.9	140.8	133.7	124.5	107.6	102.6
Clothing and Footwear	8.01	15.0	18.8	18.9	19.5	19.6	17.0	16.8	16.8	22.4	21.5	21.3	19.1	18.6
Housing, Water, Elec., Gas and Other Fuels	27.03	19.2	24.8	1.0	9.5	7.3	4.1	5.0	11.2	15.0	14.5	18.0	10.2	9.6
Furnishing and Household Equipment Maintenance	4.09	18.2	20.3	24.3	27.6	29.0	29.7	30.0	34.1	39.6	40.8	42.1	40.6	41.1
Health	2.31	10.8	11.8	12.3	13.6	14.1	13.5	16.7	18.5	17.9	19.1	19.4	18.5	21.9
Transport	6.14	63.8	62.4	63.3	51.7	42.1	39.2	38.0	49.9	54.6	55.9	51.4	20.0	13.6
Communication	2.35	1.1	1.2	1.2	1.7	1.8	1.8	1.8	4.6	8.5	8.6	9.0	8.8	9.0
Recreation and Culture	1.73	13.9	20.4	21.1	21.4	22.3	38.0	43.6	48.4	51.4	68.5	71.6	67.3	65.8
Education	4.88	10.5	10.1	10.0	11.1	11.1	10.8	10.4	10.4	5.8	6.0	5.7	5.9	5.6
Restaurants and Hotels	7.41	24.7	27.4	29.1	31.8	29.5	28.6	32.4	35.2	39.8	40.4	46.1	38.8	35.8
Misc. Goods and Services	4.77	16.8	20.1	23.1	23.7	23.8	25.9	28.8	33.3	34.3	39.1	43.0	39.5	39.1

Source: Pakistan Bureau of Statistics

Rural CPI Inflation (YoY)														
Weights	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	
General	100.00	26.9	28.8	26.1	29.5	27.2	28.8	32.3	35.6	38.9	40.7	42.2	32.4	31.3
Food and Non-Alcoholic Beverages	40.87	29.9	30.2	32.8	37.9	33.7	38.7	46.8	48.3	49.0	51.4	51.9	40.4	40.5
Alcoholic Beverages, Tobacco	1.28	23.4	25.8	31.1	33.7	34.4	35.0	35.2	42.7	139.1	133.3	123.3	111.8	101.5
Clothing and Footwear	9.48	14.0	16.2	16.3	16.8	17.4	17.2	16.7	17.2	21.3	21.8	23.9	23.3	22.5
Housing, Water, Elec., Gas and Other Fuels	18.49	27.6	33.9	8.6	17.3	15.6	13.2	14.0	18.6	22.9	22.2	26.0	14.8	13.5
Furnishing and Household Equipment Maintenance	4.10	22.0	24.2	26.2	27.7	29.2	28.6	29.8	33.9	38.1	40.2	45.5	43.1	42.6
Health	3.51	11.7	12.0	15.2	18.9	20.2	21.4	20.7	19.1	19.0	18.4	19.3	19.7	21.2
Transport	5.56	66.3	64.2	66.6	56.4	47.9	44.6	41.0	51.4	55.5	58.4	55.5	20.9	13.6
Communication	1.99	1.2	1.4	1.4	1.3	1.4	1.4	1.2	1.9	3.2	3.2	3.2	3.0	2.8
Recreation and Culture	1.38	18.2	24.3	25.7	27.7	31.3	39.4	45.1	47.4	49.2	68.9	73.2	69.2	65.9
Education	2.13	7.2	9.8	9.8	10.2	11.1	11.3	11.2	12.2	12.5	18.0	18.8	18.8	17.1
Restaurants and Hotels	6.19	25.4	27.5	28.2	27.9	26.4	25.2	26.0	33.4	36.1	36.6	35.9	32.1	33.0
Misc. Goods and Services	5.02	17.7	19.7	22.6	20.5	21.9	25.6	28.5	33.3	34.6	38.5	43.8	40.9	39.5

Source: Pakistan Bureau of Statistics

National CPI Inflation (MoM)														
Weights	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	
General	100.00	4.34	2.5	-1.2	4.70	0.8	0.5	2.9	4.3	3.7	2.4	1.6	-0.3	3.5
Food and Non-Alcoholic Beverages	34.58	4.0	1.3	5.8	5.6	0.1	-0.1	5.0	4.1	3.7	4.4	1.3	-1.0	4.1
Alcoholic Beverages, Tobacco	1.02	4.1	2.7	5.9	1.8	1.1	0.5	0.2	9.7	60.9	0.3	0.6	0.1	0.4
Clothing and Footwear	8.60	1.1	2.8	0.3	1.0	2.2	0.7	0.5	1.2	5.3	1.9	1.4	1.1	0.6
Housing, Water, Elec., Gas and Other Fuels	23.63	8.8	5.5	-17.7	10.9	0.6	0.0	1.8	3.7	1.1	-1.1	0.7	-0.2	8.0
Furnishing and Household Equipment Maintenance	4.10	1.7	2.3	3.4	2.9	2.8	2.4	1.6	5.0	5.1	2.7	3.9	1.6	1.7
Health	2.79	0.2	1.2	2.2	2.8	1.9	1.9	1.8	2.1	0.3	1.1	0.9	1.1	2.2
Transport	5.91	5.7	-0.3	2.2	-1.8	-0.1	-0.8	-0.5	12.0	3.3	1.6	0.2	-2.1	-0.2
Communication	2.21	0.4	0.1	0.1	0.4	0.0	0.1	0.0	2.1	2.9	0.1	0.4	0.1	0.4
Recreation and Culture	1.59	1.6	6.3	2.0	1.9	2.0	10.9	4.5	3.3	3.1	12.4	5.0	0.7	0.3
Education	3.79	0.5	1.1	0.0	1.0	0.4	0.3	0.1	0.5	1.3	1.9	1.0	0.4	0.0
Restaurants and Hotels	6.92	2.9	2.3	2.2	2.5	1.9	1.3	3.1	5.1	3.8	0.6	4.2	1.4	1.7
Misc. Goods and Services	4.87	1.6	2.7	3.8	0.9	2.3	3.0	3.2	4.7	2.5	4.1	4.5	1.0	1.0


Source: Pakistan Bureau of Statistics

Urban CPI Inflation (MoM)														
Weights	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	
General	100.00	4.5	2.6	-2.1	4.5	0.4	0.3	2.4	4.5	3.9	2.0	1.5	0.1	3.6
Food and Non-Alcoholic Beverages	30.42	4.3	1.5	5.4	4.8	-0.3	-0.3	4.1	4.2	4.5	4.0	1.4	-0.2	4.3
Alcoholic Beverages, Tobacco	0.85	2.9	3.4	6.8	1.3	1.6	0.2	0.1	13.0	55.6	0.3	0.5	0.0	0.4
Clothing and Footwear	8.01	1.0	3.4	0.1	1.0	1.3	0.7	0.6	1.3	5.8	1.1	0.4	1.1	0.6
Housing, Water, Elec., Gas and Other Fuels	27.03	8.6	5.2	-17.8	10.9	-0.1	-0.5	1.4	4.3	1.1	-1.1	0.7	-0.1	8.0
Furnishing and Household Equipment Maintenance	4.09	1.5	2.3	4.1	3.3	2.6	2.3	1.1	5.3	5.2	2.5	2.9	1.6	1.8
Health	2.31	0.1	1.6	1.0	1.7	1.6	1.1	3.4	3.2	0.4	1.9	0.6	0.7	2.9
Transport	6.14	5.6	-0.2	2.0	-2.2	-0.1	-0.7	-0.4	12.3	3.6	1.4	0.0	-2.2	0.0
Communication	2.35	0.4	0.0	0.1	0.6	0.0	0.1	0.0	2.8	3.7	0.2	0.6	0.1	0.6
Recreation and Culture	1.73	1.2	6.3	2.0	1.7	1.1	13.4	4.3	3.6	3.0	11.5	4.9	0.5	0.4
Education	4.88	0.3	0.7	0.0	1.1	0.2	0.2	0.1	0.1	1.3	0.8	0.8	0.2	0.0
Restaurants and Hotels	7.41	3.3	2.3	2.8	3.0	1.8	1.6	3.6	4.2	4.2	0.6	4.7	1.3	1.1
Misc. Goods and Services	4.77	1.4	3.4	3.9	1.4	1.7	2.4	3.1	4.7	2.6	4.2	3.9	1.2	1.1

Source: Pakistan Bureau of Statistics


Rural CPI Inflation (MoM)														
	Weights	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23
General	100.00	4.2	2.2	0.2	5.0	1.3	0.7	3.6	4.0	3.5	3.0	1.7	-0.8	3.3
Food and Non-Alcoholic Beverages	40.87	3.8	1.2	6.2	6.6	0.4	0.0	6.0	3.9	2.9	4.7	1.1	-1.9	3.8
Alcoholic Beverages, Tobacco	1.28	5.5	1.9	4.8	2.5	0.6	0.9	0.4	5.9	67.5	0.3	0.8	0.2	0.4
Clothing and Footwear	9.48	1.2	2.0	0.5	1.0	3.2	0.8	0.4	1.0	4.7	2.8	2.6	1.1	0.6
Housing, Water, Elec., Gas and Other Fuels	18.49	9.4	6.0	-17.5	10.9	1.8	1.1	2.6	2.6	1.2	-1.3	0.6	-0.6	8.1
Furnishing and Household Equipment Maintenance	4.10	2.0	2.4	2.4	2.2	3.2	2.6	2.3	4.5	4.9	3.1	5.4	1.6	1.6
Health	3.51	0.3	0.8	3.4	3.9	2.3	2.8	0.4	1.1	0.2	0.4	1.3	1.5	1.5
Transport	5.56	5.7	-0.5	2.5	-1.3	0.0	-0.9	-0.5	11.6	2.7	2.0	0.6	-2.1	-0.6
Communication	1.99	0.4	0.2	0.1	0.0	0.1	0.0	0.1	0.7	1.3	0.1	0.0	0.0	0.1
Recreation and Culture	1.38	2.2	6.4	2.2	2.4	3.4	6.8	4.9	2.7	3.3	14.1	5.2	1.0	0.2
Education	2.13	1.4	2.8	0.0	0.5	0.8	0.4	0.2	1.7	1.4	5.9	1.5	0.8	0.0
Restaurants and Hotels	6.19	2.2	2.4	1.2	1.7	2.3	0.7	2.3	6.9	3.3	0.7	3.4	1.5	2.8
Misc. Goods and Services	5.02	2.0	1.9	3.7	0.2	3.2	3.9	3.3	4.6	2.4	3.9	5.2	0.8	0.9

Source: Pakistan Bureau of Statistics




Rural CPI Inflation (YoY)														
	Weights	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23
Rural	100.00	26.9	28.8	26.1	29.5	27.2	28.8	32.3	35.6	38.9	40.7	42.2	32.4	31.3
Food	45.95	29.6	30.2	32.7	37.2	33.5	37.9	45.2	47.0	50.2	52.2	52.4	41.5	41.3
Non-perishable	40.16	29.3	29.6	29.7	31.9	31.8	35.7	44.4	47.6	48.2	54.8	54.4	43.0	43.3
Perishable	5.79	33.5	34.3	52.6	74.2	43.8	59.5	64.3	53.1	54.5	31.9	35.3	24.0	22.2
Non Food	54.05	24.5	27.5	20.1	22.4	21.4	20.7	20.9	25.3	28.5	29.9	32.5	23.8	22.0
Energy	11.41	61.2	67.8	28.8	36.9	30.7	26.2	25.7	37.5	46.6	47.3	52.6	19.8	14.9
NFNE (Core)	42.64	14.6	16.5	17.6	18.2	18.5	19.0	19.4	21.5	23.1	24.9	26.9	25.2	24.6
HRI	8.61	5.9	5.9	5.9	5.9	5.9	5.9	6.9	6.9	6.9	7.1	7.1	7.1	7.5
Core Excl HRI	34.03	16.8	19.1	20.4	21.2	21.5	22.1	22.4	24.9	26.9	29.0	31.4	29.2	28.5

Source: Pakistan Bureau of Statistics




Urban CPI Inflation (YoY)														
	Weights	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23
Urban	100.00	23.6	26.2	21.2	24.6	21.6	21.6	24.4	28.8	33.0	33.5	35.1	27.3	26.3
Food	36.80	27.4	28.8	30.8	34.7	29.7	32.7	39.0	41.9	47.1	46.8	48.1	40.8	40.2
Non-perishable	32.34	27.0	28.2	27.9	29.4	27.1	29.6	36.7	42.0	44.9	48.5	47.9	40.7	41.1
Perishable	4.46	32.4	33.5	48.3	67.0	38.6	52.9	59.3	42.9	49.4	26.9	32.3	25.6	24.7
Non Food	63.20	21.3	24.7	15.2	18.2	16.4	14.8	15.6	20.8	24.1	24.9	26.6	18.7	17.3
Energy	9.47	70.2	80.7	18.9	34.1	24.5	15.4	16.3	37.1	50.3	52.1	61.2	19.4	13.7
NFNE (Core)	53.73	12.0	13.8	14.4	14.9	14.6	14.7	15.4	17.1	18.6	19.5	20.0	18.5	18.4
HRI	19.26	5.6	5.6	5.6	5.3	5.3	5.3	5.4	5.4	5.4	5.3	5.3	5.3	5.3
Core Excl HRI	34.47	15.5	18.2	19.2	20.1	19.6	19.7	20.8	23.3	25.4	26.8	27.5	25.0	25.0

Source: Pakistan Bureau of Statistics



Rural CPI Inflation (MoM)														
	Weights	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23
Rural	100.00	4.2	2.2	0.2	5.0	1.3	0.7	3.6	4.0	3.5	3.0	1.7	-0.8	3.3
Food	45.95	3.7	1.2	5.7	6.1	0.5	0.1	5.7	3.9	4.5	4.2	1.4	-1.6	3.5
Non-perishable	40.16	3.5	0.7	4.2	3.7	1.7	2.6	7.4	3.6	3.2	5.1	2.6	-1.7	3.7
Perishable	5.79	6.0	3.9	18.4	22.2	-5.5	-13.2	-2.2	5.5	1.5	2.5	-8.4	-3.6	4.5
Non Food	54.05	4.6	3.1	-4.9	3.9	2.1	1.4	1.5	4.1	2.4	1.6	2.0	0.1	3.0
Energy	11.41	13.4	6.4	-21.0	11.8	2.2	0.8	1.5	8.4	2.4	-1.4	0.7	-2.4	8.8
NFNE (Core)	42.64	1.6	1.8	1.4	1.5	2.1	1.5	1.5	2.6	2.4	2.7	2.5	0.9	1.2
HRI	8.61	1.4	0.0	0.0	1.3	0.0	0.0	3.1	0.0	0.0	1.2	0.0	0.0	1.7
Core Excl HRI	34.03	1.7	2.2	1.7	1.6	2.5	1.8	1.2	3.2	2.9	3.0	3.0	1.1	1.1

Source: Pakistan Bureau of Statistics



Urban CPI Inflation (MoM)														
	Weights	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23
Urban	100.00	4.5	2.6	-2.1	4.5	0.4	0.3	2.4	4.5	3.9	2.0	1.5	0.1	3.6
Food	36.80	4.3	1.6	5.2	4.5	0.0	0.0	3.9	4.3	5.6	3.4	1.9	0.1	3.7
<i>Non-perishable</i>	32.34	3.8	1.3	4.0	2.2	0.7	2.2	5.0	4.4	4.6	4.3	2.7	-0.2	4.0
<i>Perishable</i>	4.46	7.3	2.8	14.0	18.5	-4.4	-12.0	-1.4	2.9	3.5	2.5	-7.0	0.1	6.5
Non Food	63.20	4.6	3.3	-6.6	4.5	0.6	0.6	1.2	4.7	2.7	1.0	1.2	0.1	3.5
<i>Energy</i>	9.47	18.3	8.4	-31.1	19.5	-0.2	-1.9	0.4	15.2	3.1	-2.2	1.1	-2.1	12.7
<i>NFNE (Core)</i>	53.73	1.2	1.8	0.9	1.3	0.8	1.2	1.4	2.2	2.5	1.8	1.2	0.7	1.2
<i>HRI</i>	19.26	1.5	0.0	0.0	1.1	0.0	0.0	1.7	0.0	0.0	1.0	0.0	0.0	1.4
<i>Core Excl HRI</i>	34.47	1.1	2.7	1.4	1.4	1.2	1.7	1.3	3.3	3.7	2.1	1.7	1.0	1.1

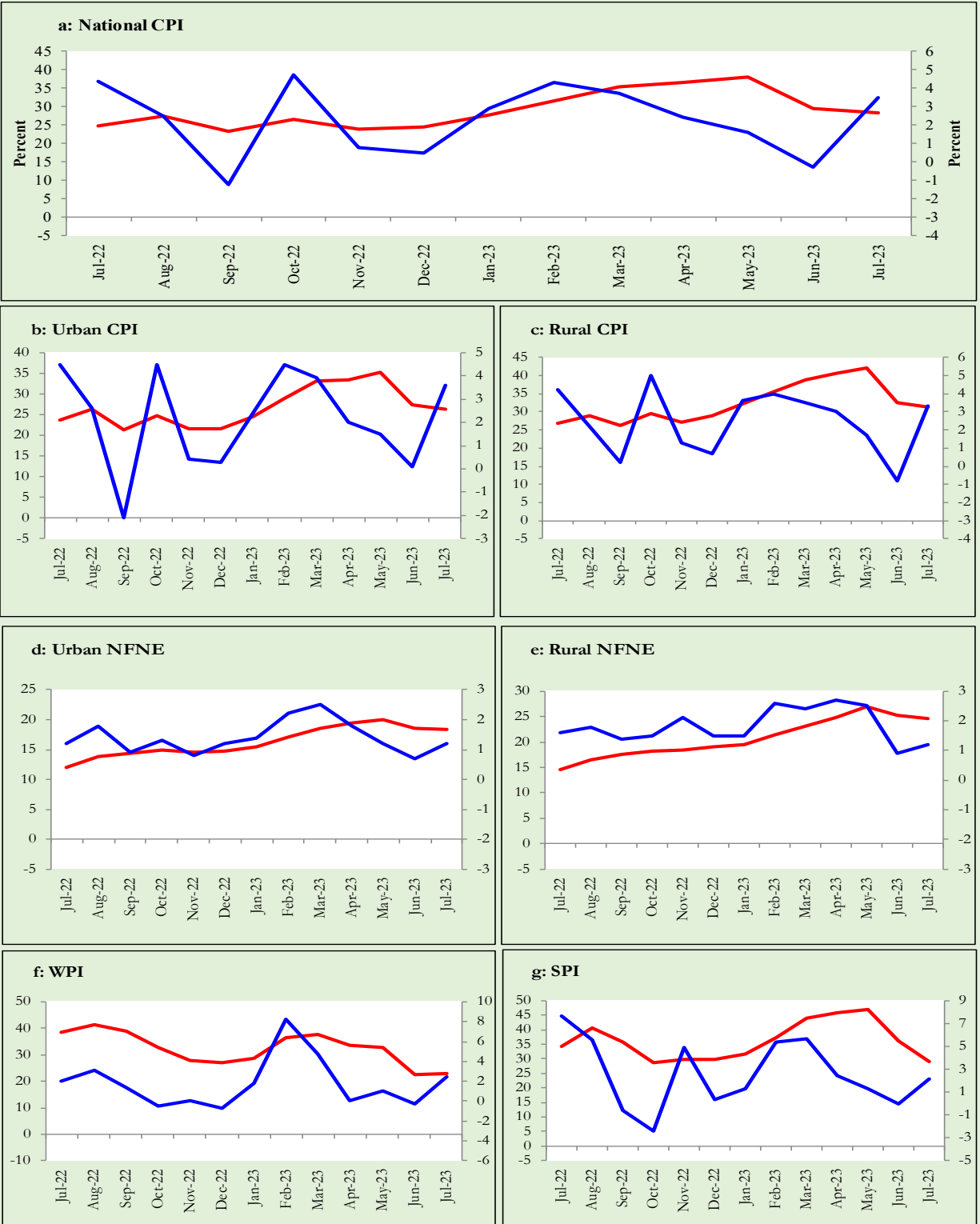
Source : Pakistan Bureau of Statistics

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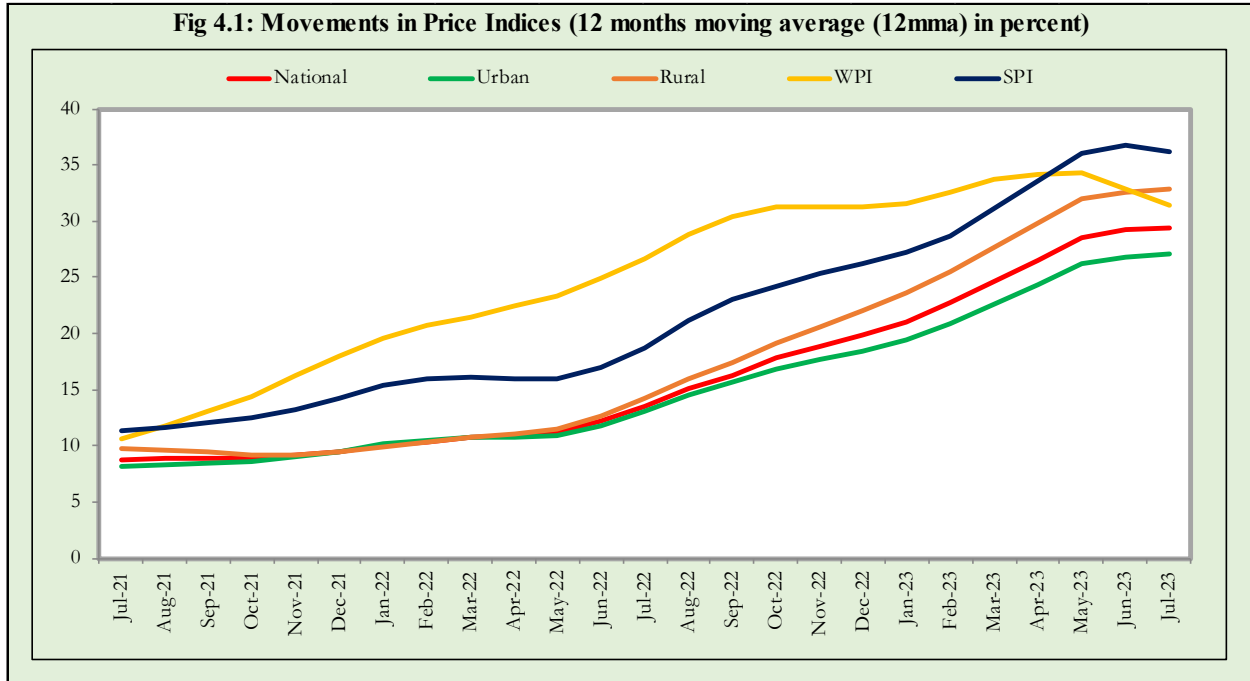
3. Inflation Trends

Fig 3.1: Summary of Inflation Trends (in percent)

— YoY — MoM (RHS)



4. Movements in Price Indices (Moving Averages)



5. Movement in Price Indices (Month-on-Month)

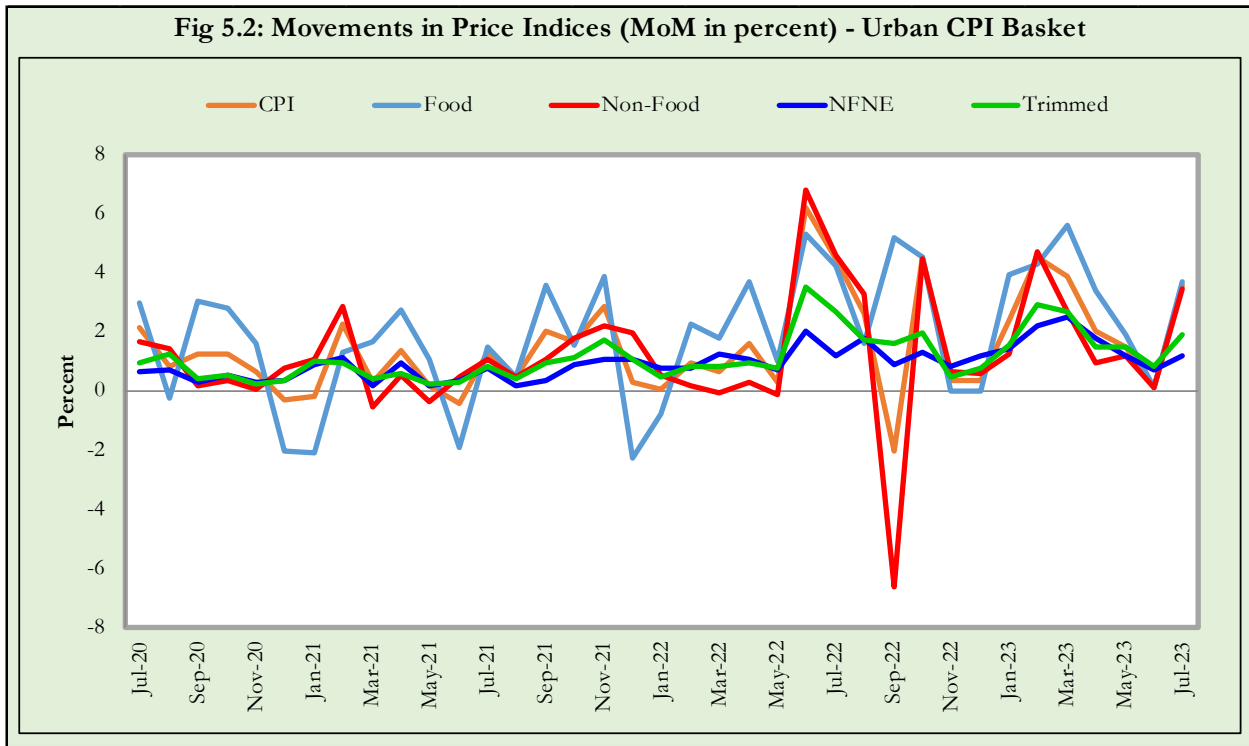
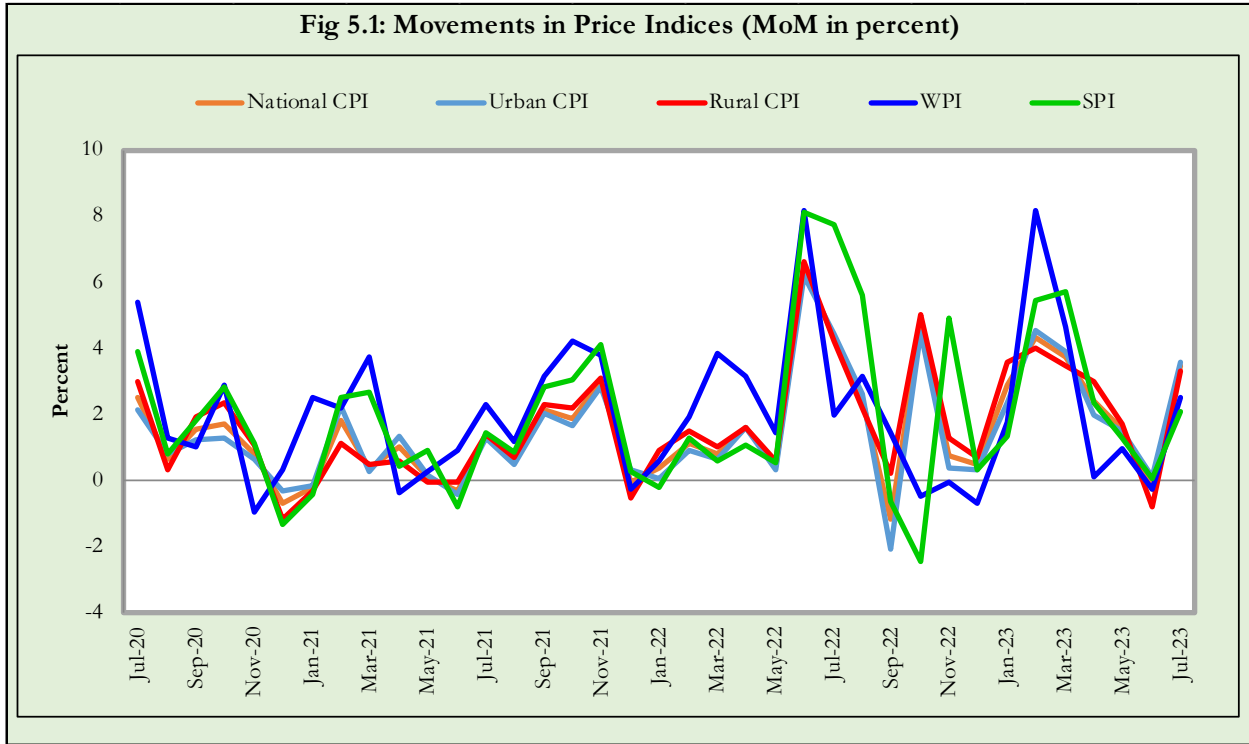
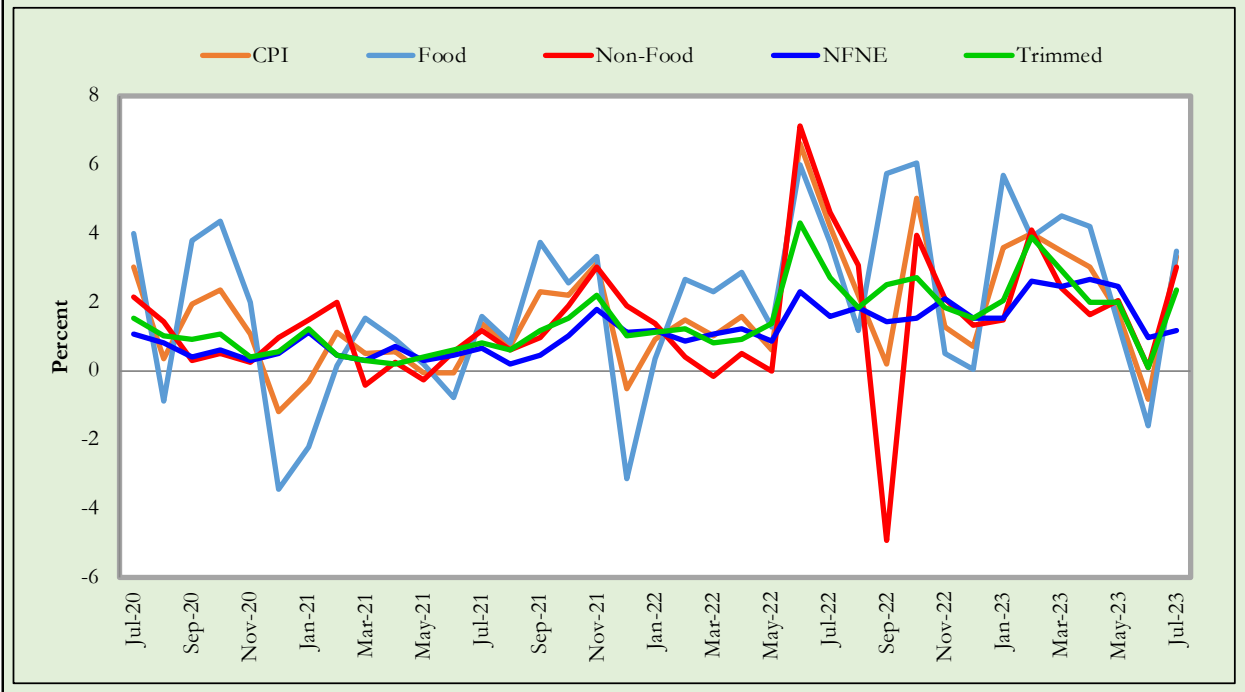
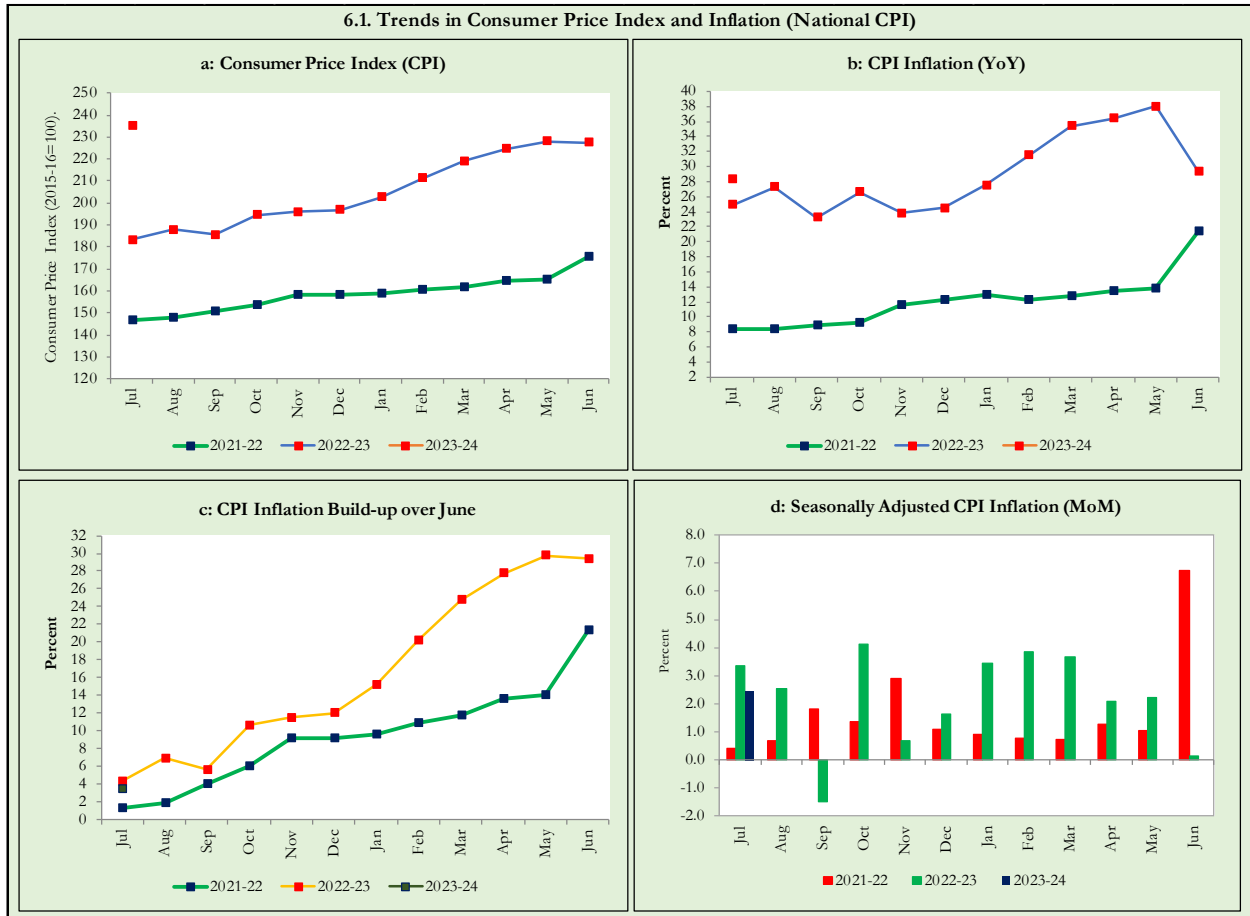


Fig 5.3: Movements in Price Indices (MoM in percent) - Rural CPI Basket

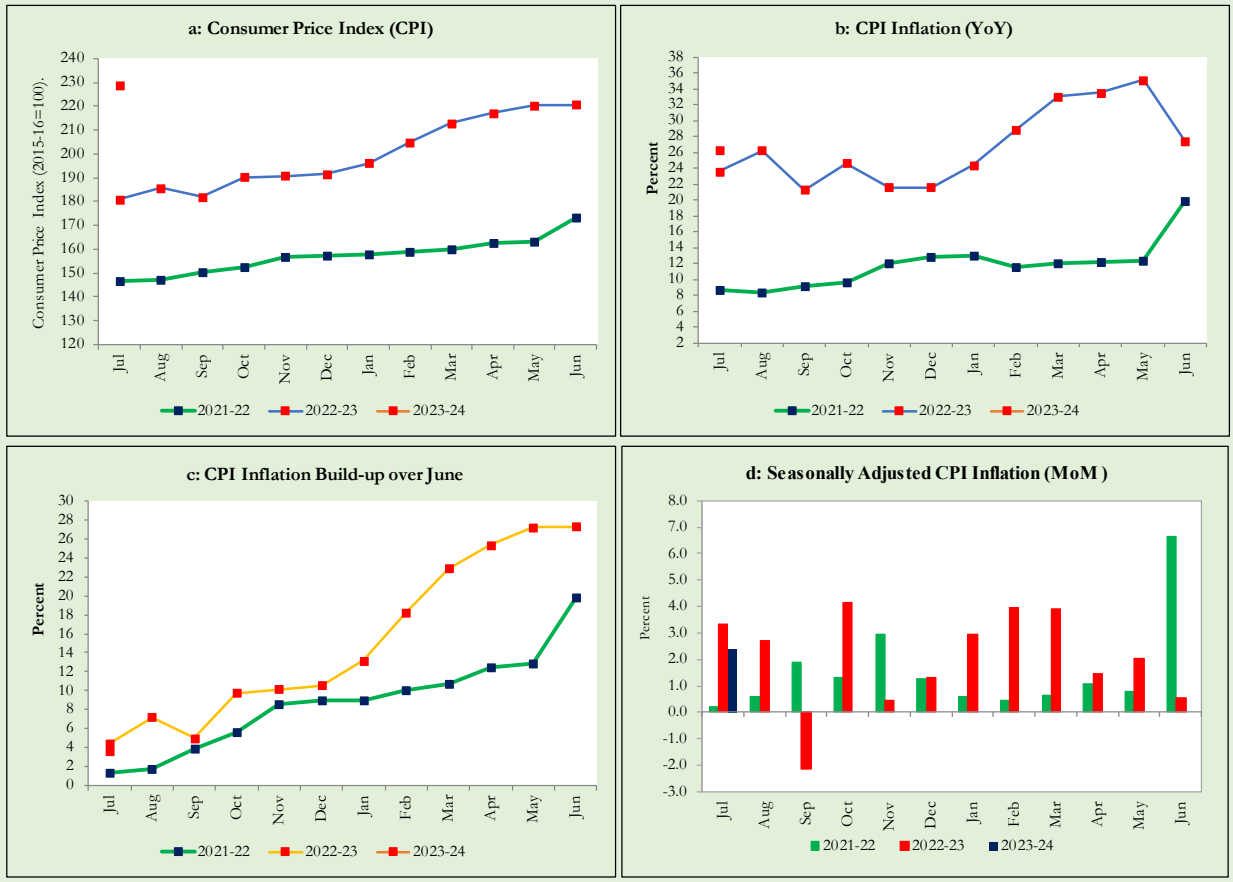


6. Consumer Price Indices and Inflation

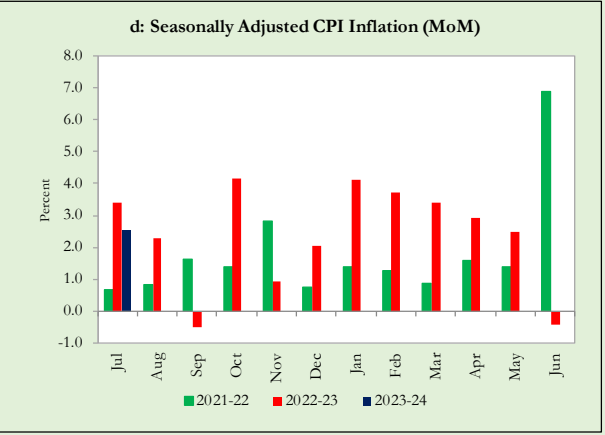
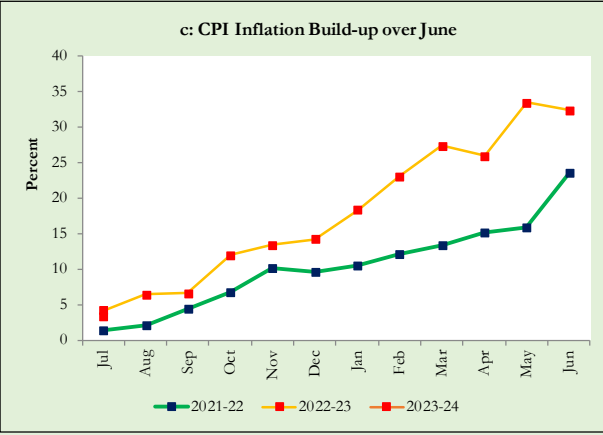
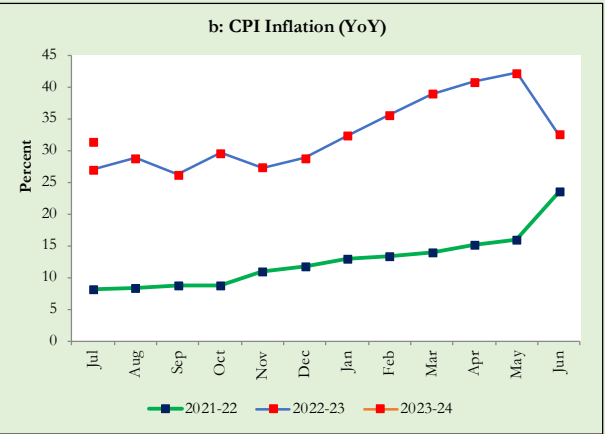
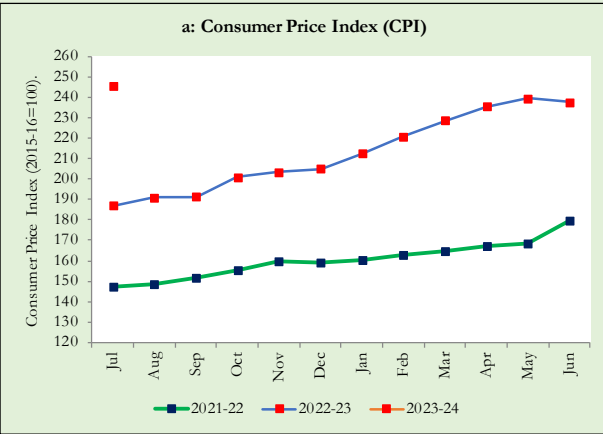
Monthly CPI, Inflation (YoY) and seasonally adjusted CPI (MoM) are summarized in the following graphs (Figure 6.1 to 6.3).



6.2. Trends in Consumer Price Index and Inflation (Urban CPI Basket)



6.3. Trends in Consumer Price Index and Inflation (Rural CPI Basket)



7. Weighted Contribution

The weighted contribution in the overall Urban CPI Inflation of

- Food group increased to 59.7 percent during July 2023 from 58.5 percent in previous month. It was 43.9 percent during the corresponding month of last year.
- Non-food group decreased to 40.3 percent in July 2023 from 41.5 percent in previous month. It was 56.1 percent during the corresponding month of last year (**Table 7.1**).

Period	Overall CPI	Food Group			Non-Food Group				
		Food	Perishable food	Non-Perishable food	Non-food	Energy	Core Inflation (NFNE)	NFNE excl HRI	HRI
		a=(b+e)	b=(c+d)	c	d	e=(f+g)	f	g=(h+i)	h
Jul-22	100.0	43.9	6.0	38.0	56.1	29.5	26.5	22.2	4.4
Aug-22	100.0	41.6	5.6	36.0	58.4	31.0	27.3	23.4	3.9
Sep-22	100.0	56.0	10.1	45.8	44.0	9.2	34.8	30.0	4.8
Oct-22	100.0	54.3	12.6	41.7	45.7	15.0	30.7	26.9	3.8
Nov-22	100.0	53.5	9.2	44.2	46.6	12.8	33.8	29.5	4.3
Dec-22	100.0	57.3	10.0	47.3	42.7	8.5	34.2	30.0	4.2
Jan-23	100.0	60.0	9.4	50.6	40.0	7.9	32.1	28.1	3.9
Feb-23	100.0	55.2	6.6	48.6	44.8	14.8	30.0	26.7	3.3
Mar-23	100.0	54.9	6.5	48.4	45.0	16.3	28.7	25.9	2.9
Apr-23	100.0	54.7	4.1	50.6	45.3	15.8	29.4	26.7	2.8
May-23	100.0	54.2	4.2	50.0	45.8	16.9	28.9	26.3	2.6
Jun-23	100.0	58.5	4.3	54.2	41.5	8.5	33.0	29.8	3.2
Jul-23	100.0	59.7	4.4	55.3	40.3	7.1	33.1	30.0	3.1

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

The weighted contribution in the overall Rural CPI Inflation of

- Food group increased to 63.7 percent during July 2023 from 62.2 percent in previous month. It was 52.1 percent during the corresponding month of last year.
- Non-food group decreased to 36.3 percent in July 2023 from 37.9 percent in previous month. It was 47.9 percent during corresponding month of last year (**Table 7.2**).

Table 7.2 Weighted Contribution (percent) in Rural CPI Inflation (YoY)									
Period	Overall CPI	Food Group			Non-Food Group				
		Food	Perishable food	Non-Perishable food	Non-food	Energy	Core Inflation (NFNE)	NFNE excl HRI	HRI
		a=(b+e)	b=(c+d)	c	d	e=(f+g)	f	g=(h+i)	h
Jul-22	100.0	52.1	6.9	45.2	47.9	25.4	22.6	20.8	1.8
Aug-22	100.0	49.6	6.8	42.9	50.4	26.7	23.7	22.0	1.7
Sep-22	100.0	60.1	11.6	48.5	39.9	12.6	27.3	25.5	1.8
Oct-22	100.0	60.7	15.2	45.5	39.3	14.6	24.7	23.1	1.6
Nov-22	100.0	59.4	10.8	48.6	40.6	13.7	26.9	25.3	1.6
Dec-22	100.0	61.9	10.9	50.9	38.1	11.6	26.5	25.0	1.6
Jan-23	100.0	65.5	9.9	55.6	34.5	10.3	24.2	22.6	1.7
Feb-23	100.0	62.5	8.3	54.3	37.5	13.3	24.2	22.7	1.5
Mar-23	100.0	61.8	7.7	54.1	38.2	14.3	23.9	22.5	1.3
Apr-23	100.0	62.1	5.1	57.0	37.8	13.4	24.4	23.1	1.3
May-23	100.0	60.6	4.8	55.7	39.4	13.9	25.5	24.3	1.3
Jun-23	100.0	62.2	4.2	57.9	37.9	8.0	29.9	28.3	1.5
Jul-23	100.0	63.7	4.1	59.6	36.3	6.8	29.5	27.9	1.6

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

8. Inflation Diffusion Index

Inflation Diffusion Index (IDI) is the difference (MoM change) 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 basket for which prices have reported. IDI for urban and rural baskets is presented in **Table 8.1** for the last thirteen months.

Table 8.1(a) Inflation Diffusion Index for Urban CPI Basket based on MoM change													
Groups	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23
General	71.1	70.8	62.4	66.3	54.5	56.7	68.8	78.9	73.6	64.9	65.2	55.9	64.0
Food & Non-Alcoholic Beverages	66.7	54.4	56.7	43.3	18.9	26.7	55.6	68.9	66.7	50.0	44.4	24.4	55.6
Alcoholic Beverages & Tobacco	100.0	100.0	100.0	100.0	100.0	100.0	33.3	100.0	100.0	100.0	100.0	33.3	66.7
Clothing & Footwear	62.5	70.0	62.5	72.5	75.0	77.5	77.5	67.5	72.5	70.0	70.0	72.5	72.5
Housing, Water, Elec, Gas & other Fuels	75.9	58.6	3.4	51.7	24.1	10.3	58.6	75.9	48.3	10.3	44.8	51.7	65.5
Furnishing & Household Equip. Maintenance etc.	97.6	95.2	97.6	100.0	100.0	95.2	100.0	100.0	100.0	100.0	100.0	95.2	100.0
Health	61.3	77.4	87.1	80.6	83.9	71.0	80.6	87.1	77.4	67.7	74.2	67.7	74.2
Transport	81.3	50.0	37.5	46.9	34.4	25.0	34.4	90.6	81.3	59.4	37.5	46.9	43.8
Communication	40.0	20.0	40.0	40.0	20.0	40.0	20.0	40.0	40.0	20.0	40.0	40.0	40.0
Recreation & Culture	52.0	80.0	72.0	80.0	24.0	72.0	84.0	80.0	56.0	72.0	64.0	32.0	32.0
Education	31.3	75.0	12.5	37.5	50.0	56.3	31.3	31.3	62.5	56.3	62.5	56.3	12.5
Restaurant & Hotels	85.7	100.0	92.9	100.0	100.0	100.0	85.7	92.9	92.9	92.9	100.0	92.9	85.7
Miscellaneous	86.2	96.6	93.1	89.7	100.0	96.6	100.0	100.0	86.2	100.0	100.0	82.8	86.2
NFNE	71.5	77.4	67.2	76.6	71.5	72.3	76.6	82.6	77.0	75.7	74.5	68.9	67.2

Groups	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23
General	76.6	72.5	67.2	68.0	54.5	48.8	67.6	77.9	72.5	63.1	63.1	54.1	62.3
Food & Non-Alcoholic Beverages	64.6	53.2	62.0	55.7	13.9	12.7	57.0	62.0	53.2	39.2	43.0	19.0	43.0
Alcoholic Beverages & Tobacco	100.0	100.0	100.0	60.0	100.0	80.0	80.0	100.0	100.0	100.0	40.0	40.0	60.0
Clothing & Footwear	81.5	88.9	66.7	81.5	96.3	85.2	81.5	96.3	92.6	92.6	92.6	92.6	85.2
Housing, Water, Elec, Gas & other Fuels	95.7	78.3	30.4	56.5	34.8	0.0	82.6	56.5	69.6	21.7	47.8	65.2	73.9
Furnishing & Household Equip. Maintenance etc.	92.3	100.0	88.5	100.0	100.0	96.2	96.2	100.0	100.0	88.5	92.3	92.3	96.2
Health	64.3	71.4	92.9	64.3	100.0	78.6	35.7	85.7	64.3	71.4	64.3	64.3	57.1
Transport	75.0	43.8	68.8	31.3	18.8	25.0	12.5	81.3	81.3	62.5	37.5	37.5	62.5
Communication	40.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Recreation & Culture	53.8	84.6	69.2	84.6	46.2	84.6	76.9	92.3	69.2	84.6	84.6	38.5	38.5
Education	100.0	80.0	0.0	100.0	80.0	80.0	80.0	80.0	80.0	100.0	80.0	60.0	0.0
Restaurant & Hotels	85.7	92.9	85.7	85.7	85.7	71.4	85.7	85.7	85.7	78.6	71.4	85.7	85.7
Miscellaneous	94.1	94.1	94.1	88.2	100.0	94.1	94.1	100.0	88.2	100.0	100.0	88.2	82.4
NFNE	78.7	80.9	72.1	76.5	80.9	74.3	72.8	86.8	80.9	81.6	77.2	74.3	69.9

9. Domestic Food Commodity Prices (Growth)

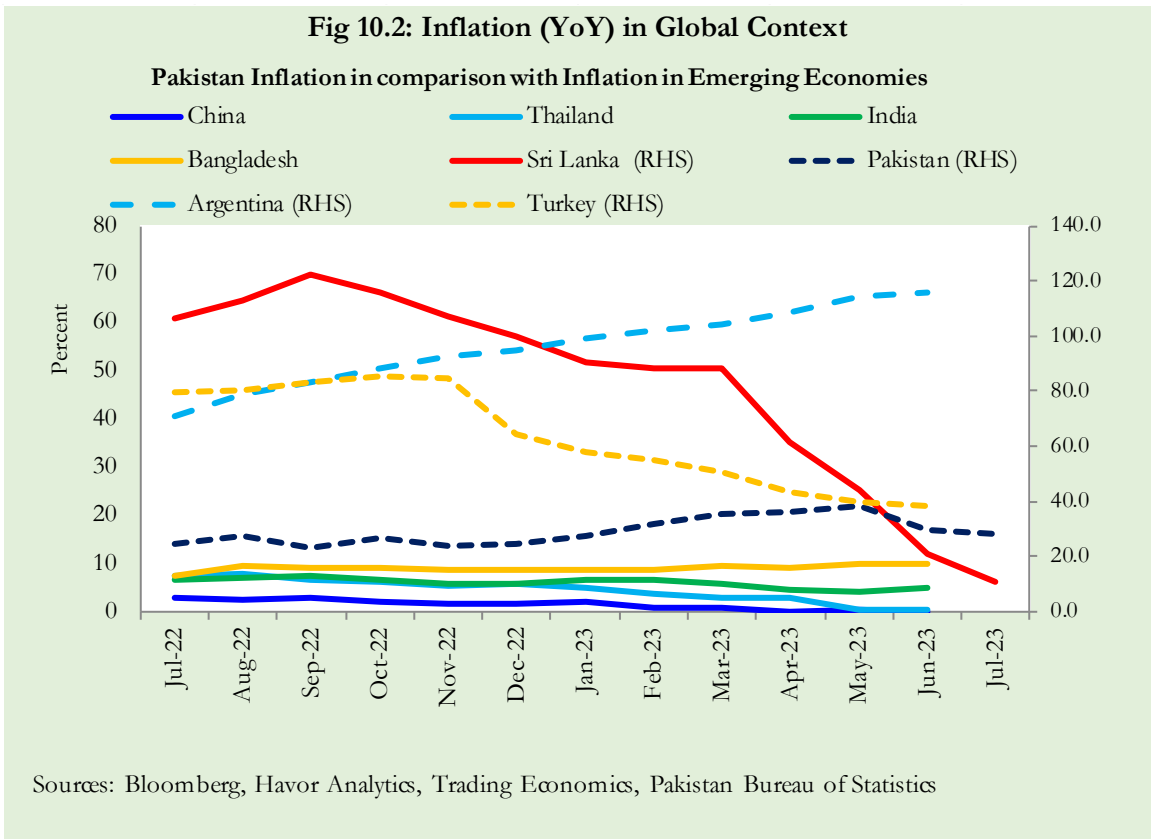
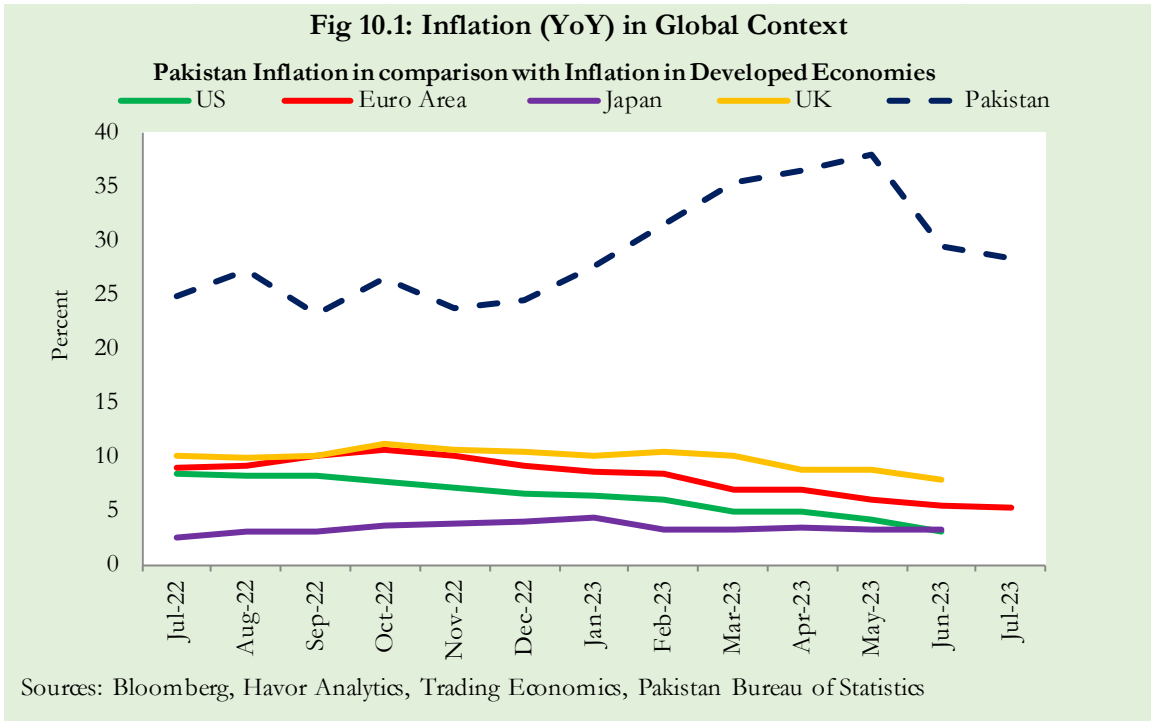
Growth of domestic food commodities for selected essential food items covering both urban and rural CPI baskets is given in **Table 9.1**.

S. No	Item	Unit	Urban CPI		Rural CPI	
			YoY	MoM	YoY	MoM
1	Wheat	10 Kg	64.3	11.1	68.8	10.8
2	Wheat Flour Bag	20 Kg	127.8	14.8	104.4	14.2
3	Rice Basmati Broken (Superior/Average Quality)*	1 Kg	47.3	0.9	78.8	1.6
4	Beef With Bone (Average Quality)	1 Kg	17.9	1.0	19.5	1.2
5	Mutton (Average Quality)	1 Kg	18.7	0.2	20.8	0.1
6	Chicken Farm Broiler (Live)	1 Kg	58.1	-2.8	52.1	-2.5
7	Milk Fresh (Un-Boiled)	1 Liter	28.5	2.6	34.6	2.2
8	Eggs Farm	Dozen	27.5	0.6	25.5	-2.5
9	Vegetable Ghee Dalda/Habib Or Other Superior Quality 1 Kg Pouch	Each	-1.7	-2.9	-3.8	-2.0
10	Pulse Masoor (Washed)	1 Kg	-7.7	-0.9	-6.3	-1.1
11	Pulse Moong (Washed)	1 Kg	43.8	-1.9	38.8	-3.3
12	Pulse Mash (Washed)	1 Kg	41.1	3.2	47.9	1.3
13	Pulse Gram	1 Kg	6.2	-2.6	11.7	-1.3
14	Potatoes	1 Kg	61.8	8.4	58.3	7.8
15	Onions	1 Kg	-28.2	-2.2	-34.7	-9.5
16	Tomatoes	1 Kg	7.4	33.4	-0.6	32.6
17	Sugar Refined	1 Kg	56.4	11.8	56.5	12.4
18	Garlic (Lehsun)	1 Kg	11.7	6.8	8.9	4.0
19	Ginger (Adrak)	500 Gm	197.6	20.1	186.7	19.2
20	Tea Lipton Yellow Label 190 Gm Packet	Each	97.3	0.9	101.8	1.9

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

10. Inflation in Global Context

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

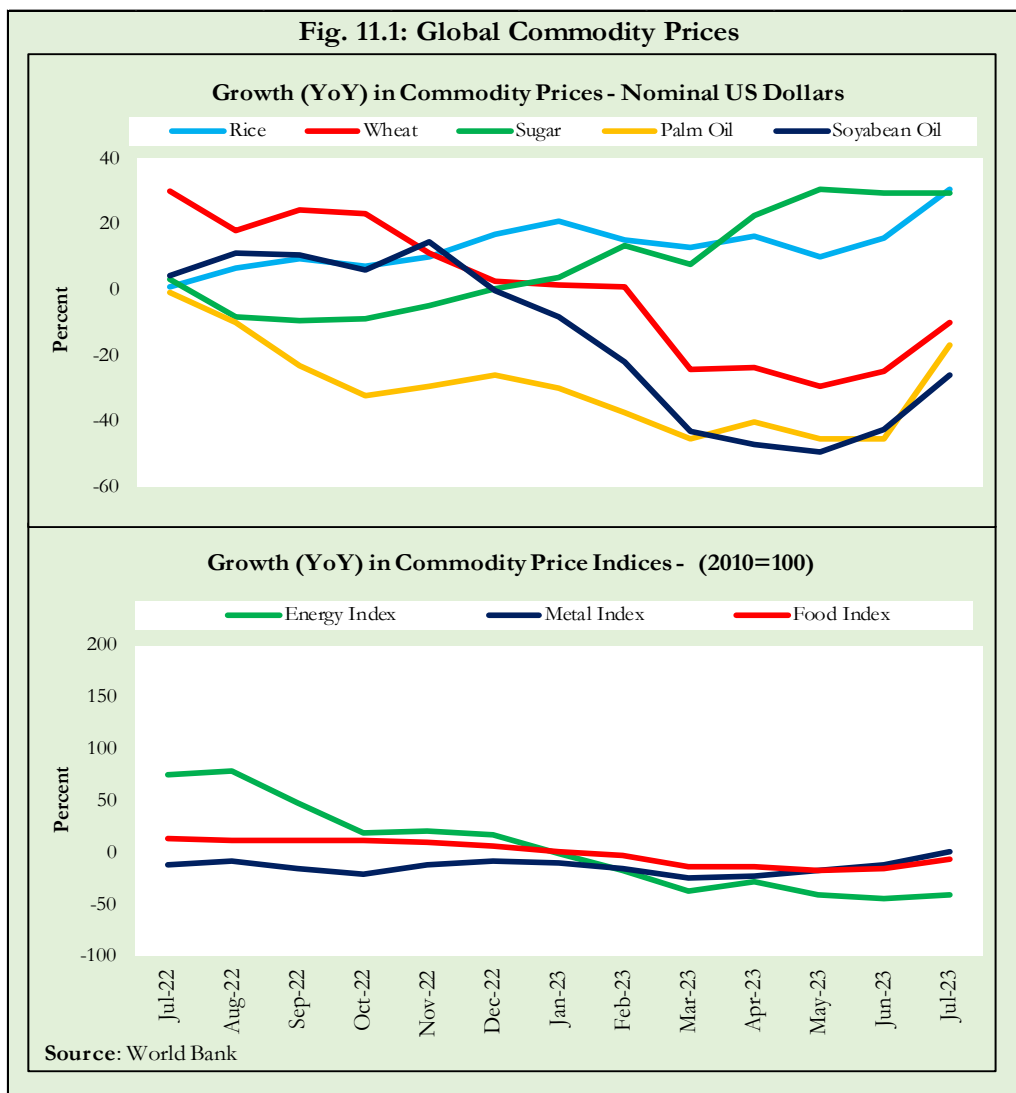


11. Global Commodity Prices and Indices (Growth)

Global commodity prices 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	Jul-22		Jun-23		Jul-23	
	YoY	MoM	YoY	MoM	YoY	MoM
Food	13.4	-8.5	-15.2	-3.5	-6.5	0.9
Metals	-11.1	-12.8	-12.4	-0.4	0.8	0.3
Energy	74.7	-1.0	-45.1	-1.8	-41.3	5.9
Agricultural	10.2	-7.2	-12.8	-2.8	-5.5	0.5
Cotton	34.1	-15.0	-40.0	-1.7	-28.9	0.8

Source: World Bank



12. Seasonal Adjustment in CPI

Seasonal adjustment is the process of estimating and removing seasonal effects from a time series after decomposing it into seasonal, trend, cycle and irregular components. The purpose is to identify the different components of the time series and thus provide a better understanding of its underlying behavior. Various statistical methods can be used 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 July 2023 has been used for seasonal adjustment analysis.

Figure 12.1 reveals that 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 the months from July to December while downward seasonality is seen in the remaining months of the year.

Fig. 12.1 (a): Seasonal Factor of National CPI

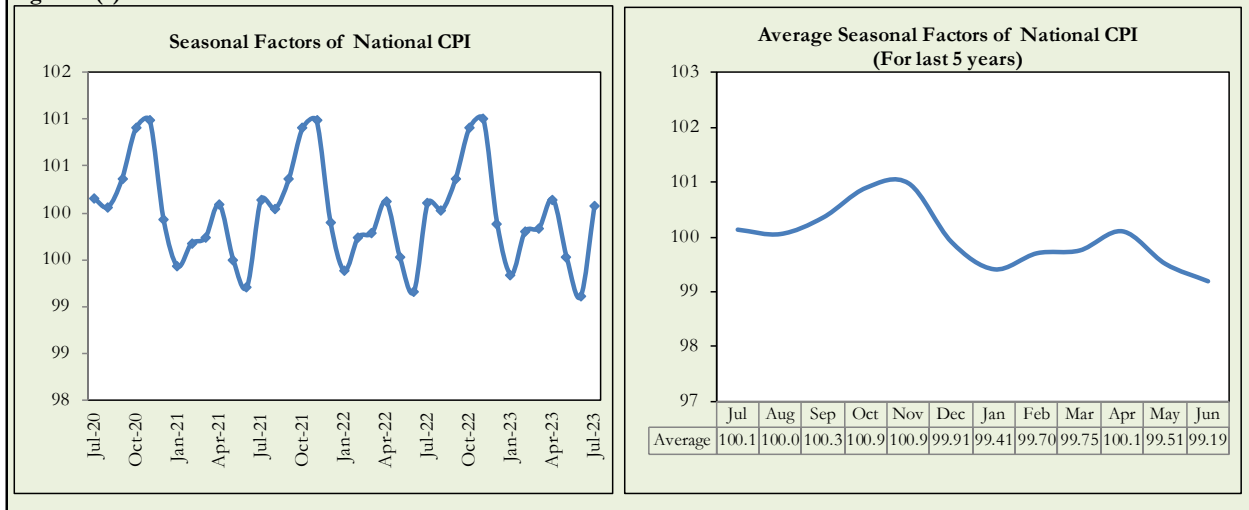


Fig. 12.1 (b): Seasonal Factor of Urban CPI

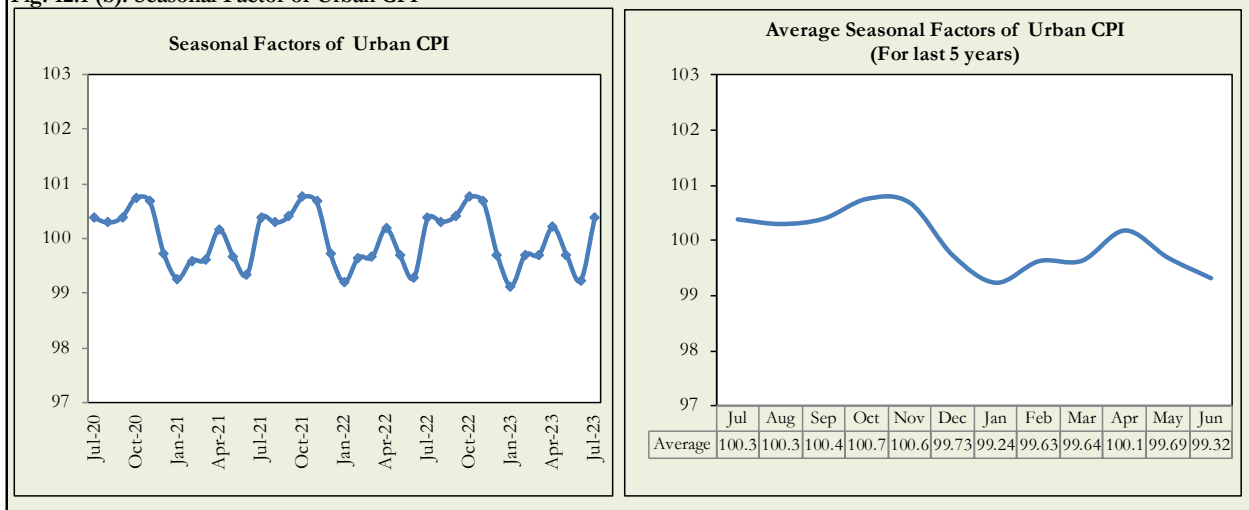
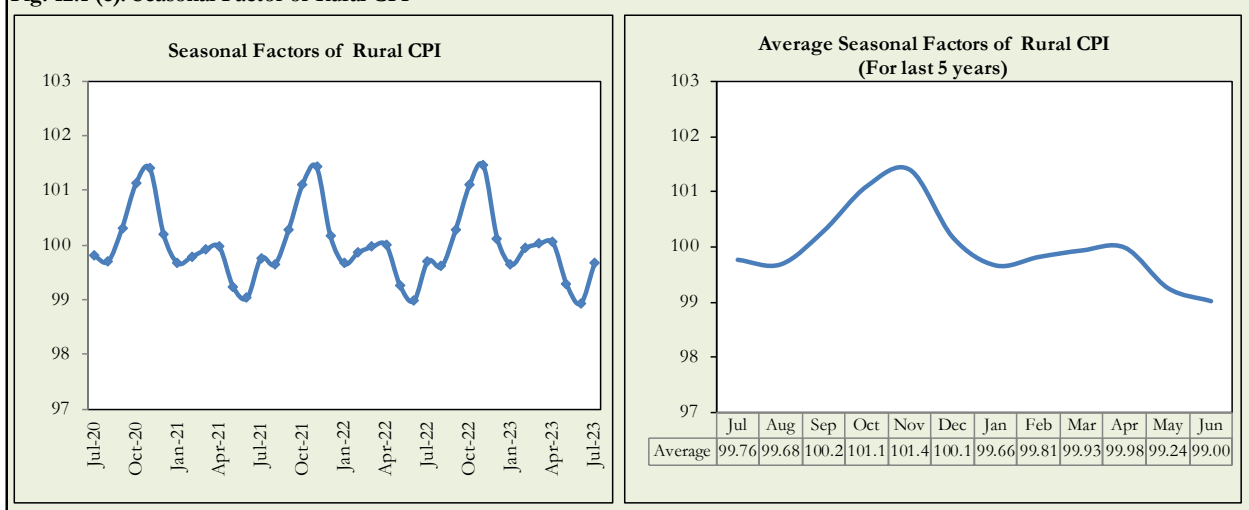


Fig. 12.1 (c): Seasonal Factor of Rural CPI



Figures 12.2 shows that seasonally adjusted series are relatively smoother than the original series. The trend follows the long-term movement in original series and is smoother than the original series.

Fig. 12.2 (a): Seasonal Plot of National CPI

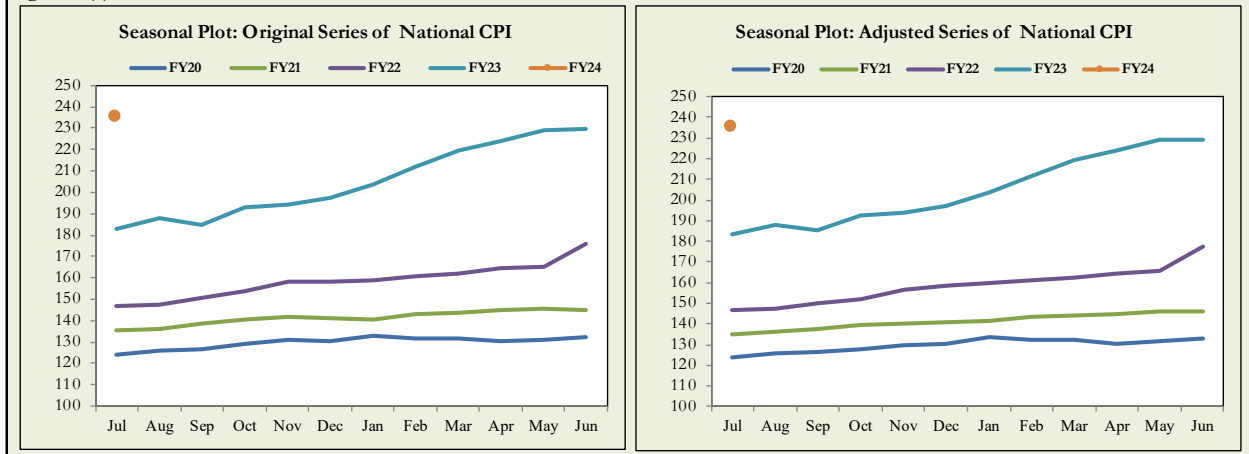


Fig. 12.2 (b): Seasonal Plot of Urban CPI

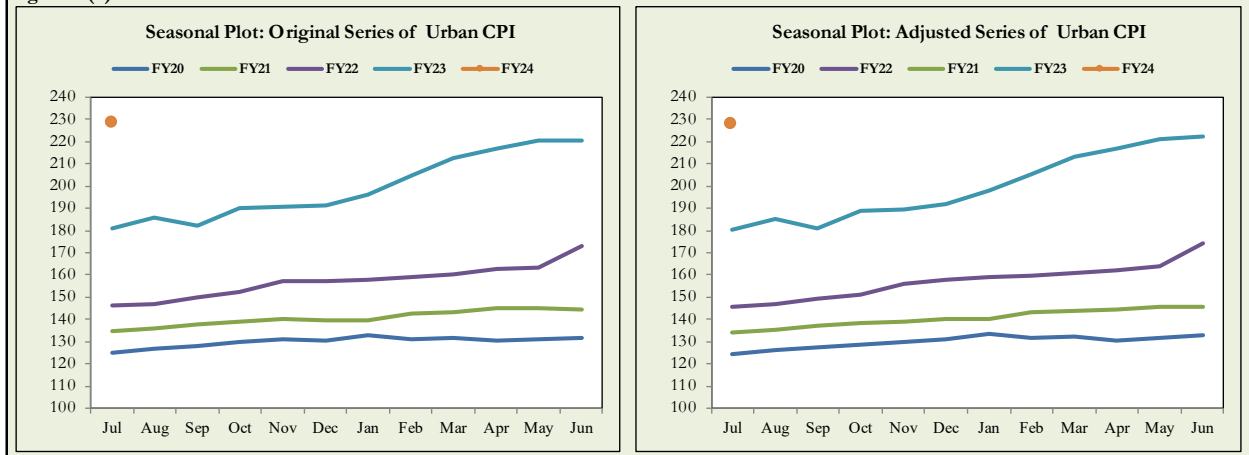
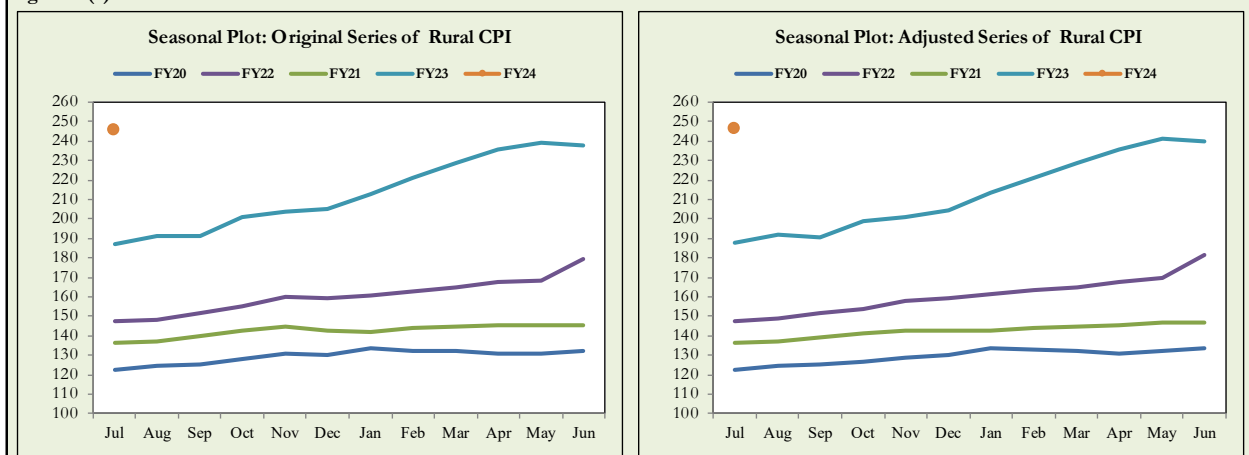
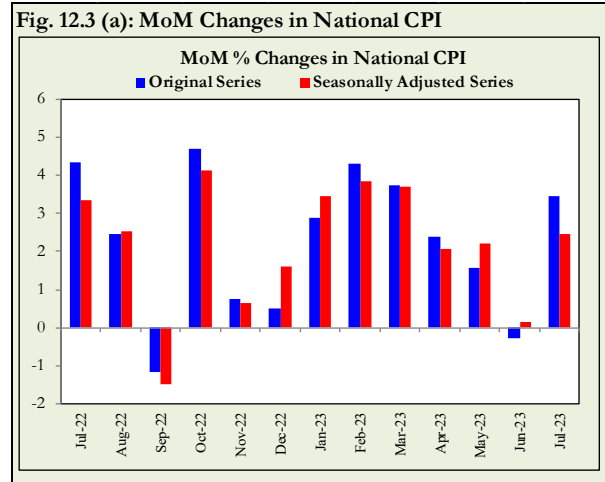


Fig. 12.2 (c): Seasonal Plot of Rural CPI



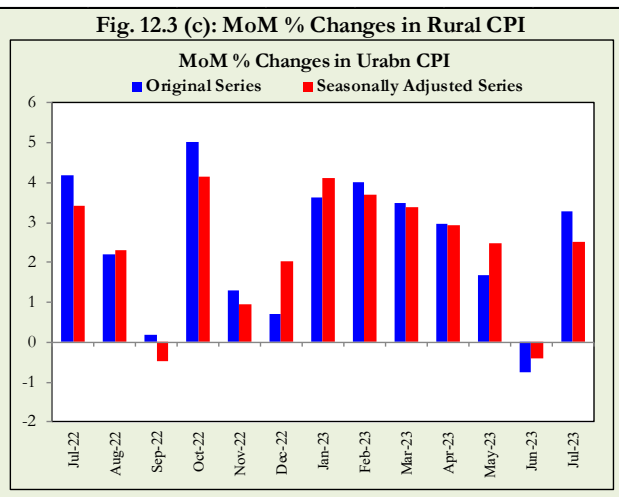
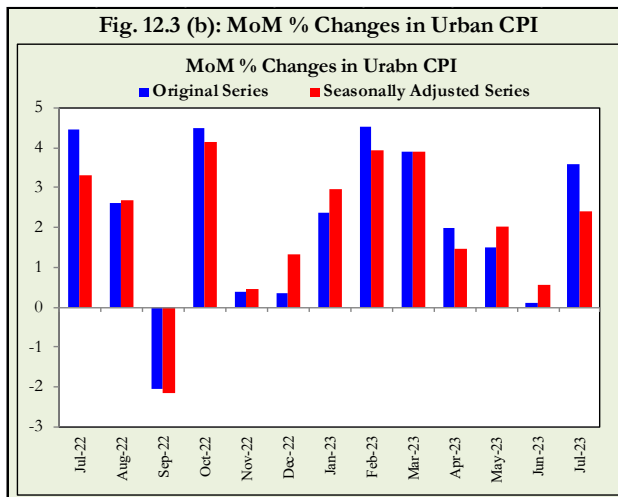
Seasonally adjusted Index of

- National CPI for July 2023 stood at 235.04 against 235.23 in original series showing a decrease of 0.19.
- Urban CPI for July 2023 stood at 227.60 against 228.47 in original series showing a decrease of 0.87.
- Rural CPI for July 2023 stood at 246.26 against 245.44 in original series showing an increase of 0.82.



Month-on-month change of seasonally adjusted

- National CPI series showed an inflation of 2.45% during July 2023 over the previous month against an inflation of 3.46% in original series.
- Urban CPI series showed an inflation of 2.39% during July 2023 over the previous month against an inflation of 3.57% in original series.
- Rural CPI series showed an inflation of 2.53% during July 2023 over the previous month against an inflation of 3.30% in original series.



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
Annual Average															
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
Year-on-Year															
Jul-22	24.9	23.6	26.9	27.4	29.6	21.3	24.5	38.5	24.2	46.7	34.3	12.0	14.6	19.1	21.7
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
12-Month Moving Average															
Jul-22	13.6	13.1	14.2	15.0	14.9	11.9	13.6	26.7	14.2	34.2	18.8	8.6	9.7	11.4	12.5
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
Period Average (Since July)															
Jul-22	24.9	23.6	26.9	27.3	29.6	21.3	24.5	38.5	24.2	46.7	34.3	12.0	14.6	19.1	21.7
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
Month-on-Month															
Jul-22	4.3	4.5	4.2	4.2	3.7	4.6	4.6	2.0	1.7	2.1	7.7	1.2	1.6	2.7	2.7
Aug-22	2.5	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

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

Source: Pakistan Bureau of Statistics

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

Groups	Weights	MoM change			YoY change		
		Jul-22	Jun-23	Jul-23	Jul-22	Jun-23	Jul-23
Food and Non-Alcoholic	34.6	4.0	-1.0	4.1	28.7	39.5	39.5
Alcoholic Beverages, Tobacco	1.0	4.1	0.1	0.4	22.5	109.5	102.1
Clothing and Footwear	8.6	1.1	1.1	0.6	14.6	21.0	20.4
Housing, Water, Elec., Gas and Other Fuels	23.6	8.8	-0.2	8.0	21.8	11.6	10.8
Furnishing and Household Equip. Maintenance	4.1	1.7	1.6	1.7	19.7	41.6	41.7
Health	2.8	0.2	1.1	2.2	11.2	19.1	21.5
Transport	5.9	5.7	-2.1	-0.2	64.7	20.3	13.6
Communication	2.2	0.4	0.1	0.4	1.2	6.8	6.8
Recreation and Culture	1.6	1.6	0.7	0.3	15.4	68.0	65.9
Education	3.8	0.5	0.4	0.0	9.8	8.6	8.0
Restaurants and Hotels	6.9	2.9	1.4	1.7	25.0	36.4	34.7
Miscellaneous	4.9	1.6	1.0	1.0	17.2	40.1	39.3
Overall National CPI	100.0	4.3	-0.3	3.5	24.9	29.4	28.3

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

Groups	Weights	MoM change			YoY change		
		Jul-22	Jun-23	Jul-23	Jul-22	Jun-23	Jul-23
I. Food Group	36.8	4.3	0.1	3.7	27.4	40.8	40.2
Food and Non-Alcoholic Beverages	30.4	4.3	-0.2	4.3	27.8	38.6	38.7
Alcoholic Beverages, Tobacco	0.9	2.9	0.0	0.4	21.7	107.6	102.6
Restaurants and Hotels (Food Component)	5.5	4.3	1.5	1.2	26.0	43.0	38.8
II. Non-Food Group	63.2	4.6	0.1	3.5	21.3	18.7	17.3
Clothing and Footwear	8.0	1.0	1.1	0.6	15.0	19.1	18.6
Housing, Water, Elec., Gas and Other Fuels	27.0	8.6	-0.1	8.0	19.2	10.2	9.6
Furnishing and Household Equip. Maintenance	4.1	1.5	1.6	1.8	18.2	40.6	41.1
Health	2.3	0.1	0.7	2.9	10.8	18.5	21.9
Transport	6.1	5.6	-2.2	0.0	63.8	20.0	13.6
Communication	2.4	0.4	0.1	0.6	1.1	8.8	9.0
Recreation and Culture	1.7	1.2	0.5	0.4	13.9	67.3	65.8
Education	4.9	0.3	0.2	0.0	10.5	5.9	5.6
Restaurants and Hotels (Non- Food Component)	1.9	0.1	0.7	0.6	20.9	25.4	26.0
Miscellaneous	4.8	1.4	1.2	1.1	16.8	39.5	39.1
Overall Urban CPI	100.0	4.5	0.1	3.6	23.6	27.3	26.3

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

Groups	Weights	MoM Change			YoY Change		
		Jul-22	Jun-23	Jul-23	Jul-22	Jun-23	Jul-23
I. Food Group	45.9	3.7	-1.6	3.5	29.6	41.5	41.3
Food and Non-Alcoholic Beverages	40.9	3.8	-1.9	3.8	29.9	40.4	40.5
Alcoholic Beverages, Tobacco	1.3	5.5	0.2	0.4	23.4	111.8	101.5
Restaurants and Hotels (Food Component)	3.8	2.6	1.8	1.9	29.3	33.8	33.0
II. Non-Food Group	54.1	4.6	0.1	3.0	24.5	23.8	22.0
Clothing and Footwear	9.5	1.2	1.1	0.6	14.0	23.3	22.5
Housing, Water, Elec., Gas and Other Fuels	18.5	9.4	-0.6	8.1	27.6	14.8	13.5
Furnishing and Household Equip. Maintenance	4.1	2.0	1.6	1.6	22.0	43.1	42.6
Health	3.5	0.3	1.5	1.5	11.7	19.7	21.2
Transport	5.6	5.7	-2.1	-0.6	66.3	20.9	13.6
Communication	2.0	0.4	0.0	0.1	1.2	3.0	2.8
Recreation and Culture	1.4	2.2	1.0	0.2	18.2	69.2	65.9
Education	2.1	1.4	0.8	0.0	7.2	18.8	17.1
Restaurants and Hotels (Non-Food Component)	2.4	1.4	0.6	4.9	17.8	28.6	33.0
Miscellaneous	5.0	2.0	0.8	0.9	17.7	40.9	39.5
Overall Rural CPI	100.0	4.2	-0.8	3.3	26.9	32.4	31.3

Table A5: National CPI Inflation by Groups

Period	General	Food and Non-Alcoholic Beverages	Non-Perishable Food Items	Perishable Food Items	Alcoholic Beverages, Tobacco	Clothing and Footwear	Housing, Water, Elec., Gas and Other Fuels	Furnishing and Household Equipment	Health	Transport	Communication	Recreation and Culture	Education	Restaurants and Hotels	Misc. Goods and Services
Year-on-Year															
Jul-22	24.9	28.7	28.1	32.9	22.5	14.6	21.8	19.7	11.2	64.7	1.2	15.4	9.8	25.0	17.2
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
12-Month Moving Average															
Jul-22	13.6	15.2	15.7	11.7	6.0	10.9	11.8	13.4	9.6	28.7	2.3	9.5	5.4	14.0	11.3
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
Period Average (Since July)															
Jul-22	24.9	28.7	28.1	32.9	22.5	14.6	21.8	19.7	11.2	64.7	1.2	15.4	9.8	25.0	17.2
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
Month-on-Month															
Jul-22	4.3	4.0	3.6	6.7	4.1	1.1	8.8	1.7	0.2	5.7	0.4	1.6	0.5	2.9	1.6
Aug-22	2.5	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
3-Year Average (in current month during FY22-FY24)															
YoY	20.5	25.5	27.3	15.8	42.6	14.8	13.9	23.7	13.8	29.6	3.6	29.1	6.6	22.7	21.9
MoM	3.0	3.3	2.7	7.3	1.5	0.6	6.1	1.4	0.9	3.2	0.7	0.8	0.3	1.6	1.1

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	Housing, Water, Elec., Gas and Other Fuels	Furnishing and Household Equipment	Health	Transport	Communication	Recreation and Culture	Education	Restaurants and Hotels	Misc. Goods and Services
Year-on-Year															
Jul-22	23.6	27.8	27.0	32.4	21.7	15.0	19.2	18.2	10.8	63.8	1.1	13.9	10.5	24.7	16.8
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
12-Month Moving Average															
Jul-22	13.1	15.2	16.0	11.0	6.0	11.2	10.5	12.6	9.9	29.0	3.0	9.0	5.6	14.0	11.0
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
Period Average (Since July)															
Jul-22	23.6	27.8	27.0	32.4	21.7	15.0	19.2	18.2	10.8	63.8	1.1	13.9	10.5	24.7	16.8
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
Month-on-Month															
Jul-22	4.5	4.3	3.8	7.3	2.9	1.0	8.6	1.5	0.1	5.6	0.4	1.2	0.3	3.3	1.4
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
3-Year Average (in current month during FY22-FY24)															
YoY	19.5	25.2	26.9	16.1	42.7	14.7	12.4	22.9	14.0	29.6	4.6	28.4	5.9	23.3	21.7
MoM	3.1	3.4	2.9	7.0	1.1	0.6	6.0	1.4	1.1	3.2	0.9	0.8	0.2	1.6	0.8

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	Alcoholic Beverages, Tobacco	Clothing and Footwear	Housing, Water, Elec., Gas and Other Fuels	Furnishing and Household Equipment	Health	Transport	Communication	Recreation and Culture	Education	Restaurants and Hotels	Misc. Goods and Services
Year-on-Year															
Jul-22	26.9	29.9	29.3	33.5	23.4	14.0	27.6	22.0	11.7	66.3	1.2	18.2	7.2	25.4	17.7
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
12-Month Moving Average															
Jul-22	14.2	15.1	15.5	12.7	6.0	10.4	14.9	14.7	9.4	28.3	1.0	10.3	4.7	13.9	11.6
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
Period Average (Since July)															
Jul-22	26.9	29.9	29.3	33.5	23.4	14.0	27.6	22.0	11.7	66.3	1.2	18.2	7.2	25.4	17.7
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
Month-on-Month															
Jul-22	4.2	3.8	3.5	6.0	5.5	1.2	9.4	2.0	0.3	5.7	0.4	2.2	1.4	2.2	2.0
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
3-Year Average (in current month during FY22-FY24)															
YoY	22.1	25.8	27.6	15.3	42.5	15.0	17.2	25.0	13.5	29.7	1.7	30.3	9.5	21.7	22.2
MoM	3.0	3.1	2.5	7.5	1.9	0.7	6.3	1.4	0.7	3.0	0.2	1.0	0.7	1.8	1.4

Source: Pakistan Bureau of Statistics

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

Items/Contributors	Weights	YoY Change		Weighted Contribution (%)	
		Jul-22	Jul-23		
<u>A. Ranked by Weighted Contribution</u>					
1	Wheat Flour	3.01	23.76	102.43	11.83
2	Readymade Food	5.52	25.95	38.75	8.27
3	Milk Fresh	7.11	24.75	30.00	7.98
4	Appliances/Articles/Products For Personal	2.98	15.79	41.46	4.34
5	Washing Soap/Detergents/Match Box	1.41	24.72	62.91	3.40
6	Rice	1.18	31.22	68.87	3.29
7	Chicken	1.36	59.09	58.13	3.27
8	Cigarettes	0.72	21.51	123.46	3.19
9	House Rent	19.26	5.62	5.25	3.14
10	Gas Charges	1.08	0.00	62.82	3.10
Total		43.63			51.81
<u>B. Ranked by Percentage Change</u>					
1	Cigarettes	0.72	21.51	123.46	3.19
2	Text Books	0.67	8.74	112.47	2.19
3	Wheat Flour	3.01	23.76	102.43	11.83
4	Tea	0.84	23.12	97.26	2.99
5	Rice	1.18	31.22	68.87	3.29
6	Dessert Preparation	0.04	17.27	68.17	0.09
7	Wheat	0.61	43.04	66.58	1.89
8	Stationery	0.35	34.81	63.56	0.84
9	Washing Soap/Detergents/Match Box	1.41	24.72	62.91	3.40
10	Gas Charges	1.08	0.00	62.82	3.10
Total		9.91			32.81
<u>C. Ranked by Weights</u>					
1	House Rent	19.26	5.62	5.25	3.14
2	Milk Fresh	7.11	24.75	30.00	7.98
3	Readymade Food	5.52	25.95	38.75	8.27
4	Education	4.88	10.51	5.57	0.93
5	Electricity Charges	4.56	86.72	8.38	1.97
6	Wheat Flour	3.01	23.76	102.43	11.83
7	Appliances/Articles/Products For Personal	2.98	15.79	41.46	4.34
8	Motor Fuel	2.91	94.42	8.85	1.73
9	Cotton Cloth	2.22	18.15	26.23	2.18
10	Meat	2.04	25.97	18.25	1.72
Total		54.49			44.09

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 26.3 percent in July-2023.

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

Items/Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Jun-23	Jul-23		
A. Ranked by Weighted Contribution					
1	Electricity Charges	4.56	2.90	39.88	43.87
2	Wheat Flour	3.01	-8.17	13.36	16.62
3	Fresh Vegetables	1.53	-8.38	37.64	12.51
4	Condiments And Spices	1.33	0.38	18.80	7.15
5	House Rent	19.26	0.00	1.37	5.16
6	Milk Fresh	7.11	3.55	2.43	4.94
7	Appliances/Articles/Products For Personal	2.98	2.88	3.99	3.43
8	Sugar	1.11	2.64	11.84	3.33
9	Wheat	0.61	-5.86	11.14	2.86
10	Readymade Food	5.52	1.46	1.20	2.12
Total		47.02			101.99
B. Ranked by Percentage Change					
1	Electricity Charges	4.56	2.90	39.88	43.87
2	Fresh Vegetables	1.53	-8.38	37.64	12.51
3	Tomatoes	0.35	28.32	33.45	1.95
4	Condiments And Spices	1.33	0.38	18.80	7.15
5	Wheat Flour	3.01	-8.17	13.36	16.62
6	Sugar	1.11	2.64	11.84	3.33
7	Wheat	0.61	-5.86	11.14	2.86
8	Potatoes	0.45	6.50	8.16	1.55
9	Gur	0.04	7.21	6.79	0.07
10	Milk Powder	0.31	1.44	5.52	0.48
Total		13.30			90.39
C. Ranked by Weights					
1	House Rent	19.26	0.00	1.37	5.16
2	Milk Fresh	7.11	3.55	2.43	4.94
3	Readymade Food	5.52	1.46	1.20	2.12
4	Education	4.88	0.23	0.01	0.01
5	Electricity Charges	4.56	2.90	39.88	43.87
6	Wheat Flour	3.01	-8.17	13.36	16.62
7	Appliances/Articles/Products For Personal	2.98	2.88	3.99	3.43
8	Motor Fuel	2.91	-4.33	-1.42	-1.85
9	Cotton Cloth	2.22	0.43	0.45	0.28
10	Meat	2.04	2.50	0.68	0.45
Total		54.49			75.03

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 3.6 percent in July-2023.

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

Items/Contributors	Weights	YoY Change		Weighted Contribution (%)	
		Jul-22	Jul-23		
A. Ranked by Weighted Contribution					
1	Wheat Flour	3.01	23.76	102.43	11.83
2	Readymade Food	5.52	25.95	38.75	8.27
3	Milk Fresh	7.11	24.75	30.00	7.98
4	Appliances/Articles/Products For Personal	2.98	15.79	41.46	4.34
5	Washing Soap/Detergents/Match Box	1.41	24.72	62.91	3.40
6	Rice	1.18	31.22	68.87	3.29
7	Chicken	1.36	59.09	58.13	3.27
8	Cigarettes	0.72	21.51	123.46	3.19
9	House Rent	19.26	5.62	5.25	3.14
10	Gas Charges	1.08	0.00	62.82	3.10
11	Tea	0.84	23.12	97.26	2.99
12	Condiments And Spices	1.33	-21.23	52.63	2.58
13	Text Books	0.67	8.74	112.47	2.19
14	Cotton Cloth	2.22	18.15	26.23	2.18
15	Electricity Charges	4.56	86.72	8.38	1.97
Total		53.25			63.72
Bottom 15 Contributors					
1	Onions	0.59	89.48	-28.18	-0.71
2	Pulse Masoor	0.16	92.43	-7.72	-0.05
3	Liquefied Hydrocarbons	0.51	45.62	-1.85	-0.05
4	Vegetable Ghee	1.03	74.08	-0.34	-0.03
5	Communication Services	1.88	0.52	0.00	0.00
6	Mustard Oil	0.01	81.95	1.34	0.00
7	Therapeutic Appliances And Equipment	0.01	5.55	7.86	0.00
8	Postal Services	0.02	12.81	8.90	0.01
9	Dental Services	0.02	7.04	14.85	0.01
10	Major Tools & Equipment's	0.01	22.21	23.60	0.01
11	Carpets	0.03	11.26	15.01	0.01
12	Motor Vehicle Tax	0.05	0.00	8.92	0.01
13	Electrical Appliances For Personal	0.05	16.10	12.36	0.02
14	Garbage Collection	0.11	14.96	4.58	0.02
15	Honey	0.10	18.71	10.54	0.04
Total		4.58			-0.71

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

Items/Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Jun-23	Jul-23		
A. Ranked by Weighted Contribution					
1	Electricity Charges	4.56	2.90	39.88	43.87
2	Wheat Flour	3.01	-8.17	13.36	16.62
3	Fresh Vegetables	1.53	-8.38	37.64	12.51
4	Condiments And Spices	1.33	0.38	18.80	7.15
5	House Rent	19.26	0.00	1.37	5.16
6	Milk Fresh	7.11	3.55	2.43	4.94
7	Appliances/Articles/Products For Personal	2.98	2.88	3.99	3.43
8	Sugar	1.11	2.64	11.84	3.33
9	Wheat	0.61	-5.86	11.14	2.86
10	Readymade Food	5.52	1.46	1.20	2.12
11	Tomatoes	0.35	28.32	33.45	1.95
12	Transport Services	1.75	2.01	4.01	1.74
13	Washing Soap/Detergents/Match Box	1.41	2.69	3.06	1.58
14	Potatoes	0.45	6.50	8.16	1.55
15	Rice	1.18	4.22	2.75	1.30
Total		52.16			110.11
Bottom 15 Contributors					
1	Fresh Fruits	1.44	-1.36	-17.90	-8.95
2	Liquefied Hydrocarbons	0.51	-17.89	-10.42	-1.91
3	Personal Effects N.E.C.	0.94	-2.26	-4.67	-1.91
4	Motor Fuel	2.91	-4.33	-1.42	-1.85
5	Vegetable Ghee	1.03	-2.68	-3.81	-1.78
6	Chicken	1.36	6.75	-2.76	-1.52
7	Onions	0.59	13.58	-2.21	-0.25
8	Cooking Oil	1.10	-3.54	-0.44	-0.22
9	Pulse Gram	0.17	-4.65	-2.58	-0.11
10	Pulse Moong	0.17	-3.88	-1.88	-0.07
11	Pulse Masoor	0.16	-1.71	-0.95	-0.04
12	Besan	0.08	-2.62	-0.93	-0.02
13	Mustard Oil	0.01	-4.46	-2.82	-0.01
14	Gram Whole	0.09	-1.11	-0.11	0.00
15	Communication Services	1.88	0.00	0.00	0.00
Total		12.44			-18.64

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

Items/Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Jun-23	Jul-23		
A. Ranked by Weighted Contribution					
1	Wheat flour	3.01	-8.17	13.36	16.62
2	Fresh vegetables	1.53	-8.38	37.64	12.51
3	Condiments and Spices	1.33	0.38	18.80	7.15
4	Milk fresh	7.11	3.55	2.43	4.94
5	Sugar	1.11	2.64	11.84	3.33
6	Wheat	0.61	-5.86	11.14	2.86
7	Readymade food	5.52	1.46	1.20	2.12
8	Tomatoes	0.35	28.32	33.45	1.95
9	Potatoes	0.45	6.50	8.16	1.55
10	Rice	1.18	4.22	2.75	1.30
11	Beverages	0.89	3.32	4.01	0.93
12	Milk products	0.64	4.51	2.95	0.55
13	Milk powder	0.31	1.44	5.52	0.48
14	Meat	2.04	2.50	0.68	0.45
15	Tea	0.84	0.50	0.88	0.32
Total		26.93			57.04
Bottom 15 Contributors					
1	Fresh fruits	1.44	-1.36	-17.90	-8.95
2	Vegetable ghee	1.03	-2.68	-3.81	-1.78
3	Chicken	1.36	6.75	-2.76	-1.52
4	Onions	0.59	13.58	-2.21	-0.25
5	Cooking oil	1.10	-3.54	-0.44	-0.22
6	Pulse gram	0.17	-4.65	-2.58	-0.11
7	Pulse moong	0.17	-3.88	-1.88	-0.07
8	Pulse masoor	0.16	-1.71	-0.95	-0.04
9	Besan	0.08	-2.62	-0.93	-0.02
10	Mustard oil	0.01	-4.46	-2.82	-0.01
11	Gram whole	0.09	-1.11	-0.11	0.00
12	Dessert preparation	0.04	-0.06	0.11	0.00
13	Ice cream	0.10	1.96	0.10	0.00
14	Honey	0.10	-0.17	0.24	0.01
15	Fish	0.39	0.00	0.13	0.01
Total		6.84			-12.94

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

Items/Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Jun-23	Jul-23		
A. Ranked by Weighted Contribution					
1	Electricity charges	4.56	2.90	39.88	43.87
2	House rent	19.26	0.00	1.37	5.16
3	Appliances/Articles/Products for Personal	2.98	2.88	3.99	3.43
4	Transport services	1.75	2.01	4.01	1.74
5	Washing soap/detergents/match Box	1.41	2.69	3.06	1.58
6	Drugs and medicines	1.07	0.41	2.24	0.64
7	Doctor (MBBS) clinic fee	0.40	0.89	4.63	0.61
8	Woolen cloth	0.84	1.51	2.34	0.48
9	Hospitals services	0.57	0.81	3.60	0.43
10	Household Equipment's	1.00	1.17	1.30	0.39
11	Construction input items	0.38	3.39	2.83	0.33
12	Cotton cloth	2.22	0.43	0.45	0.28
13	Marriage Hall Charges	1.75	0.75	0.59	0.27
14	Communication apparatus	0.45	0.06	1.89	0.20
15	Recreation and culture	0.65	0.23	1.36	0.16
Total		39.29			59.59
Bottom 15 Contributors					
1	Liquefied Hydrocarbons	0.51	-17.89	-10.42	-1.91
2	Personal Effects n.e.c.	0.94	-2.26	-4.67	-1.91
3	Motor fuel	2.91	-4.33	-1.42	-1.85
4	Newspapers	0.07	0.00	0.00	0.00
5	Communication Services	1.88	0.00	0.00	0.00
6	Motor vehicle tax	0.05	0.00	0.00	0.00
7	Woolen readymade garments	0.43	0.00	0.00	0.00
8	Gas charges	1.08	0.00	0.00	0.00
9	Text books	0.67	0.00	0.00	0.00
10	Therapeutic Appliances and Equipment	0.01	0.56	0.00	0.00
11	Accommodation Services	0.13	0.46	0.00	0.00
12	Electrical Appliances for Personal	0.05	0.27	0.05	0.00
13	Major tools & equipment's	0.01	0.21	0.30	0.00
14	Garbage collection	0.11	0.28	0.10	0.00
15	Carpets	0.03	0.45	0.67	0.00
Total		8.87			-5.66

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

Items/Contributors	Weights	YoY Change		Weighted Contribution (%)	
		Jul-22	Jul-23		
A. Ranked by Weighted Contribution					
1	Wheat Flour	3.43	21.51	99.52	10.65
2	Milk Fresh	10.38	21.51	34.56	10.28
3	Wheat	3.47	38.30	68.76	8.67
4	Rice	1.55	31.09	69.72	4.55
5	Readymade Food	3.80	29.25	32.96	4.33
6	Solid Fuel	4.48	21.22	31.09	4.08
7	Cigarettes	1.24	23.07	105.22	3.67
8	Tea	1.26	20.52	101.78	3.64
9	Washing Soaps, Detergents And	1.70	25.84	58.63	3.00
10	Sugar	2.03	-13.78	56.54	2.79
Total		33.34			55.66
B. Ranked by Percentage Change					
1	Text Books	0.50	12.26	129.44	1.52
2	Cigarettes	1.24	23.07	105.22	3.67
3	Tea	1.26	20.52	101.78	3.64
4	Wheat Flour	3.43	21.51	99.52	10.65
5	Dessert Preparation	0.01	16.43	71.64	0.03
6	Rice	1.55	31.09	69.72	4.55
7	Wheat	3.47	38.30	68.76	8.67
8	Wheat Products	0.11	25.20	65.02	0.22
9	Condiments And Spices	1.49	-9.44	65.00	2.79
10	Washing Soaps, Detergents And	1.70	25.84	58.63	3.00
Total		14.76			38.74
C. Ranked by Weights					
1	Milk Fresh	10.38	21.51	34.56	10.28
2	House Rent	8.61	5.90	7.45	1.63
3	Solid Fuel	4.48	21.22	31.09	4.08
4	Readymade Food	3.80	29.25	32.96	4.33
5	Wheat	3.47	38.30	68.76	8.67
6	Electricity Charges	3.44	86.72	8.38	1.21
7	Wheat Flour	3.43	21.51	99.52	10.65
8	Cotton Cloth	2.84	13.74	21.32	1.99
9	Motor Fuels	2.49	99.19	9.13	1.25
10	Vegetable Ghee	2.38	82.22	-2.48	-0.38
Total		45.32			43.71

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 31.3 percent in July-2023.

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

Items/Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Jun-23	Jul-23		
A. Ranked by Weighted Contribution					
1	Electricity Charges	3.44	2.90	39.88	33.37
2	Wheat Flour	3.43	-10.40	13.43	18.89
3	Wheat	3.47	-7.40	10.77	15.46
4	Fresh Vegetables	2.09	-7.74	26.22	11.67
5	Sugar	2.03	1.39	12.45	6.39
6	Milk Fresh	10.38	1.72	2.17	6.34
7	House Rent	8.61	0.00	1.68	2.90
8	Marriage Hall Charges	2.25	0.65	5.05	2.81
9	Potatoes	0.74	3.52	7.74	2.65
10	Tomatoes	0.51	37.32	32.57	2.50
Total		36.95			102.98
B. Ranked by Percentage Change					
1	Electricity Charges	3.44	2.90	39.88	33.37
2	Tomatoes	0.51	37.32	32.57	2.50
3	Fresh Vegetables	2.09	-7.74	26.22	11.67
4	Wheat Flour	3.43	-10.40	13.43	18.89
5	Sugar	2.03	1.39	12.45	6.39
6	Wheat	3.47	-7.40	10.77	15.46
7	Potatoes	0.74	3.52	7.74	2.65
8	Marriage Hall Charges	2.25	0.65	5.05	2.81
9	Gur	0.15	5.59	4.69	0.19
10	Condiments And Spices	1.49	1.04	4.35	2.20
Total		19.60			96.13
C. Ranked by Weights					
1	Milk Fresh	10.38	1.72	2.17	6.34
2	House Rent	8.61	0.00	1.68	2.90
3	Solid Fuel	4.48	0.09	0.87	1.11
4	Readymade Food	3.80	1.84	1.92	2.46
5	Wheat	3.47	-7.40	10.77	15.46
6	Electricity Charges	3.44	2.90	39.88	33.37
7	Wheat Flour	3.43	-10.40	13.43	18.89
8	Cotton Cloth	2.84	1.20	0.36	0.30
9	Motor Fuels	2.49	-4.64	-1.43	-1.62
10	Vegetable Ghee	2.38	-4.68	-3.15	-3.63
Total		45.32			75.58

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 3.3 percent in July-2023.

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

Items/Contributors	Weights	YoY Change		Weighted Contribution (%)	
		Jul-22	Jul-23		
A. Ranked by Weighted Contribution					
1	Wheat Flour	3.43	21.51	99.52	10.65
2	Milk Fresh	10.38	21.51	34.56	10.28
3	Wheat	3.47	38.30	68.76	8.67
4	Rice	1.55	31.09	69.72	4.55
5	Readymade Food	3.80	29.25	32.96	4.33
6	Solid Fuel	4.48	21.22	31.09	4.08
7	Cigarettes	1.24	23.07	105.22	3.67
8	Tea	1.26	20.52	101.78	3.64
9	Washing Soaps, Detergents And Match Box	1.70	25.84	58.63	3.00
10	Sugar	2.03	-13.78	56.54	2.79
11	Condiments And Spices	1.49	-9.44	65.00	2.79
12	Chicken	1.46	60.88	52.15	2.77
13	Appliances/Articles/Products For Personal	2.27	12.54	39.10	2.29
14	Marriage Hall Charges	2.25	18.53	34.21	1.99
15	Cotton Cloth	2.84	13.74	21.32	1.99
Total		43.65			67.49
Bottom 15 Contributors					
1	Onions	0.90	100.03	-34.73	-1.00
2	Vegetable Ghee	2.38	82.22	-2.48	-0.38
3	Pulse Masoor	0.21	90.46	-6.32	-0.05
4	Cooking Oil	0.60	82.70	-0.66	-0.03
5	Tomatoes	0.51	7.15	-0.56	-0.01
6	Postal Services	0.01	0.00	0.00	0.00
7	Garbage Collection	0.01	9.60	0.00	0.00
8	Communication Services	1.65	0.16	0.00	0.00
9	Water Supply	0.06	1.63	0.90	0.00
10	Mustard Oil	0.01	75.71	5.55	0.00
11	Honey	0.03	17.59	7.96	0.01
12	Accommodation Services	0.14	3.64	3.31	0.01
13	Motor Vehicle Tax	0.02	-9.07	24.88	0.01
14	Dental Services	0.02	9.61	26.55	0.01
15	Cleaning And Laundering	0.02	26.18	32.04	0.02
Total		6.57			-1.41

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

Items/Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Jun-23	Jul-23		
A. Ranked by Weighted Contribution					
1	Electricity Charges	3.44	2.90	39.88	33.37
2	Wheat Flour	3.43	-10.40	13.43	18.89
3	Wheat	3.47	-7.40	10.77	15.46
4	Fresh Vegetables	2.09	-7.74	26.22	11.67
5	Sugar	2.03	1.39	12.45	6.39
6	Milk Fresh	10.38	1.72	2.17	6.34
7	House Rent	8.61	0.00	1.68	2.90
8	Marriage Hall Charges	2.25	0.65	5.05	2.81
9	Potatoes	0.74	3.52	7.74	2.65
10	Tomatoes	0.51	37.32	32.57	2.50
11	Readymade Food	3.80	1.84	1.92	2.46
12	Condiments And Spices	1.49	1.04	4.35	2.20
13	Appliances/Articles/Products For Personal	2.27	2.50	3.42	2.01
14	Personal Grooming Services	1.54	2.30	3.63	1.83
15	Drugs And Medicines	1.58	2.15	2.73	1.24
Total		47.63			112.72
Bottom 15 Contributors					
1	Fresh Fruits	1.45	-10.40	-16.95	-9.23
2	Vegetable Ghee	2.38	-4.68	-3.15	-3.63
3	Personal Effects N.E.C.	1.21	-2.40	-4.39	-2.31
4	Motor Fuels	2.49	-4.64	-1.43	-1.62
5	Chicken	1.46	5.35	-2.48	-1.54
6	Liquefied Hydrocarbons	1.00	-14.55	-4.54	-1.51
7	Onions	0.90	2.07	-9.46	-1.47
8	Cooking Oil	0.60	-5.59	-4.00	-1.17
9	Eggs	0.57	-10.57	-2.50	-0.51
10	Pulse Moong	0.25	-4.90	-3.31	-0.19
11	Pulse Gram	0.28	-3.52	-1.32	-0.10
12	Pulse Masoor	0.21	-3.12	-1.14	-0.06
13	Gram Whole	0.11	-0.59	-1.54	-0.06
14	Besan	0.07	-1.80	-1.26	-0.03
15	Postal Services	0.01	0.00	0.00	0.00
Total		12.99			-23.43

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

Items/Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Jun-23	Jul-23		
A. Ranked by Weighted Contribution					
1	Wheat Flour	3.43	-10.40	13.43	18.89
2	Wheat	3.47	-7.40	10.77	15.46
3	Fresh Vegetables	2.09	-7.74	26.22	11.67
4	Sugar	2.03	1.39	12.45	6.39
5	Milk fresh	10.38	1.72	2.17	6.34
6	Potatoes	0.74	3.52	7.74	2.65
7	Tomatoes	0.51	37.32	32.57	2.50
8	Readymade Food	3.80	1.84	1.92	2.46
9	Condiments and Spices	1.49	1.04	4.35	2.20
10	Rice	1.55	4.63	1.38	1.12
11	Milk products	0.96	4.22	3.87	1.02
12	Tea	1.26	2.15	1.92	1.02
13	Meat	1.71	2.46	0.87	0.49
14	Beverages	0.55	1.21	2.93	0.41
15	Sweetmeat	0.40	0.33	2.16	0.26
Total		34.38			72.88
Bottom 15 Contributors					
1	Fresh fruits	1.45	-10.40	-16.95	-9.23
2	Vegetable ghee	2.38	-4.68	-3.15	-3.63
3	Chicken	1.46	5.35	-2.48	-1.54
4	Onions	0.90	2.07	-9.46	-1.47
5	Cooking oil	0.60	-5.59	-4.00	-1.17
6	Eggs	0.57	-10.57	-2.50	-0.51
7	Pulse Moong	0.25	-4.90	-3.31	-0.19
8	Pulse Gram	0.28	-3.52	-1.32	-0.10
9	Pulse Masoor	0.21	-3.12	-1.14	-0.06
10	Gram Whole	0.11	-0.59	-1.54	-0.06
11	Besan	0.07	-1.80	-1.26	-0.03
12	Fish	0.26	1.69	0.00	0.00
13	Mustard oil	0.01	-5.11	0.01	0.00
14	Honey	0.03	0.25	0.42	0.00
15	Ice Cream	0.06	4.24	0.24	0.00
Total		8.64			-17.98

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

Items/Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Jun-23	Jul-23		
A. Ranked by Weighted Contribution					
1	Electricity Charges	3.44	2.90	39.88	33.37
2	House Rent	8.61	0.00	1.68	2.90
3	Marriage Hall Charges	2.25	0.65	5.05	2.81
4	Appliances/Articles/Products for Personal	2.27	2.50	3.42	2.01
5	Personal Grooming Services	1.54	2.30	3.63	1.83
6	Drugs and Medicines	1.58	2.15	2.73	1.24
7	Washing Soaps, Detergents and Match Box	1.70	2.08	1.93	1.15
8	Solid Fuel	4.48	0.09	0.87	1.11
9	Tailoring	1.30	1.24	1.77	0.61
10	Household Equipment's	1.28	1.54	1.35	0.54
11	Transport Services	1.80	2.12	0.72	0.37
12	Cotton Cloth	2.84	1.20	0.36	0.30
13	Hosiery	0.43	1.17	1.40	0.22
14	Furniture and Furnishing	0.58	0.64	1.28	0.21
15	Readymade Garments	1.13	0.95	0.58	0.17
Total		35.23			48.86
Bottom 15 Contributors					
1	Personal Effects n.e.c.	1.21	-2.40	-4.39	-2.31
2	Motor Fuels	2.49	-4.64	-1.43	-1.62
3	Liquefied Hydrocarbons	1.00	-14.55	-4.54	-1.51
4	Postal Services	0.01	0.00	0.00	0.00
5	Newspapers	0.02	0.00	0.00	0.00
6	Garbage Collection	0.01	0.00	0.00	0.00
7	Communication Services	1.65	0.00	0.00	0.00
8	Accommodation Services	0.14	0.00	0.00	0.00
9	Motor Vehicle Tax	0.02	0.00	0.00	0.00
10	Water Supply	0.06	0.00	0.00	0.00
11	Woolen Readymade Garments	0.54	0.00	0.00	0.00
12	Text Books	0.50	0.00	0.00	0.00
13	Doctor Clinic Fee	0.51	1.66	0.00	0.00
14	Education	2.13	0.83	0.00	0.00
15	Cleaning and Laundering	0.02	1.68	0.36	0.00
Total		10.32			-5.43

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

Groups	Decrease or no change	Subdued increase (Greater than 0% but less than 5%)	Moderate increase (5% but less than 10%)	Double digit increase (10% or more)
Food & Non-Alcoholic Beverages	Chilies (Green), Onions, Lemon, Pulse Masoor (Washed), Cardamom Small (Average Quality), Vegetable Ghee Dalda/Habib Or Other Superior Quality 1 Kg Pouch, Kinnu (Average Quality),	Vegetable Ghee Dalda/Habib 2.5 Kg Tin, Mustard Oil (Average Quality),	Pulse Gram, Tomatoes, Tinda,	Honey Marhaba Bottle 500 Gm, Cardamom Large (Loose) (Average Quality), Cooking Oil Dalda Or Other Similar Brand (Sn), 5 Litre Tin, Garlic (Lehsun), Beef With Bone (Average
Alcoholic Beverages & Tobacco				Pan Prepared (Sweet With Beetle Nuts), Cigarettes Capstan 20'S Packet, Cigarettes Gold Leaf 20'S Packet,
Clothing & Footwear	Cheetah 50 Size 3-5 Servis, Gents Shoes Servis, Children Shoes Power Lite Bata, Ladies Sandal Bata, Ladies Sponge Chappal Bata, Gents Sandal Bata, Gents Shoes Paul Bata,		Pant Cloth Wash & Wear (Average Quality), Socks Nylon Local (Average Quality), Women Shalwar Kameez (Average Quality),	Dopatta Georgette (Average Quality), Tailoring Charges Pant (Men), Vest "Baniyan" For Men Average Quality, Awami Suit Gents Wash & Wear (Average Quality), Gents Sponge Chappal Bata, Pullover Gents (Average Quality), Underwear Medium Size (Average Quality), Shirt Boy Length 24"/26", Pullover Ladies Oxford/Bonanza,
Housing, Water, Elec, Gas & other Fuels	Electricity Charges 51-100 Units, Electricity Charges Upto 50 Units, Lpg 11.67 Kg Cylinder,	Charges For Refuse/Waste Collection,	House Rent Combined, Water Charges Per House, Electricity Charges 101-300 Units, Electricity Charges Combined, Cement (Local) 50 Kg Bag,	Bajri, Mason Wage Rate, Bricks New 1St Class, Painter Wage Rate, Plumber Wage Rate, Iron Bars (M.S. Bar) 1/2 " 40 Grade, Unskilled Labor Wage Rate, Electrician Charges, Sand (Black Pit), Cement Blocks (6"X8"X12"), Gas Charges 6.7438 - 10.1157 Mmbtu , Gas
Furnishing & Household Equip. Maintenance etc			Bed Sheet Double With Two Pillow Covers (Superior Quality),	Bed Sheet Single (Superior Quality), Air Cooler Super Asia Ecm-4000/Jc-1000, Plain Carpet, Household Servant Female Part Time, Sofa Set Five Seater, Dinner Set Plastic 72 Pieces Super Quality, Chair Sheesham Wood With Arm, Towel Medium Size (3' X 2'), Blanket Single
Health		Ventolin Tablets 2 Mg,	Cac 1000 Tablets Sandoz Bottle, Physiotherapist Fee Per Visit, Sugar Test (Random/Fasting) Charges Of Both, Betnovate-N Ointment 10 Gm Tube, Electronic Bp Checking Apparatus, Glucometer, Gynecologist Fee Per	Calpol Syrup 100 Mi Bottle, Sepran Tablets, Daonil Tablets 5 Mg, Hydryllin Syrup 120 Mi Bottle, Flagyl Tablets 400 Mg, Dental Extraction Fee, Dental Surgeon Fee Per Visit, Urine Test (Dr) Charges, Johar Joshanda Instant (Sachet) Packet, Blood Test (Cp) Charges,
Transport	Air Fare Economy Class Per Kilometer (National Average), Car Suzuki 800 Cc Without Ac,	Hi-Speed Diesel, Cng, Mini Bus Fare Minimum Within City,	Bus Fare Minimum Within City, Petrol Super, Bus Fare Maximum Within City, Car Tax 800 Cc To 1500 Cc,	Mini Bus Fare Maximum Within City, Auto Rickshaw Fare, Suzuki Fare Minimum Within City, Bus Fare Outside City (Ac), Train Fare Ac Sleeper Per Person, Car Toyota 1300 Cc Xli, Suzuki Fare Maximum Within City, Car Service Charges, Taxi Four Seater Fare, Train
Communication	Mobile Call Charges, Telephone Call Charges, Internet Charges (Dsl) 1 Mb (Unlimited),		Courier Charges Minimum Within Zone Outside City (Tes),	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), Urdu Book Ba/B.Sc,	Cable Charges, Personal Computer With Led Monitor (17") Dell/Hp/Acer Core I5, Laptop Dell/Hp/Acer Core I5, Display (14"-15"), English Book Ba/B.Sc, Lead Pencil Goldfish, Photostat Paper 70 Gm, Led Sony/Samsung 32" Colored, Newspaper Daily Jang, Ballpoint Pen
Education		Government University Fee M.S.C / M.A., Government Medical College/University Tuition Fee For Mbbs (1St Year), Private College Fee First Year, Government Engineering	Coaching Fee For Class Xi/Xii Science Group, Private School Fee English Medium Average Standard (Class I), Private School Fee English Medium Average Standard	Coaching Fee For Class Ix/X Science Group,
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, Tooth Brush (Shield), Wall Clock Quartz (Average Quality), Hair Style Charges (At Average Beauty Parlor), Hair Color (Kala Kola), Nail

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

Groups	Decrease or no change	Subdued increase (Greater than 0% but less than 5%)	Moderate increase (5% but less than 10%)	Double digit increase (10% or more)
Food & Non-Alcoholic Beverages	Lemon, Onions, Chilies (Green), Pulse Masoor (Washed), Vegetable Ghee Dalda/Habib Or Other Superior Quality 1 Kg Pouch, Vegetable Ghee Dalda/Habib 2.5 Kg Tin, Cooking Oil (Pouch), Tomatoes,	Tinda, Mango Kalmi (Average Quality),	Mustard Oil (Average Quality), Honey Marhaba Bottle 500 Gm, Garlic (Lehsun),	Pulse Gram, Apple (Average Quality), Beef With Bone (Average Quality), Mutton (Average Quality), Gram Whole Black (Average Quality), Fish Fresh, Jam-E-Shireen Standard Size (800 Ml), Chips (Loose), Grapes (Angoor) (Average Quality), Gram Whole Yellow (Average
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				Chaddar (Wash-N-Wear) (2X2.5 Meter), Pullover Ladies (Average Quality), Footware Gents Local (Average Quality), Shirting (Average Quality), Full Pant Boy Length 24"/26", Pullover Gents (Average Quality), Tailoring Charges Simple Suit (Female), Shirt Boy Length 24"/26", Lawn Printed (Average Quality), Linen, Ladies (Average Quality), Tailoring Charges
Housing, Water, Elec, Gas & other Fuels	Electricity Charges 51-100 Units, Electricity Charges Upto 50 Units, Lpg 11.67 Kg Cylinder, Charges For Refuse/Waste Collection,	Water Charges Per House,	House Rent Combined, Electricity Charges 101-300 Units, Electricity Charges Combined, Cement (Local) 50 Kg Bag,	Carpenter Wage Rate, Mason Wage Rate, Unskilled Labor Wage Rate, Bajri, Painter Wage Rate, Plumber Wage Rate, Kerosene Oil, Bricks New 1st Class, Coal, Electricity Charges Above 1000 Units, Sand (Black Pit), Electricity Charges 301-1000 Units,
Furnishing & Household Equip. Maintenance etc				Dinner Set Plastic 72 Pieces Super Quality, Blanket Single (Sn), Lota Plastic Medium Size (Average Quality), Cot Iron (Charpai), Readymade Quilt (3 Kg), Bucket (Balti) Plastic Medium Size, Towel Medium Size (2' X 3'), Energy Saver Philips 14 Watt, Tea
Health			Amoxil Capsule 250 Mg, Cost Of Surgery (C-Section), Physiotherapist Fee Per Visit, Cac 1000 Tablets Sandoz Bottle,	Daonil Tablets 5 Mg, Inderal Tablets 10 Mg, Hydryllin Syrup 120 Ml Bottle, X-Ray (Chest) Charges, Johar Joshanda Instant (Sachet) Packet, Blood Test (Cp) Charges, Doctor (Mbbs) Clinic Fee, Dental Surgeon
Transport	Air Fare Economy Class Per Kilometer, Car Suzuki 800 Cc Without Ac,	Hi-Speed Diesel, Bus Fare Outside City (Non Ac),	Cng, Petrol Super,	Motorcycle Service Charges, Car Tax 800 Cc To 1500 Cc, Chingchi Rickshaw Charges, Minimum, Bicycle, Tire Cycle, Tire Car Mehran Tubeless (General), Train Fare Economy Per Person, Mobil Oil (Havoline 20W-50), Tire Motorcycle Cd 70
Communication	Postal Registration Charges, Mobile Call Charges, Telephone Call Charges, Internet Charges (Dsl) 1 Mb (Unlimited),			Mobile Set With Rear Camera And Without Touch Screen,
Recreation & Culture				Cable Charges, Led Sony/Samsung 32" Colored, Personal Computer With Led Monitor (17") Dell/HP/Acer Core I5, Pets Feed, Exercise Book (With Lines) 80 To 100 Pages, Lead Pencil Goldfish, Newspaper Daily Jang, Ballpoint Pen Local, English Books Class Vi, English Books
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), Tea Prepared Ordinary, Cooked Beef At Average Hotel, Marriage Hall Charges With Furniture, Cooked Daal At Average Hotel,
Miscellaneous				Tooth Brush (Shield), Hair Color (Kala Kola), Trunk Medium Size (Average Quality), Talcum Powder Viceroy/Black Cat, Hair Removing Cream (Eu-Cream) 30Ml Tube, Shaving Cream (Touchme Large/Admiral), Tooth Paste Colgate 75 Gm, Artificial Jewelry (Locket Set) (Average Quality), Shaving Charges, Purse

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

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

Table A23: International Commodity Prices/Indices

Commodity/Indices	Jun-22	Jul-22	Jun-23	Jul-23
Energy				
Crude Oil (US\$ per barrel)*	116.8	105.1	73.3	79.0
Energy Index (2010 = 100)	173.5	171.8	95.2	100.8
Food				
Rice (\$/MT)	444.0	418.0	514.0	547.0
Wheat (\$/MT)##	459.6	382.5	345.5	345.5
Sugar, World (\$/KG)	0.4	0.4	0.5	0.5
Palm Oil (\$/MT)	1,501.1	1,056.6	817.0	878.5
Soybean Oil (\$/MT)	1,751.8	1,533.4	1,007.1	1,135.7
Non-Food Non-Energy				
Cotton Outlook 'A' Index	3.4	2.9	2.0	2.1
Metal Price Index (2010 =	121.8	106.1	106.7	107.0
Copper (\$/MT)	9,024.5	7,544.8	8,396.5	8,476.7
Aluminum (\$/MT)	2,563.4	2,408.4	2,184.8	2,159.7
Iron Ore (\$ cents/dry MT)	130.7	108.6	113.5	114.4
Tin (\$/MT)	31,559.3	25,395.8	27,216.7	28,743.1
Nickel (\$/MT)	25,658.6	21,481.9	21,233.3	21,091.3
Zinc (\$/MT)	3,629.7	3,105.4	2,375.5	2,404.7
Lead (\$/MT)	2,066.4	1,985.2	2,122.9	2,109.1
Uranium (\$/MT)	49.8	47.8	56.1	56.4
DAP (\$/MT)	783.8	784.0	454.6	458.8
Urea (\$/MT)	690.0	601.0	287.5	334.6

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 fatch

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

DAP: Diammonium Phosphate

Table A24: National CPI Data Series Original and Seasonally Adjusted					
Original Series					
Period	FY20	FY21	FY22	FY23	FY24
Jul	123.86	135.38	146.76	183.35	235.23
Aug	125.89	136.23	147.61	187.84	
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	195.890	
Dec	130.45	140.86	158.16	196.860	
Jan	133.04	140.56	158.78	202.530	
Feb	131.64	143.09	160.61	211.280	
Mar	131.69	143.61	161.88	219.140	
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	
Seasonally Adjusted Series					
Jul	123.62	135.17	146.55	183.15	235.04
Aug	125.77	136.15	147.56	187.79	
Sep	126.40	137.83	150.20	185.01	
Oct	128.01	139.41	152.23	192.67	
Nov	129.65	140.45	156.64	193.95	
Dec	130.54	140.97	158.32	197.10	
Jan	133.73	141.37	159.77	203.87	
Feb	132.17	143.56	161.03	211.70	
Mar	132.13	144.00	162.23	219.51	
Apr	130.51	144.96	164.30	224.08	
May	131.68	145.96	166.02	229.06	
Jun	133.03	145.97	177.20	229.42	

Table A25: Urban CPI Data Series Original and Seasonally Adjusted					
Original Series					
Period	FY20	FY21	FY22	FY23	FY24
Jul	124.95	134.73	146.41	180.97	228.47
Aug	126.77	135.82	147.12	185.72	
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	124.45	134.21	145.83	180.27	227.60
Aug	126.38	135.41	146.68	185.14	
Sep	127.23	136.98	149.47	181.14	
Oct	128.78	138.22	151.42	188.62	
Nov	130.14	139.19	155.88	189.51	
Dec	130.90	140.03	157.89	192.02	
Jan	133.65	140.48	158.83	197.68	
Feb	131.92	143.18	159.58	205.47	
Mar	132.08	143.54	160.61	213.48	
Apr	130.39	144.65	162.31	216.63	
May	131.41	145.65	163.62	221.03	
Jun	132.67	145.51	174.48	222.29	

Table A26: Rural CPI Data Series Original and Seasonally Adjusted					
Original Series					
Period	FY20	FY21	FY22	FY23	FY24
Jul	122.22	136.36	147.28	186.94	245.44
Aug	124.56	136.84	148.34	191.04	
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	
Seasonally Adjusted Series					
Jul	122.37	136.63	147.64	187.50	246.26
Aug	124.85	137.26	148.88	191.80	
Sep	125.16	139.10	151.32	190.87	
Oct	126.86	141.22	153.45	198.80	
Nov	128.91	142.35	157.79	200.67	
Dec	130.00	142.38	158.96	204.76	
Jan	133.85	142.71	161.18	213.21	
Feb	132.55	144.14	163.22	221.11	
Mar	132.20	144.69	164.69	228.60	
Apr	130.68	145.42	167.31	235.34	
May	132.08	146.44	169.64	241.17	
Jun	133.58	146.67	181.31	240.19	

Table A27: National CPI Monthly & Average Seasonal Factors						
Period	FY20	FY21	FY22	FY23	FY24	Average
Jul	100.19	100.15	100.14	100.11	100.08	100.14
Aug	100.10	100.06	100.04	100.02		100.06
Sep	100.36	100.36	100.36	100.36		100.36
Oct	100.89	100.90	100.91	100.91		100.90
Nov	100.96	100.98	100.98	101.00		100.98
Dec	99.93	99.92	99.90	99.88		99.91
Jan	99.49	99.43	99.38	99.34		99.41
Feb	99.60	99.67	99.74	99.80		99.70
Mar	99.67	99.73	99.78	99.83		99.75
Apr	100.06	100.09	100.12	100.15		100.10
May	99.49	99.50	99.52	99.52		99.51
Jun	99.29	99.21	99.16	99.11		99.19

Table A28: Urban CPI Monthly & Average Seasonal Factors						
Period	FY20	FY21	FY22	FY23	FY24	Average
Jul	100.40	100.39	100.40	100.39	100.38	100.39
Aug	100.31	100.30	100.30	100.31		100.31
Sep	100.39	100.40	100.41	100.42		100.40
Oct	100.76	100.76	100.77	100.77		100.77
Nov	100.70	100.70	100.69	100.68		100.69
Dec	99.75	99.74	99.73	99.71		99.73
Jan	99.34	99.27	99.20	99.13		99.24
Feb	99.55	99.61	99.66	99.71		99.63
Mar	99.55	99.62	99.67	99.71		99.64
Apr	100.16	100.18	100.20	100.22		100.19
May	99.68	99.69	99.70	99.70		99.69
Jun	99.41	99.34	99.28	99.24		99.32

Period	FY20	FY21	FY22	FY23	FY24	Average
Jul	99.88	99.81	99.75	99.70	99.67	99.76
Aug	99.77	99.70	99.64	99.60		99.68
Sep	100.31	100.30	100.28	100.27		100.29
Oct	101.12	101.11	101.11	101.09		101.11
Nov	101.36	101.40	101.42	101.45		101.41
Dec	100.22	100.19	100.16	100.12		100.17
Jan	99.68	99.67	99.65	99.63		99.66
Feb	99.69	99.78	99.86	99.93		99.81
Mar	99.85	99.90	99.96	100.01		99.93
Apr	99.92	99.96	100.00	100.04		99.98
May	99.20	99.23	99.26	99.27		99.24
Jun	99.09	99.03	98.97	98.93		99.00

Table A30: National CPI (MoM) Original & Seasonally Adjusted					
Original Series					
Period	FY20	FY21	FY22	FY23	FY24
Jul	1.83	2.50	1.34	4.34	3.46
Aug	1.64	0.63	0.58	2.45	
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	
Seasonally Adjusted Series					
Jul	0.97	1.61	0.40	3.36	2.45
Aug	1.74	0.72	0.68	2.53	
Sep	0.50	1.23	1.80	-1.48	
Oct	1.28	1.15	1.35	4.14	
Nov	1.28	0.74	2.90	0.66	
Dec	0.69	0.37	1.07	1.62	
Jan	2.44	0.28	0.92	3.44	
Feb	-1.17	1.55	0.79	3.84	
Mar	-0.03	0.30	0.75	3.69	
Apr	-1.23	0.67	1.28	2.09	
May	0.90	0.69	1.05	2.22	
Jun	1.03	0.00	6.73	0.16	

Table A31: Urban CPI (MoM) Original & Seasonally Adjusted Series					
Original Series					
Period	FY20	FY21	FY22	FY23	FY24
Jul	1.98	2.15	1.29	4.46	3.57
Aug	1.46	0.81	0.48	2.64	
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	
Seasonally Adjusted Series					
Jul	1.04	1.16	0.22	3.32	2.39
Aug	1.55	0.89	0.58	2.70	
Sep	0.67	1.16	1.90	-2.16	
Oct	1.22	0.90	1.31	4.13	
Nov	1.06	0.70	2.95	0.47	
Dec	0.58	0.61	1.29	1.33	
Jan	2.10	0.32	0.60	2.95	
Feb	-1.29	1.92	0.47	3.94	
Mar	0.12	0.25	0.64	3.90	
Apr	-1.28	0.78	1.06	1.48	
May	0.78	0.69	0.81	2.03	
Jun	0.96	-0.10	6.64	0.57	

Table A32: Rural CPI (MoM) Original & Seasonally Adjusted Series					
Original Series					
Period	FY20	FY21	FY22	FY23	FY24
Jul	1.60	3.02	1.40	4.17	3.30
Aug	1.91	0.35	0.72	2.19	
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	
Seasonally Adjusted Series					
Jul	0.86	2.28	0.66	3.41	2.53
Aug	2.02	0.46	0.84	2.29	
Sep	0.25	1.34	1.64	-0.49	
Oct	1.36	1.52	1.41	4.15	
Nov	1.62	0.80	2.83	0.94	
Dec	0.84	0.03	0.74	2.04	
Jan	2.97	0.23	1.40	4.13	
Feb	-0.98	1.00	1.27	3.70	
Mar	-0.26	0.38	0.90	3.39	
Apr	-1.15	0.51	1.59	2.95	
May	1.08	0.70	1.40	2.48	
Jun	1.13	0.15	6.88	-0.41	

Figures

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

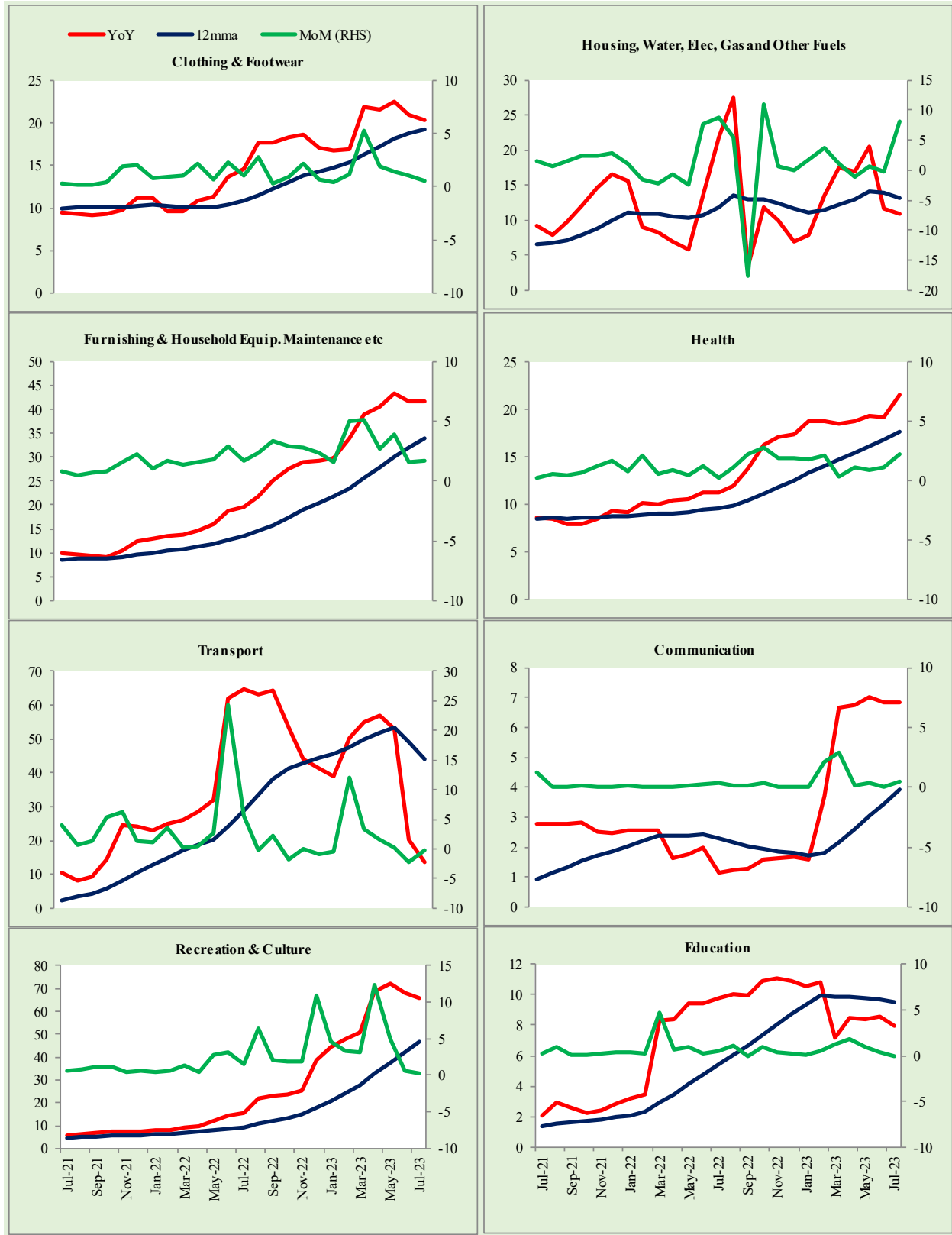


Figure A2: Urban CPI Inflation – Non Food Groups (YoY, 12MMA, MoM in percent)

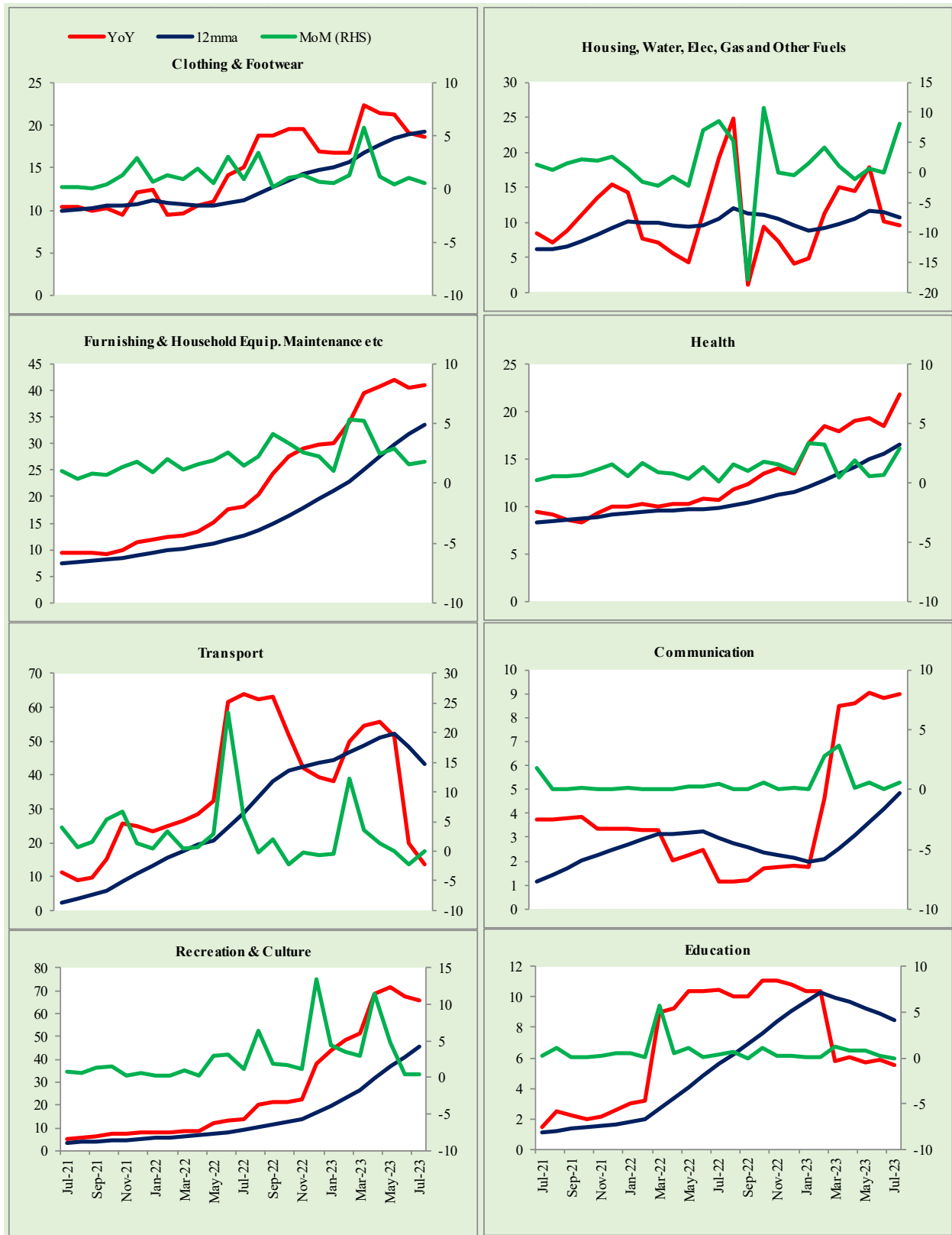


Figure A3: Rural CPI Inflation – Non Food Groups (YoY, 12MMA, MoM in percent)

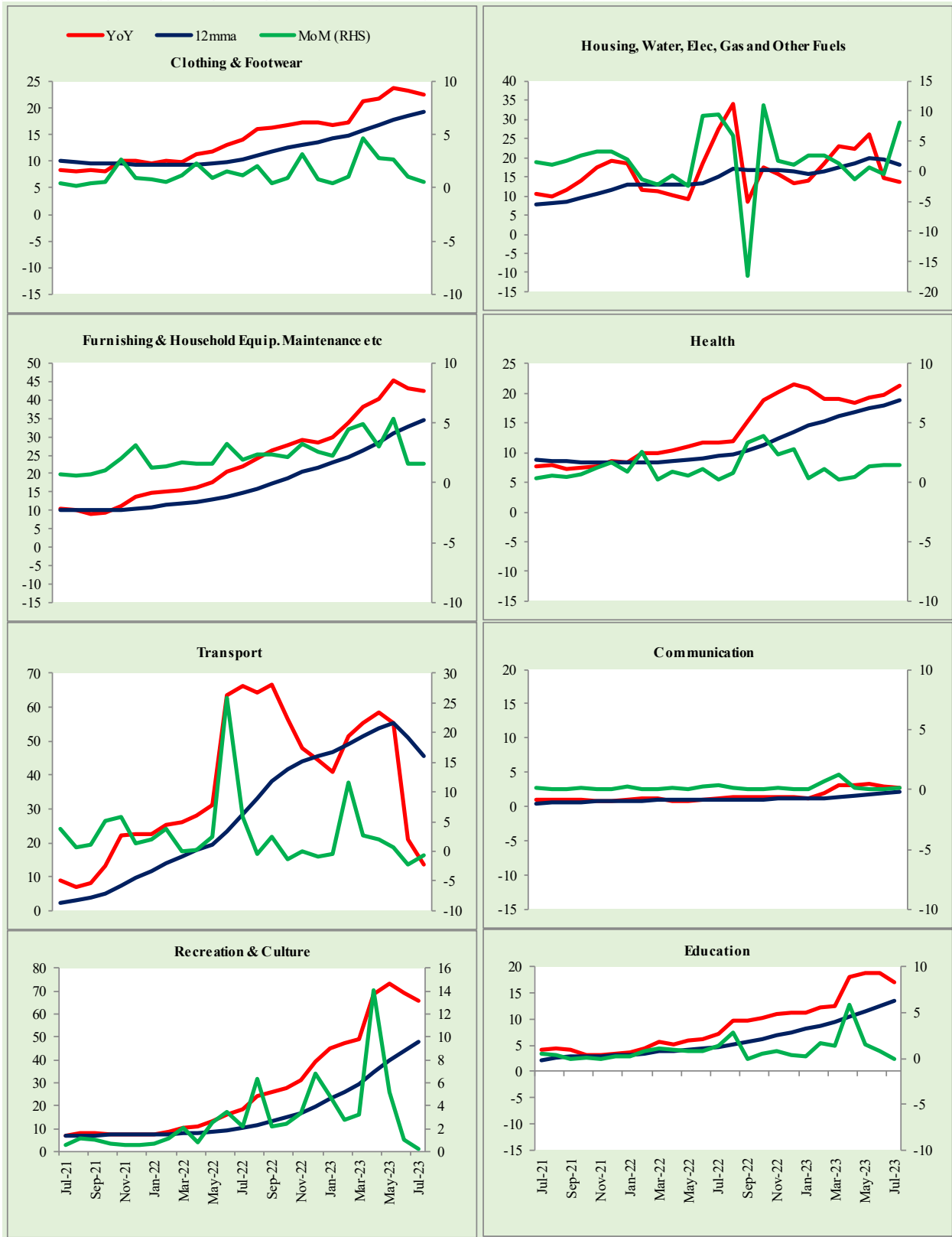
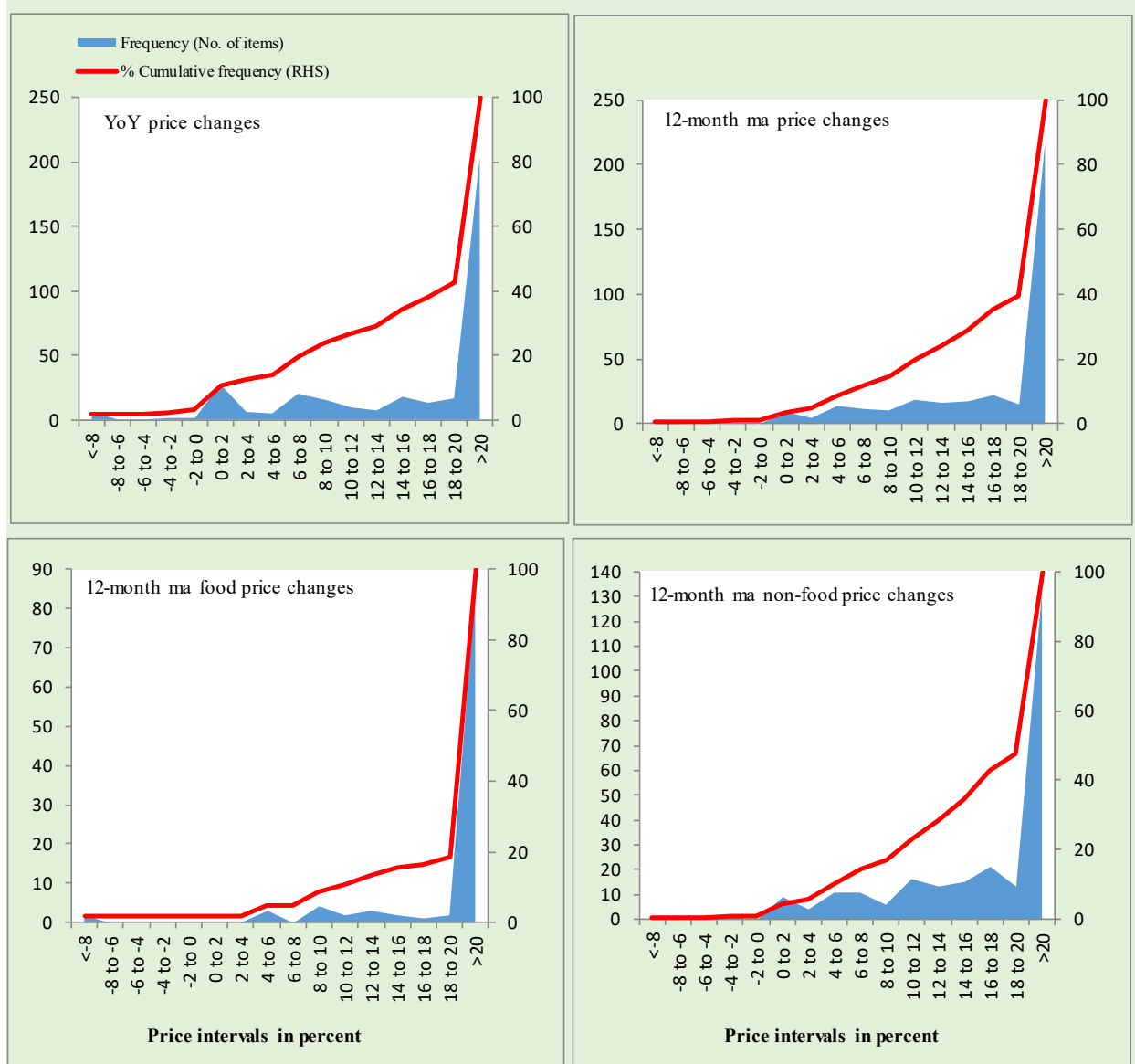
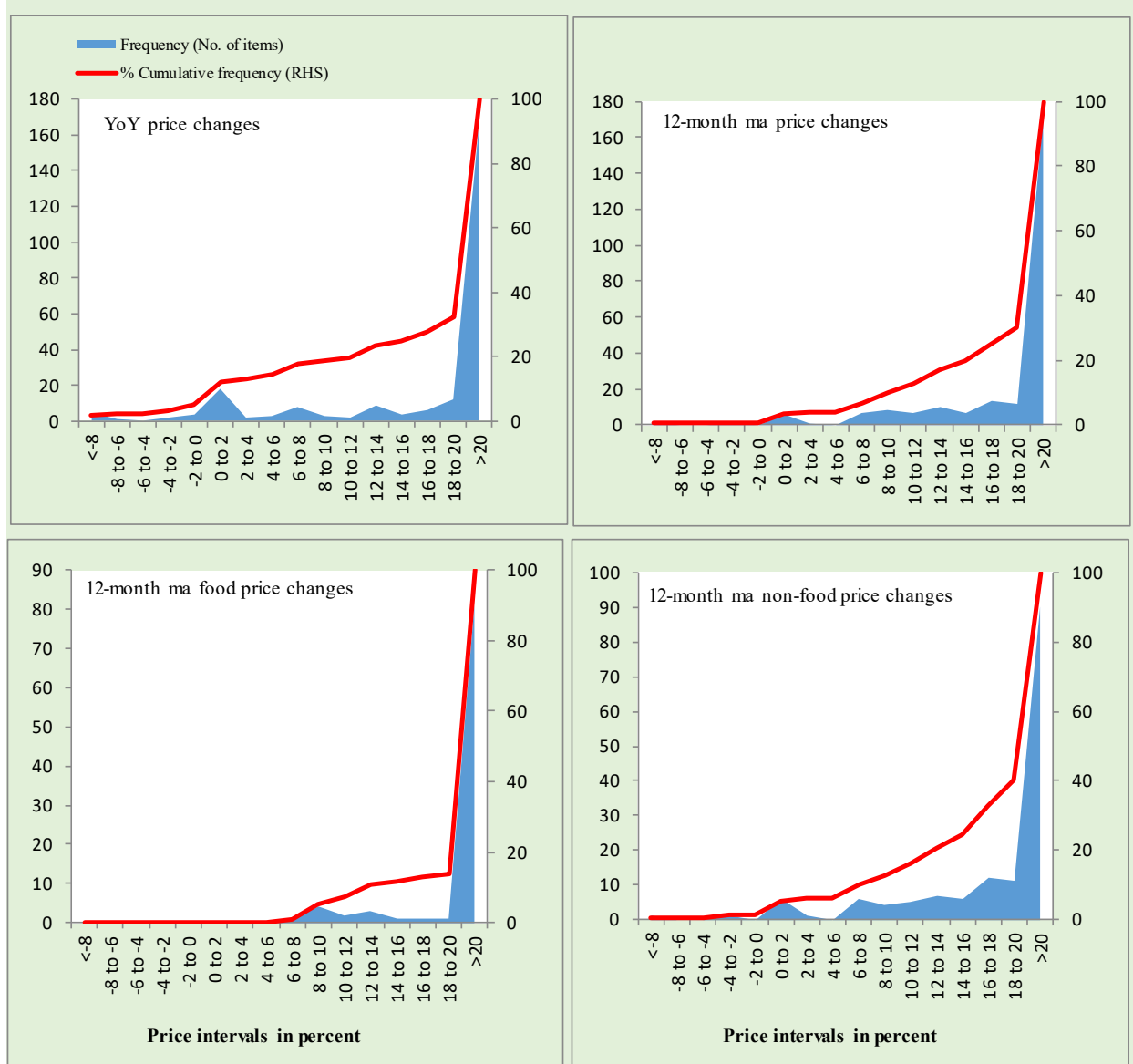


Figure A4: Frequency Distribution of Price Changes of Urban CPI Items (YoY)



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

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



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

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

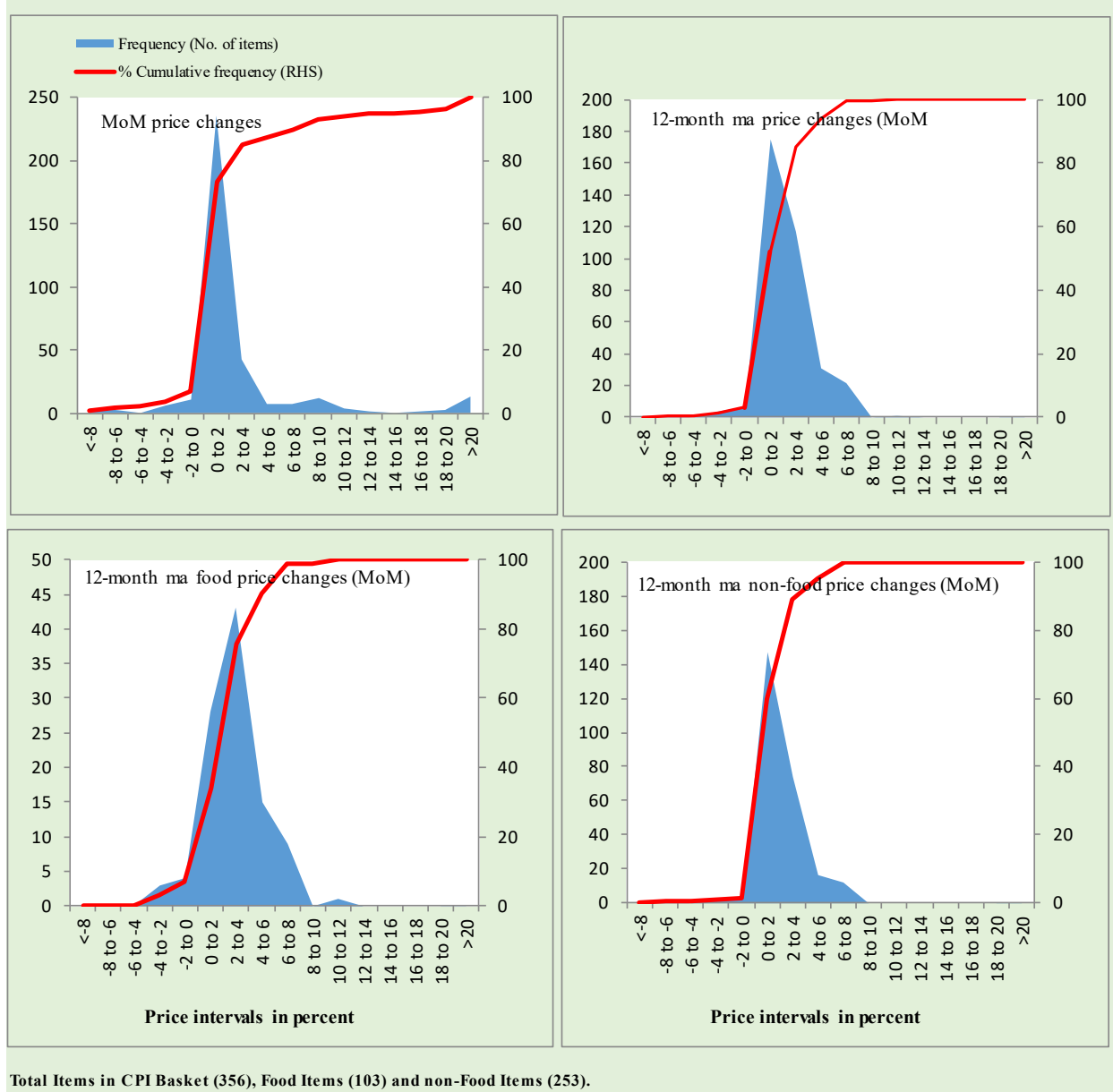
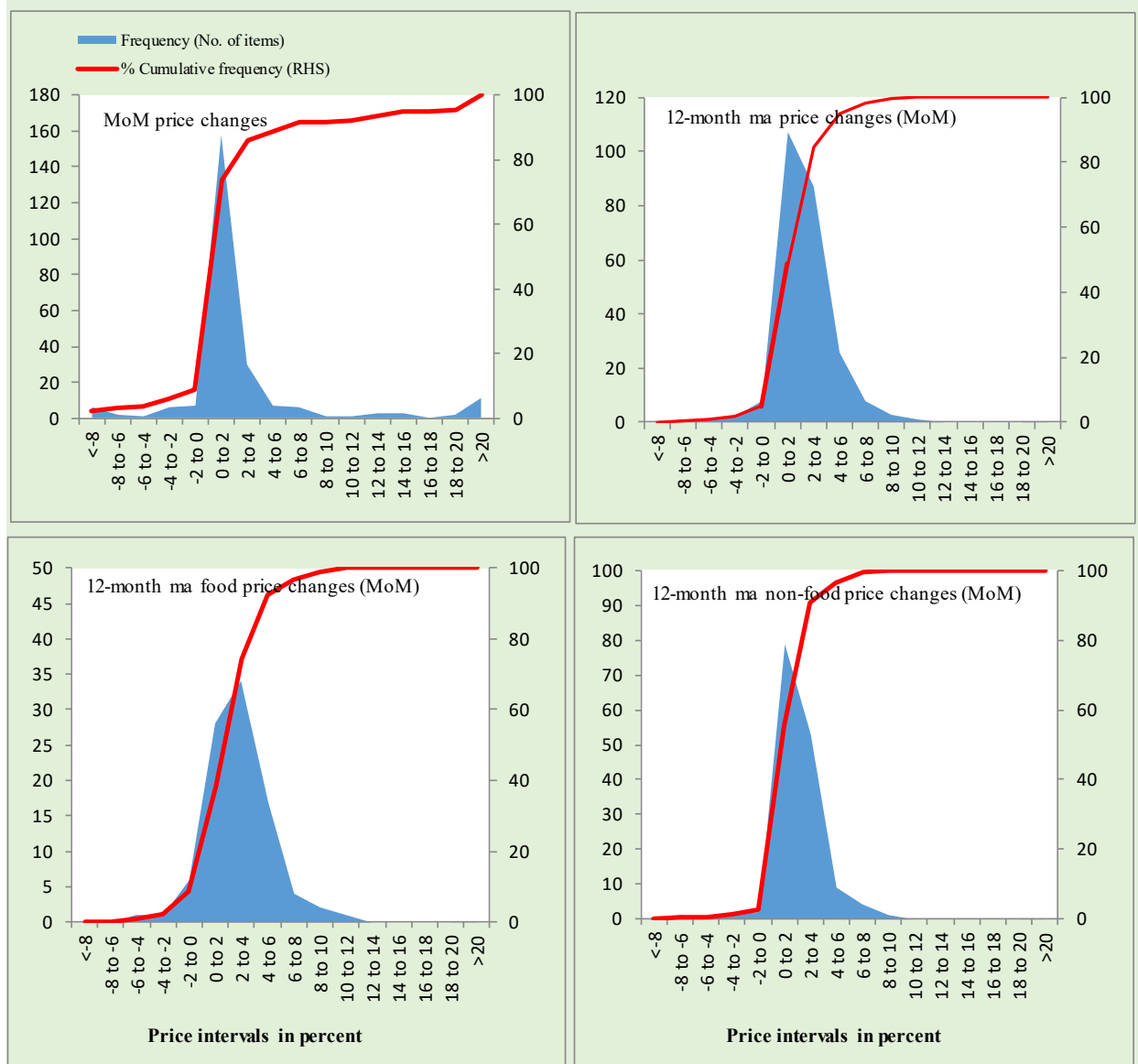
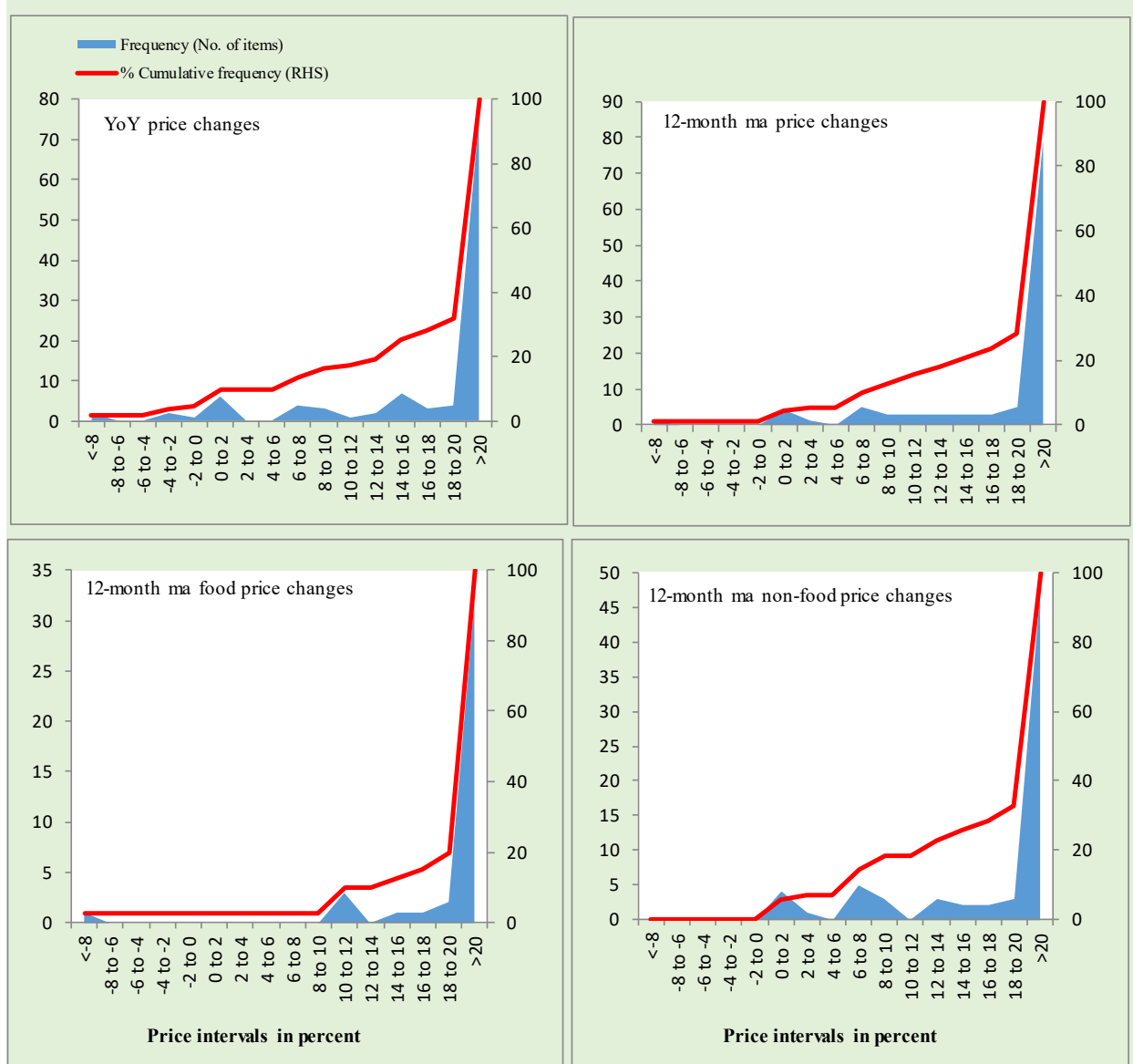


Figure A7: Frequency Distribution of Price Changes of Rural CPI Items (MoM)



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

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



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

Technical Notes

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Where C_{it} : Contribution of i^{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^{th} item

π_{it} : Inflation of i^{th} item

π_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 constant².

² 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.