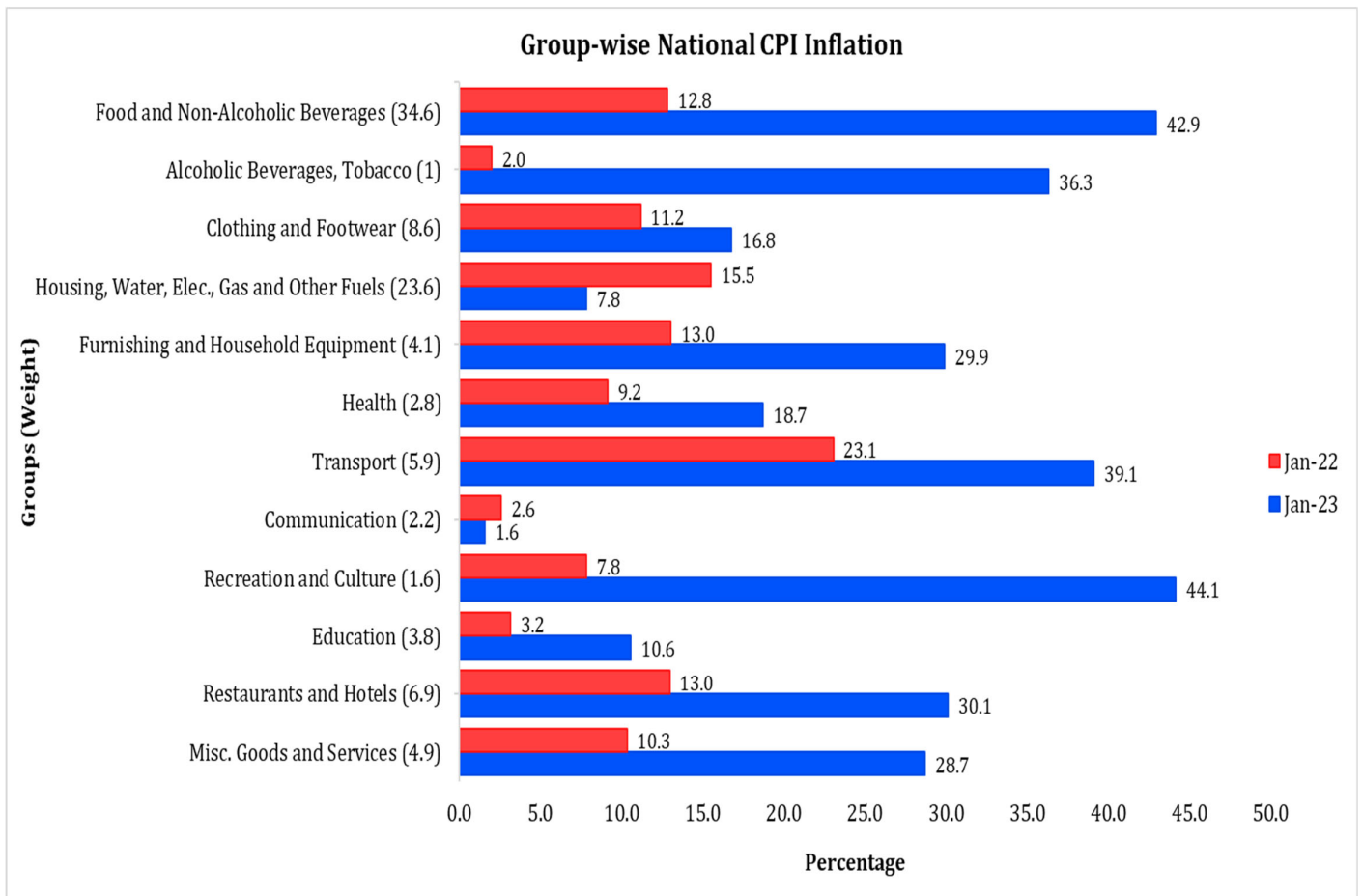




# Inflation Monitor

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- Provided by Pakistan Bureau of Statistics (PBS), for domestic inflation analysis
- Retrieved from Bloomberg, Trading Economics, IMF & World Bank websites for global inflation analysis

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## 1. Inflation in Brief

- I. National CPI Inflation on year-on-year (YoY) basis increased to 27.6 percent in January 2023 from 24.5 percent in previous month. It stood at 13.0 percent in the corresponding month of last year. On month-on-month (MoM) basis, National CPI Inflation increased to 2.9 percent in January 2023 from 0.5 percent in previous month. It was recorded 0.4 percent during the corresponding month of last year.
- II. Urban CPI Inflation (YOY) increased to 24.4 percent in January 2023 from 21.6 percent in previous month. It stood at 13.0 percent during the corresponding month of last year. On MoM basis, Urban CPI Inflation increased to 2.4 percent in January 2023 from 0.3 percent in the previous month. It stood at 0.1 percent during corresponding month of last year. Seasonally adjusted MoM CPI showed an inflation of 2.0 percent in January 2023 compared to an inflation of 1.4 percent in the previous month.
- III. Rural CPI Inflation (YoY) increased to 32.3 percent in January 2023 from 28.8 percent in previous month. It was recorded 12.9 percent during the corresponding month of last year. Rural CPI Inflation (on MoM basis) increased to 3.6 percent in January 2023 from 0.7 percent in the previous month. It stood at 0.9 percent during corresponding month of last year. Seasonally adjusted (MoM) CPI showed an inflation of 4.3 percent in January 2023 as compared to an inflation of 1.7 percent in previous month.
- IV. Urban Core (Non-food, Non-energy (NFNE)) Inflation on YoY basis increased to 15.4 percent in January 2023 from 14.7 percent in previous month. It stood at 8.2 percent during corresponding month of last year. On MoM basis, Urban Core (NFNE) Inflation increased to 1.4 percent in January 2023 from 1.2 percent in previous month. It stood at 0.8 percent during the corresponding month of last year.
- V. Rural Core (Non-food, Non-energy (NFNE)) Inflation on YOY basis increased to 19.4 percent in January 2023 from 19.0 percent in previous month. It stood at 9.0 percent during the corresponding month of last year. On MoM basis, it remained same at 1.5 percent in January 2023 as compared to previous month. It was recorded 1.2 percent during the corresponding month of last year.
- VI. Urban Core Inflation (trimmed) on YoY basis increased to 20.9 percent in January 2023 from 19.4 percent in previous month. It stood at 10.6 percent during the corresponding month of last year. On MoM basis, Urban Core Inflation (trimmed) increased to 1.5 percent in January 2023 from 0.8 percent in previous month. It stood at 0.5 percent during the corresponding month of last year.
- VII. Rural Core Inflation (trimmed) on YoY basis increased to 27.8 percent in January 2023 from 26.4 percent in previous month. It was recorded 10.9 percent during the corresponding month of last year. On MoM basis, Rural Core Inflation (trimmed) increased to 2.1 percent in January 2023 from 1.5 percent in previous month. It stood at 1.1 percent during corresponding month of last year.

- VIII. WPI Inflation on YoY basis increased to 28.5 percent in January 2023 from 27.1 percent in previous month. It stood at 24.0 percent during the corresponding month of last year. On MoM basis, it increased to 1.8 percent in January 2023 as compared to a deflation of 0.7 percent in previous month. It stood at 0.6 percent during the corresponding month of last year.
- IX. SPI Inflation on YoY basis increased to 31.7 percent in January 2023 from 29.7 percent in previous month. During corresponding month of last year, SPI Inflation stood at 19.5 percent. On MoM basis, SPI inflation increased to 1.3 percent in January 2023 from 0.3 percent in previous month. A deflation of 0.2 percent was observed during corresponding month of last year.

## 2. Heat Maps of CPI inflation

Heat map visually elaborates the evolution of inflation. 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. The observed inflation is compared with the benchmark inflation target of 11.5 percent<sup>1</sup> for FY23. Green areas indicate low inflation pressures whereas red areas indicate higher inflationary pressures.

Heat Map of National, Urban and Rural CPI inflation (YoY)														
		Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23
Headline	National	13.0	12.2	12.7	13.4	13.8	21.3	24.9	27.3	23.2	26.6	23.8	24.5	27.6
	Urban	13.0	11.5	11.9	12.2	12.4	19.8	23.6	26.2	21.2	24.6	21.6	21.6	24.4
	Rural	12.9	13.3	13.9	15.1	15.9	23.6	26.9	28.8	26.1	29.5	27.2	28.8	32.3
Food	Urban	13.3	14.3	14.5	15.6	15.5	24.0	27.4	28.8	30.8	34.7	29.7	32.7	39.0
	Rural	11.8	14.6	15.5	17.7	19.0	27.0	29.6	30.2	32.7	37.2	33.5	37.9	45.2
Core	Urban	8.2	7.8	8.9	9.1	9.7	11.5	12.0	13.8	14.4	14.9	14.6	14.7	15.4
	Rural	9.0	9.4	10.3	10.9	11.5	13.6	14.6	16.5	17.6	18.2	18.5	19.0	19.4

Source: Pakistan Bureau of Statistics



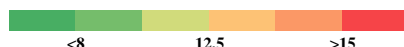
Heat Map of National, Urban and Rural CPI inflation (MoM)														
		Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23
Headline	National	0.4	1.2	0.8	1.6	0.4	6.3	4.3	2.4	-1.2	4.7	0.8	0.5	2.9
	Urban	0.1	0.9	0.7	1.6	0.3	6.2	4.5	2.6	-2.1	4.5	0.4	0.3	2.4
	Rural	0.9	1.5	1.0	1.6	0.6	6.6	4.2	2.2	0.2	5.0	1.3	0.7	3.6
Food	Urban	-0.8	2.2	1.8	3.7	1.0	5.3	4.3	1.6	5.2	4.5	0.0	0.0	3.9
	Rural	0.4	2.6	2.3	2.8	1.3	6.0	3.7	1.2	5.7	6.1	0.5	0.1	5.7
Core	Urban	0.8	0.8	1.2	1.1	0.7	2.0	1.2	1.8	0.9	1.3	0.8	1.2	1.4
	Rural	1.2	0.9	1.1	1.2	0.9	2.3	1.6	1.8	1.4	1.5	2.1	1.5	1.5

Source: Pakistan Bureau of Statistics



Heat Map of National CPI inflation (YoY)														
	Weights	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23
General	100.00	13.0	12.2	12.7	13.4	13.8	21.3	24.9	27.3	23.2	26.6	23.8	24.5	27.6
Food and Non-Alcoholic Beverages	34.58	12.8	14.7	15.3	17.0	17.3	25.9	28.8	29.5	31.7	36.2	31.2	35.5	42.9
Alcoholic Beverages, Tobacco	1.02	2.0	2.1	1.8	5.1	10.1	17.6	22.5	25.8	32.7	34.6	35.9	36.2	36.3
Clothing and Footwear	8.60	11.2	9.7	9.7	10.8	11.3	13.7	14.6	17.6	17.7	18.3	18.6	17.1	16.8
Housing, Water, Elec., Gas and Other Fuels	23.63	15.5	9.0	8.3	7.1	5.8	13.5	21.8	27.6	3.4	11.9	9.9	7.0	7.8
Furnishing and Household Equipment Maintenance	4.10	13.0	13.4	13.8	14.7	16.1	18.8	19.7	21.9	25.1	27.6	29.1	29.2	29.9
Health	2.79	9.2	10.1	10.0	10.4	10.6	11.3	11.2	11.9	13.8	16.2	17.1	17.5	18.7
Transport	5.91	23.1	25.0	26.3	28.3	31.8	62.2	64.7	63.1	64.5	53.4	44.2	41.2	39.1
Communication	2.21	2.6	2.5	2.6	1.6	1.8	2.0	1.2	1.2	1.3	1.6	1.6	1.7	1.6
Recreation and Culture	1.59	7.8	8.2	9.3	9.7	12.3	14.4	15.4	21.8	22.8	23.7	25.6	38.5	44.1
Education	3.79	3.2	3.4	8.3	8.4	9.5	9.5	9.8	10.0	10.0	10.9	11.1	10.9	10.6
Restaurants and Hotels	6.92	13.0	14.4	14.6	14.6	16.0	21.9	25.0	27.4	28.8	30.4	28.4	27.4	30.1
Misc. Goods and Services	4.87	10.3	10.1	12.4	12.8	13.3	15.8	17.2	20.0	22.9	22.4	23.0	25.8	28.7

Source: Pakistan Bureau of Statistics



<sup>1</sup> As per Annual Plan 2022-23 published by Planning Commission of Pakistan.

Heat Map of Urban CPI inflation (YoY)														
	Weights	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23
General	100.00	13.0	11.5	11.9	12.2	12.4	19.8	23.6	26.2	21.2	24.6	21.6	21.6	24.4
Food and Non-Alcoholic Beverages	30.42	13.6	14.5	14.8	16.0	15.8	24.6	27.8	28.9	30.7	34.8	28.9	32.6	39.5
Alcoholic Beverages, Tobacco	0.85	2.0	2.0	1.5	4.8	9.4	18.3	21.7	25.8	34.1	35.4	37.2	37.3	37.3
Clothing and Footwear	8.01	12.4	9.4	9.6	10.5	11.0	14.2	15.0	18.8	18.9	19.5	19.6	17.0	16.8
Housing, Water, Elec., Gas and Other Fuels	27.03	14.2	7.8	7.1	5.6	4.4	11.3	19.2	24.8	1.0	9.5	7.3	4.1	5.0
Furnishing and Household Equipment Maintenance	4.09	11.9	12.4	12.6	13.5	15.2	17.6	18.2	20.3	24.3	27.6	29.0	29.7	30.0
Health	2.31	10.0	10.2	10.0	10.3	10.3	10.9	10.8	11.8	12.3	13.6	14.1	13.5	16.7
Transport	6.14	23.4	24.8	26.3	28.6	32.2	61.5	63.8	62.4	63.3	51.7	42.1	39.2	38.0
Communication	2.35	3.4	3.3	3.3	2.0	2.3	2.5	1.1	1.2	1.2	1.7	1.8	1.8	1.8
Recreation and Culture	1.73	8.1	8.0	8.7	8.9	11.9	13.3	13.9	20.4	21.1	21.4	22.3	38.0	43.6
Education	4.88	3.0	3.2	9.0	9.2	10.4	10.4	10.5	10.1	10.0	11.1	11.1	10.8	10.4
Restaurants and Hotels	7.41	13.2	15.0	14.5	14.5	14.5	21.2	24.7	27.4	29.1	31.8	29.5	28.6	32.4
Misc. Goods and Services	4.77	10.1	9.6	11.9	12.0	12.2	15.1	16.8	20.1	23.1	23.7	23.8	25.9	28.8

Source: Pakistan Bureau of Statistics

<8                      12.5                      >15

Heat Map of Rural CPI inflation (YoY)														
	Weights	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23
General	100.00	12.9	13.3	13.9	15.1	15.9	23.6	26.9	28.8	26.1	29.5	27.2	28.8	32.3
Food and Non-Alcoholic Beverages	40.87	12.0	15.0	15.9	18.2	19.0	27.4	29.9	30.2	32.8	37.9	33.7	38.7	46.8
Alcoholic Beverages, Tobacco	1.28	2.0	2.3	2.3	5.5	11.0	16.9	23.4	25.8	31.1	33.7	34.4	35.0	35.2
Clothing and Footwear	9.48	9.7	10.0	9.8	11.3	11.7	13.1	14.0	16.2	16.3	16.8	17.4	17.2	16.7
Housing, Water, Elec., Gas and Other Fuels	18.49	18.5	11.6	11.1	10.3	9.1	18.4	27.6	33.9	8.6	17.3	15.6	13.2	14.0
Furnishing and Household Equipment Maintenance	4.10	14.8	15.0	15.6	16.4	17.5	20.5	22.0	24.2	26.2	27.7	29.2	28.6	29.8
Health	3.51	8.3	10.0	10.0	10.4	10.9	11.8	11.7	12.0	15.2	18.9	20.2	21.4	20.7
Transport	5.56	22.5	25.4	26.2	27.9	31.0	63.4	66.3	64.2	66.6	54.9	47.9	44.6	41.0
Communication	1.99	1.1	1.1	1.1	0.8	0.8	1.0	1.2	1.4	1.4	1.3	1.4	1.4	1.2
Recreation and Culture	1.38	7.4	8.5	10.5	11.0	13.0	16.3	18.2	24.3	25.7	27.7	31.3	39.4	45.1
Education	2.13	3.7	4.4	5.6	5.1	6.0	6.2	7.2	9.8	9.8	10.2	11.1	11.3	11.2
Restaurants and Hotels	6.19	12.6	13.3	14.6	14.7	18.5	23.0	25.4	27.5	28.2	27.9	26.4	25.2	26.0
Misc. Goods and Services	5.02	10.8	10.7	13.1	13.9	14.9	16.8	17.7	19.7	22.6	20.5	21.9	25.6	28.5

Source: Pakistan Bureau of Statistics

<8                      12.5                      >15

Heat Map of National CPI inflation (MoM)														
	Weights	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23
General	100.00	0.4	1.2	0.8	1.6	0.4	6.3	4.3	2.4	-1.2	4.7	0.8	0.5	2.9
Food and Non-Alcoholic Beverages	34.58	-0.5	2.5	2.3	3.7	0.9	5.5	4.1	1.3	5.8	5.6	0.1	-0.1	5.0
Alcoholic Beverages, Tobacco	1.02	0.1	0.3	0.0	3.1	4.9	7.0	4.1	2.7	5.9	1.8	1.1	0.5	0.2
Clothing and Footwear	8.60	0.8	1.0	1.0	2.1	0.7	2.3	1.1	2.8	0.3	1.0	2.2	0.7	0.5
Housing, Water, Elec., Gas and Other Fuels	23.63	1.0	-1.6	-2.2	-0.7	-2.3	7.7	8.8	5.5	-17.7	10.9	0.6	0.0	1.8
Furnishing and Household Equipment Maintenance	4.10	1.1	1.8	1.4	1.6	1.8	2.9	1.7	2.3	3.4	2.9	2.8	2.4	1.6
Health	2.79	0.7	2.1	0.6	0.9	0.5	1.2	0.2	1.2	2.2	2.8	1.9	1.9	1.8
Transport	5.91	1.0	3.6	0.3	0.4	2.7	24.4	5.7	-0.3	2.2	-1.8	-0.1	-0.8	-0.5
Communication	2.21	0.1	0.0	0.0	0.0	0.1	0.2	0.4	0.1	0.1	0.4	0.0	0.1	0.0
Recreation and Culture	1.59	0.4	0.5	1.3	0.4	2.8	3.2	1.6	6.3	2.0	1.9	2.0	10.9	4.5
Education	3.79	0.4	0.3	4.7	0.6	1.0	0.3	0.5	1.1	0.0	1.0	0.4	0.3	0.1
Restaurants and Hotels	6.92	1.0	1.7	0.9	0.2	1.8	5.8	2.9	2.3	2.2	2.5	1.9	1.3	3.1
Misc. Goods and Services	4.87	0.8	1.1	1.6	0.8	1.2	3.3	1.6	2.7	3.8	0.9	2.3	3.0	3.2

Source: Pakistan Bureau of Statistics

<0.00                      0.75                      >1.50

Heat Map of Urban CPI inflation (MoM)														
	Weights	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23
General	100.00	0.1	0.9	0.7	1.6	0.3	6.2	4.5	2.6	-2.1	4.5	0.4	0.3	2.4
Food and Non-Alcoholic Beverages	30.42	-1.1	2.3	2.1	4.3	0.9	5.0	4.3	1.4	5.4	4.8	-0.3	-0.3	4.1
Alcoholic Beverages, Tobacco	0.85	0.0	0.2	0.1	3.3	4.6	8.2	2.9	3.4	6.8	1.3	1.6	0.2	0.1
Clothing and Footwear	8.01	0.7	1.3	0.9	2.0	0.5	3.0	1.0	3.4	0.1	1.0	1.3	0.7	0.6
Housing, Water, Elec., Gas and Other Fuels	27.03	0.6	-1.6	-2.2	-0.6	-2.3	7.0	8.6	5.2	-17.8	10.9	-0.1	-0.5	1.4
Furnishing and Household Equipment Maintenance	4.09	0.9	2.0	1.1	1.6	2.0	2.6	1.5	2.3	4.1	3.3	2.6	2.3	1.1
Health	2.31	0.5	1.6	0.9	0.8	0.4	1.4	0.1	1.6	1.0	1.7	1.6	1.1	3.4
Transport	6.14	0.4	3.4	0.5	0.6	2.9	23.5	5.6	-0.2	2.0	-2.2	-0.1	-0.7	-0.4
Communication	2.35	0.1	0.0	0.0	0.0	0.2	0.2	0.4	0.0	0.1	0.6	0.0	0.1	0.0
Recreation and Culture	1.73	0.3	0.2	0.9	0.2	3.0	3.1	1.2	6.3	2.0	1.7	1.1	13.4	4.3
Education	4.88	0.5	0.1	5.7	0.6	1.1	0.1	0.3	0.7	0.0	1.1	0.2	0.2	0.1
Restaurants and Hotels	7.41	0.6	2.0	0.7	0.2	0.6	6.6	3.3	2.3	2.8	3.0	1.8	1.6	3.6
Misc. Goods and Services	4.77	0.7	1.2	1.8	0.7	1.1	3.7	1.4	3.4	3.9	1.4	1.7	2.4	3.1

Source: Pakistan Bureau of Statistics

<0.00                      0.75                      >1.50

Heat Map of Rural CPI inflation (MoM)														
	Weights	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23
General	100.00	0.9	1.5	1.0	1.6	0.6	6.6	4.2	2.2	0.2	5.0	1.3	0.7	3.6
Food and Non-Alcoholic Beverages	40.87	0.2	2.8	2.5	3.1	0.8	6.1	3.8	1.2	6.2	6.6	0.4	0.0	6.0
Alcoholic Beverages, Tobacco	1.28	0.3	0.3	0.0	2.8	5.3	5.6	1.9	4.8	2.5	0.6	0.9	0.4	0.4
Clothing and Footwear	9.48	0.8	0.6	1.1	2.3	0.9	1.6	1.2	2.0	0.5	1.0	3.2	0.8	0.4
Housing, Water, Elec., Gas and Other Fuels	18.49	1.9	-1.4	-2.3	-0.8	-2.5	9.2	9.4	6.0	-17.5	10.9	1.8	1.1	2.6
Furnishing and Household Equipment Maintenance	4.10	1.3	1.3	1.7	1.6	1.5	3.3	2.0	2.4	2.4	2.2	3.2	2.6	2.3
Health	3.51	0.9	2.5	0.2	0.9	0.6	1.1	0.3	0.8	3.4	3.9	2.3	2.8	0.4
Transport	5.56	2.0	3.9	0.0	0.2	2.5	25.9	5.7	-0.5	2.5	-1.3	0.0	-0.9	-0.5
Communication	1.99	0.2	0.0	0.1	0.1	0.0	0.2	0.4	0.2	0.1	0.0	0.1	0.0	0.1
Recreation and Culture	1.38	0.7	1.2	2.0	0.8	2.5	3.4	2.2	6.4	2.2	2.4	3.4	6.8	4.9
Education	2.13	0.2	0.8	1.1	1.0	0.8	0.9	1.4	2.8	0.0	0.5	0.8	0.4	0.2
Restaurants and Hotels	6.19	1.6	1.0	1.2	0.3	3.9	4.4	2.2	2.4	1.2	1.7	2.3	0.7	2.3
Misc. Goods and Services	5.02	1.0	0.8	1.4	1.0	1.3	2.8	2.0	1.9	3.7	0.2	3.2	3.9	3.3

Source: Pakistan Bureau of Statistics

<0.00                      0.75                      >1.50

Heat Map of Rural CPI inflation (YoY)														
	Weights	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23
Rural	100.00	12.9	13.3	13.9	15.1	15.9	23.6	26.9	28.8	26.1	29.5	27.2	28.8	32.3
Food	45.95	11.8	14.6	15.5	17.7	19.0	27.0	29.6	30.2	32.7	37.2	33.5	37.9	45.2
Non-perishable	40.16	12.8	12.4	13.7	15.8	17.0	25.5	29.3	29.6	29.7	31.9	31.8	35.7	44.4
Perishable	5.79	6.6	35.8	32.8	34.4	33.7	41.2	33.5	34.3	52.6	74.2	43.8	59.5	64.3
Non Food	54.05	13.9	12.2	12.5	12.8	13.1	20.4	24.5	27.5	20.1	22.4	21.4	20.7	20.9
Energy	11.41	32.7	21.9	20.4	19.8	19.3	46.6	61.2	67.8	28.8	36.9	30.7	26.2	25.7
NFNE (Core)	42.64	9.0	9.4	10.3	10.9	11.5	13.6	14.6	16.5	17.6	18.2	18.5	19.0	19.4
HRI	8.61	5.9	5.9	5.9	5.7	5.7	5.7	5.9	5.9	5.9	5.9	5.9	5.9	6.9
Core Excl HRI	34.03	9.7	10.3	11.4	12.2	12.9	15.5	16.8	19.1	20.4	21.2	21.5	22.1	22.4

Source: Pakistan Bureau of Statistics

<8                                      12.5                                      >15

Heat Map of Urban CPI inflation (YoY)														
	Weights	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23
Urban	100.00	13.0	11.5	11.9	12.2	12.4	19.8	23.6	26.2	21.2	24.6	21.6	21.6	24.4
Food	36.80	13.3	14.3	14.5	15.6	15.5	24.0	27.4	28.8	30.8	34.7	29.7	32.7	39.0
Non-perishable	32.34	14.7	11.8	13.0	14.4	15.0	23.5	27.1	28.2	27.9	29.4	27.1	29.6	36.7
Perishable	4.46	6.3	34.1	28.0	25.6	20.6	32.4	32.4	33.5	48.3	67.0	38.6	52.9	59.3
Non Food	63.20	12.8	9.9	10.4	10.2	10.4	17.3	21.3	24.7	15.2	18.2	16.4	14.8	15.6
Energy	9.47	38.1	20.2	18.0	15.7	14.1	48.8	70.2	80.7	18.9	34.1	24.5	15.4	16.3
NFNE (Core)	53.73	8.2	7.8	8.9	9.1	9.7	11.5	12.0	13.8	14.4	14.9	14.6	14.7	15.4
HRI	19.26	6.1	6.1	6.1	5.6	5.6	5.6	5.6	5.6	5.6	5.3	5.3	5.3	5.4
Core Excl HRI	34.47	9.3	8.7	10.5	11.0	11.9	14.7	15.5	18.2	19.2	20.1	19.6	19.7	20.8

Source: Pakistan Bureau of Statistics

<8                                      12.5                                      >15

Heat Map of Rural CPI inflation (MoM)														
	Weights	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23
Rural	100.00	0.9	1.5	1.0	1.6	0.6	6.6	4.2	2.2	0.2	5.0	1.3	0.7	3.6
Food	45.95	0.4	2.6	2.3	2.8	1.3	6.0	3.7	1.2	5.7	6.1	0.5	0.1	5.7
Non-perishable	40.16	1.0	1.4	2.8	0.6	2.8	6.2	3.5	0.7	4.2	3.7	1.7	2.6	7.4
Perishable	5.79	-5.1	13.3	0.5	20.0	-10.7	5.2	6.0	3.9	18.4	22.2	-5.5	-13.2	-2.2
Non Food	54.05	1.4	0.4	-0.2	0.5	0.0	7.1	4.6	3.1	-4.9	3.9	2.1	1.4	1.5
Energy	11.41	1.9	-0.9	-4.0	-1.8	-2.8	24.3	13.4	6.4	-21.0	11.8	2.2	0.8	1.5
NFNE (Core)	42.64	1.2	0.9	1.1	1.2	0.9	2.3	1.6	1.8	1.4	1.5	2.1	1.5	1.5
HRI	8.61	2.1	0.0	0.0	1.0	0.0	0.0	1.4	0.0	0.0	1.3	0.0	0.0	3.1
Core Excl HRI	34.03	1.0	1.1	1.3	1.3	1.0	2.9	1.7	2.2	1.7	1.6	2.5	1.8	1.2

Source: Pakistan Bureau of Statistics

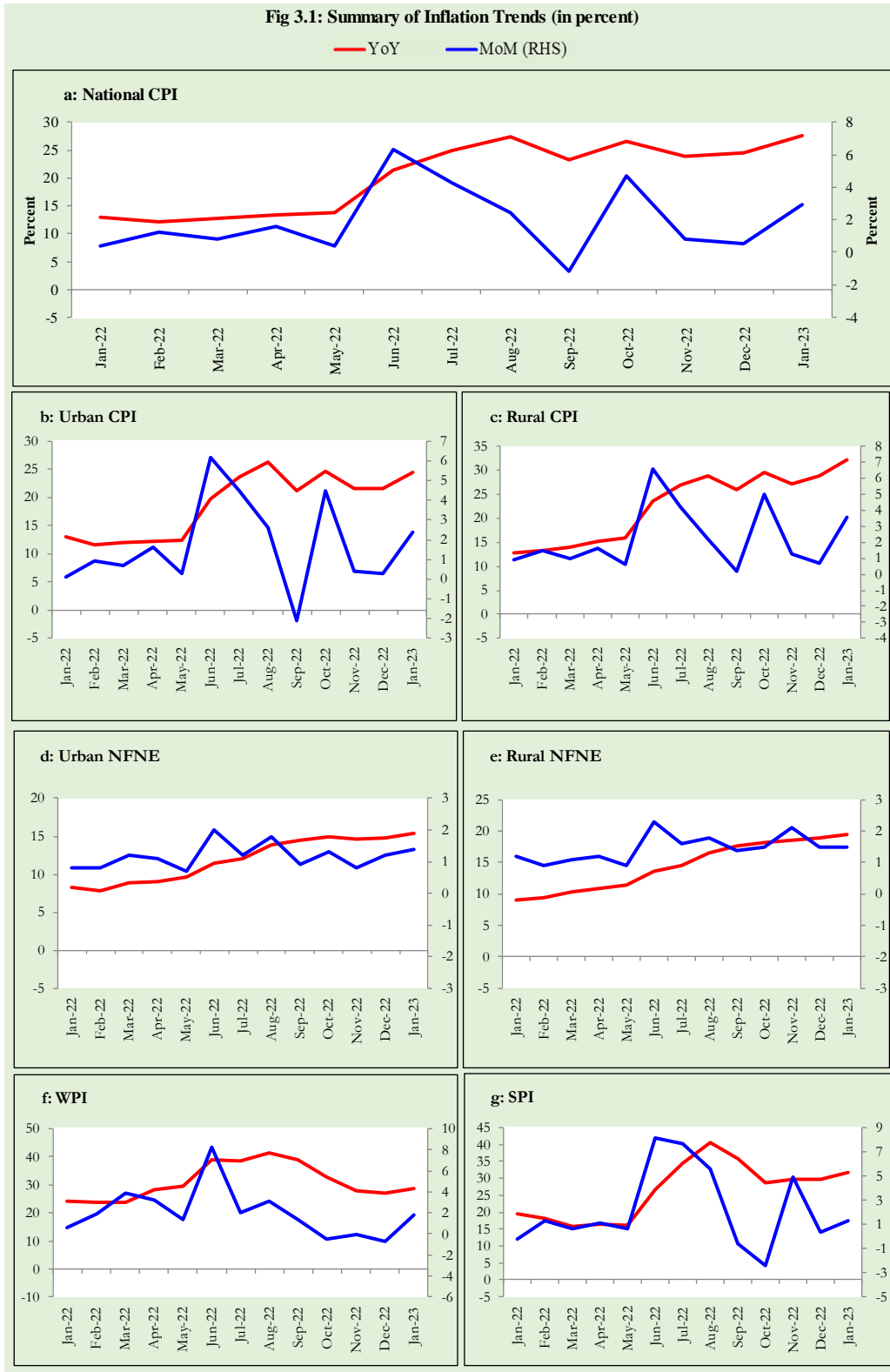
<0.00                      0.75                      >1.50

Heat Map of Urban CPI inflation (MoM)														
	Weights	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23
Urban	100.00	0.1	0.9	0.7	1.6	0.3	6.2	4.5	2.6	-2.1	4.5	0.4	0.3	2.4
Food	36.80	-0.8	2.2	1.8	3.7	1.0	5.3	4.3	1.6	5.2	4.5	0.0	0.0	3.9
<i>Non-perishable</i>	32.34	-0.4	0.5	2.6	1.7	3.1	4.9	3.8	1.2	4.0	2.2	0.7	2.2	5.0
<i>Perishable</i>	4.46	-5.4	14.7	-1.1	20.8	-10.8	5.5	7.3	2.8	14.0	18.5	-4.4	-12.0	-1.4
Non Food	63.20	0.6	0.2	-0.1	0.3	-0.1	6.8	4.6	3.3	-6.6	4.5	0.6	0.6	1.2
<i>Energy</i>	9.47	-0.4	-2.3	-5.9	-3.4	-4.6	32.2	18.3	8.4	-31.1	19.5	-0.2	-1.9	0.4
<i>NFNE (Core)</i>	53.73	0.8	0.8	1.2	1.1	0.7	2.0	1.2	1.8	0.9	1.3	0.8	1.2	1.4
<i>HRI</i>	19.26	1.5	0.0	0.0	1.1	0.0	0.0	1.5	0.0	0.0	1.1	0.0	0.0	1.7
<i>Core Excl HRI</i>	34.47	0.4	1.1	1.9	1.0	1.1	3.0	1.1	2.7	1.4	1.4	1.2	1.7	1.3

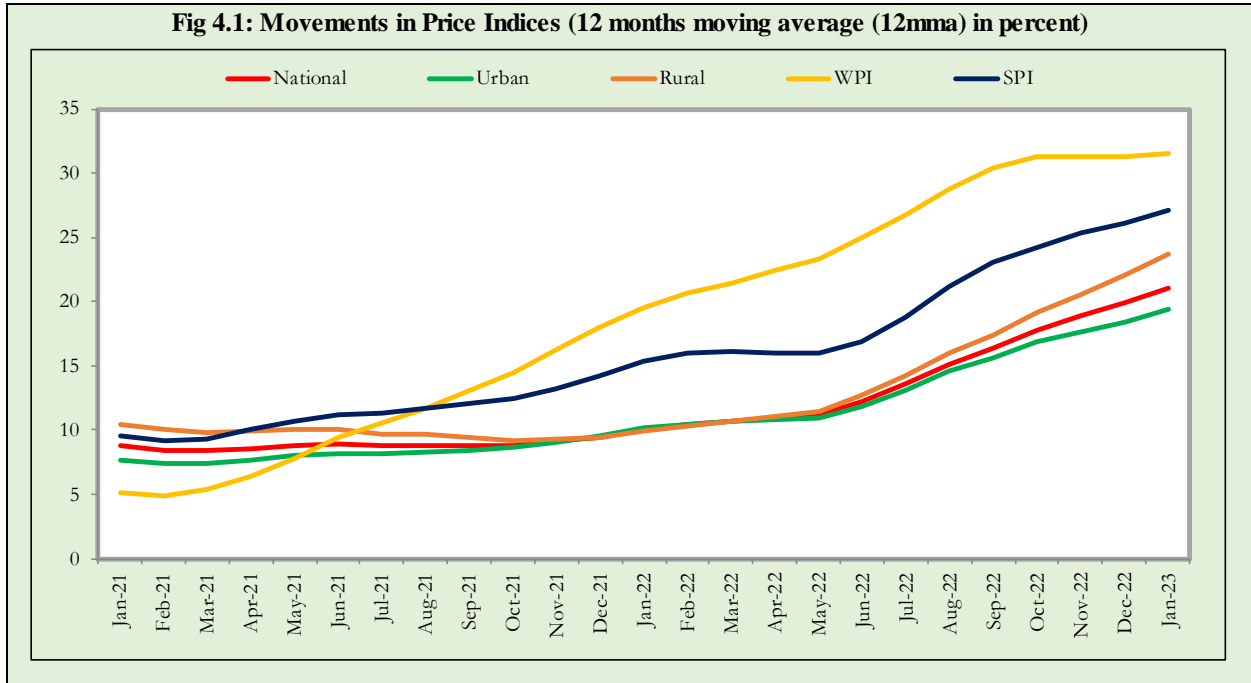
Source: Pakistan Bureau of Statistics

<0.00                      0.75                      >1.50

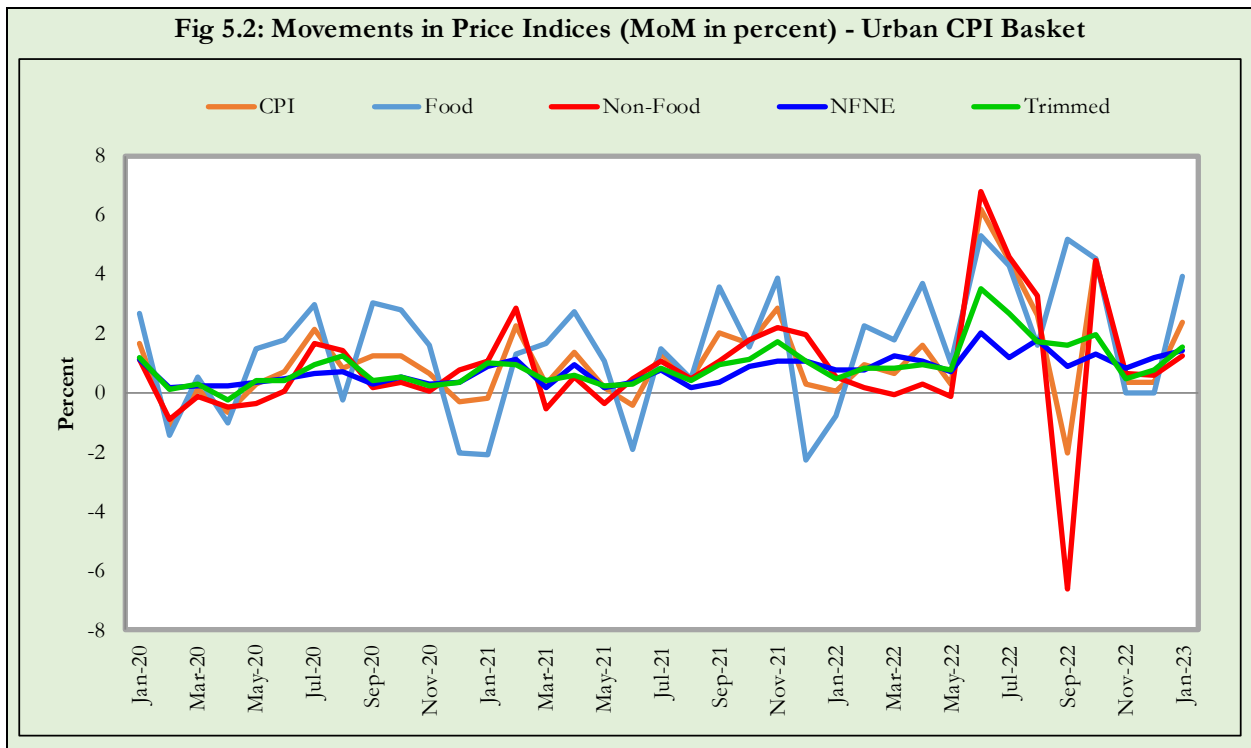
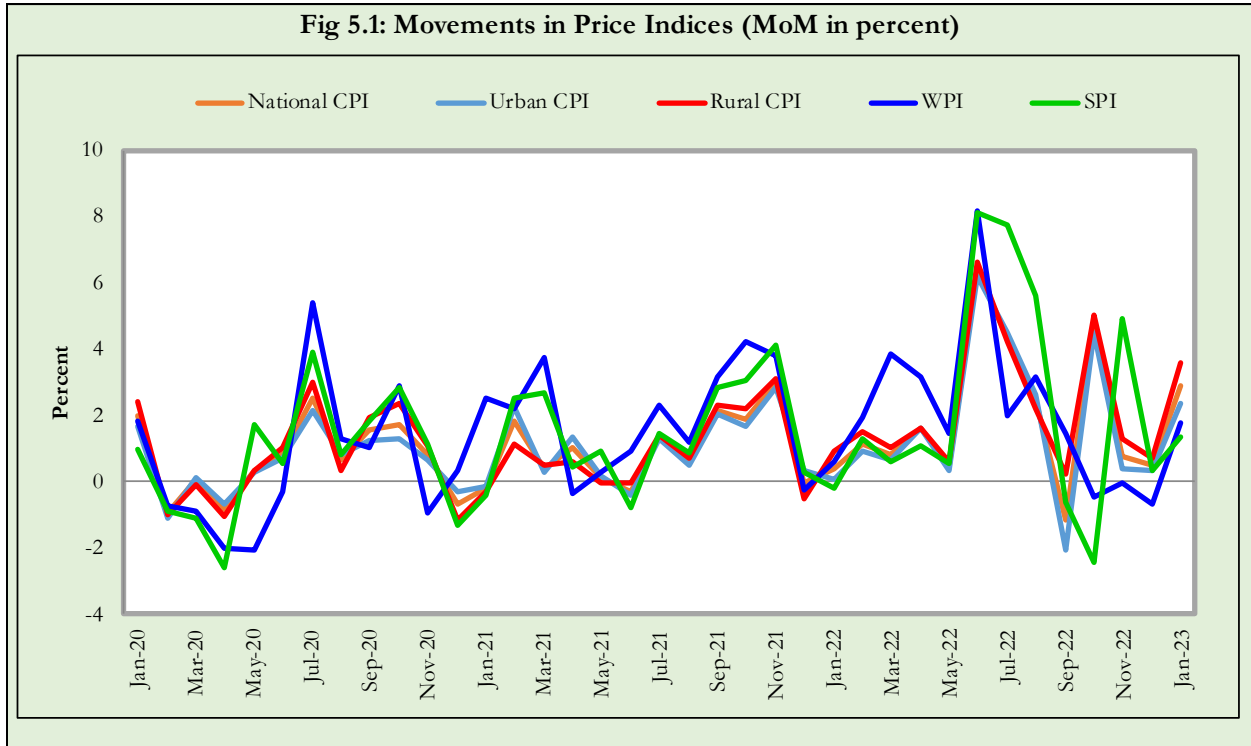
### 3. Trends in Inflation

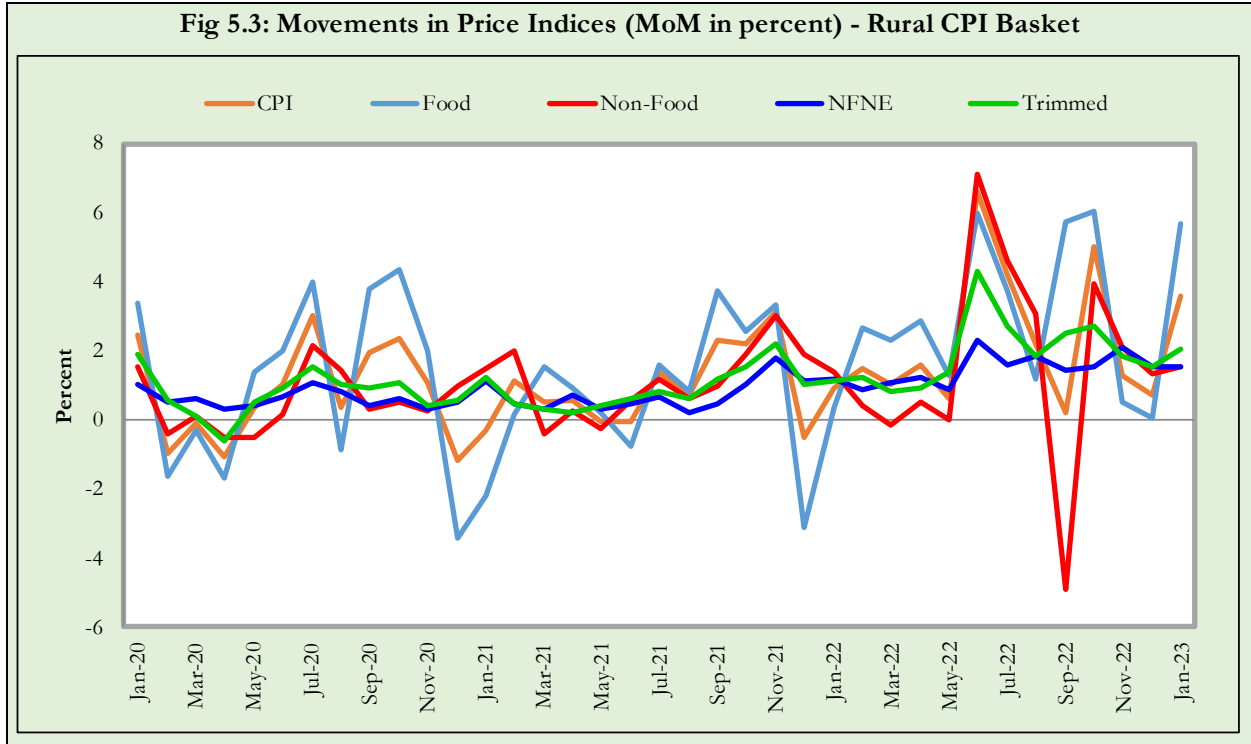


#### 4. Movement in Price Indices (Moving Averages)



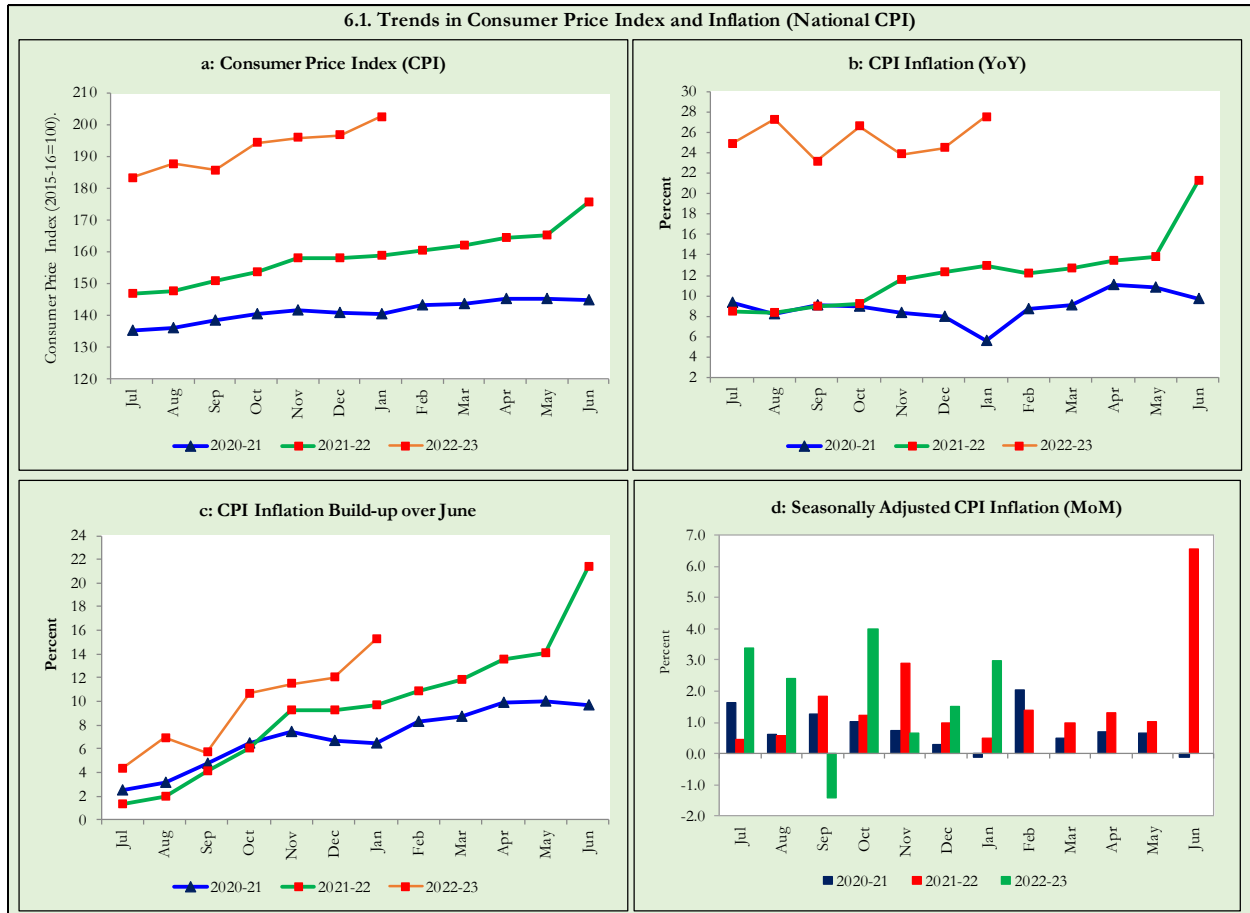
### 5. Movement in Price Indices (Month-on-Month)



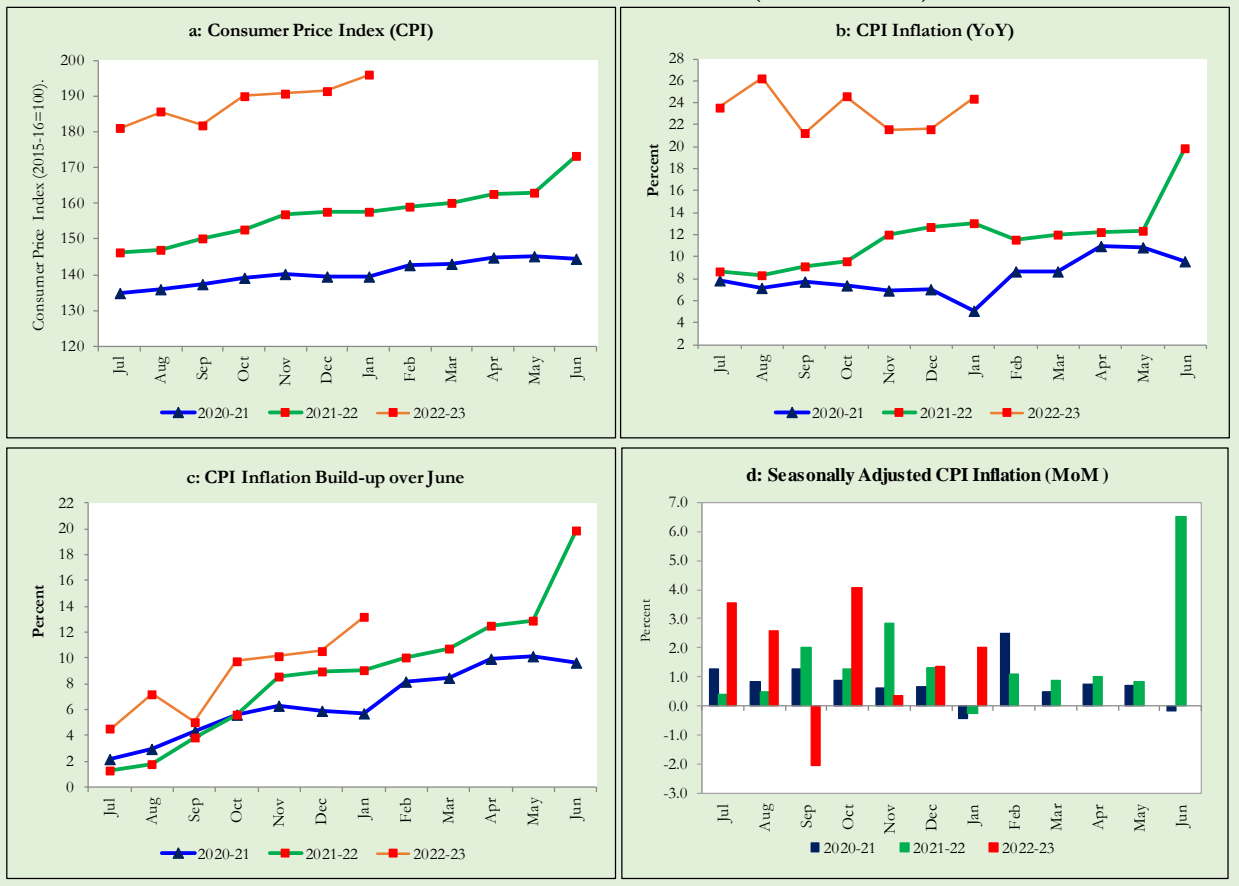


## 6. Trends in Consumer Price Indices and Inflation

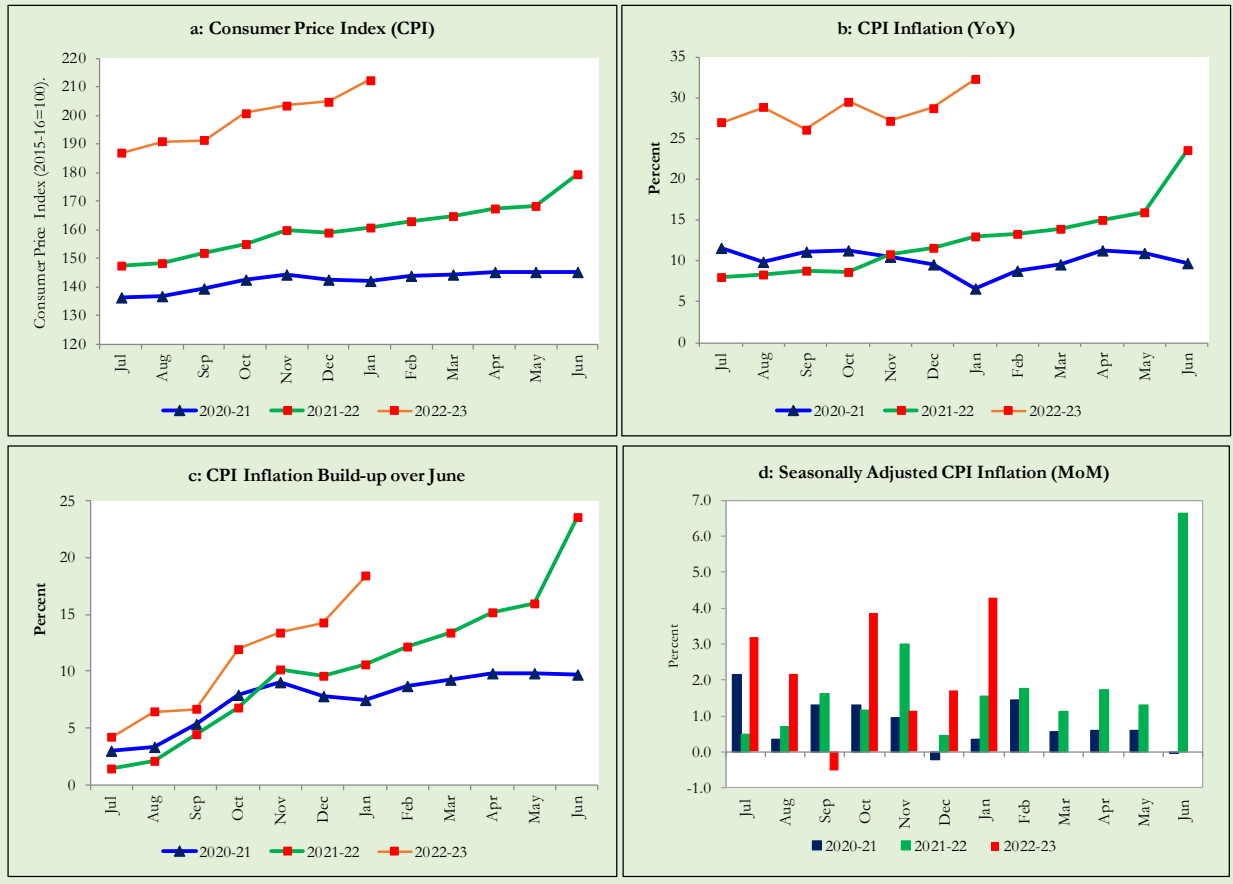
Monthly Consumer Price Indices, CPI inflation (YoY) and inflation build up over June along with seasonally adjusted (MoM) growth rates in CPI (National, Urban and Rural) is summarized in the following graphs (Figure 6.1 to 6.3).



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 of food group in the overall Urban CPI Inflation increased to 60.0 percent during January 2023 from 57.3 percent in previous month. It was 38.2 percent during corresponding month of last year. The weighted contribution of non-food group decreased to 40.0 percent in January 2023 from 42.7 percent in previous month. Weighted Contribution of non-food was 61.8 percent during corresponding month of last year. Table 7.1 provides the historical perspective of weighted contribution of food and non-food group and their respective sub-indices (Perishable food, Non-Perishable food, Energy, Core Inflation (NFNE), NFNE excluding HRI and HRI) in the overall inflation for urban basket.

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
Jan-22	100.0	38.2	2.0	36.2	61.8	28.4	33.4	24.5	8.9
Feb-22	100.0	46.1	10.9	35.2	54.0	18.7	35.3	25.5	9.8
Mar-22	100.0	45.6	8.9	36.7	54.4	15.3	39.1	29.7	9.4
Apr-22	100.0	48.5	9.6	38.9	51.5	12.7	38.7	30.4	8.4
May-22	100.0	48.2	7.1	41.1	51.7	10.9	40.9	32.6	8.3
Jun-22	100.0	45.7	6.7	39.0	54.3	23.9	30.3	25.2	5.2
Jul-22	100.0	44.0	6.0	38.0	56.0	29.5	26.5	22.1	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

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

For rural basket, the weighted contribution of food group in the overall Rural CPI Inflation increased to 65.5 percent during January 2023 from 61.9 percent in previous month. It was 43.2 percent during corresponding month of last year. The weighted contribution of non-food group decreased to 34.5 percent in January 2023 from 38.1 percent in previous month. Weighted contribution of non-food group was 56.8 percent during corresponding month of last year. Table 7.2 provides the historical perspective of weighted contribution of food (Perishable food, Non-Perishable food) and non-food group (Energy, Core Inflation (NFNE), NFNE excluding HRI and HRI) in the overall inflation for rural basket.

Table 7.2 Weighted Contribution (in percent) to 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
Jan-22	100.0	43.2	2.7	40.5	56.8	27.7	29.1	25.3	3.8
Feb-22	100.0	51.3	12.4	38.9	48.7	19.2	29.5	25.8	3.6
Mar-22	100.0	52.6	11.2	41.5	47.4	16.7	30.7	27.2	3.5
Apr-22	100.0	55.5	12.7	42.8	44.5	14.6	29.9	26.8	3.1
May-22	100.0	56.7	10.6	46.1	43.3	13.2	30.1	27.1	3.0
Jun-22	100.0	54.2	8.7	45.4	45.8	21.7	24.1	22.1	2.0
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

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

## 8. Inflation Diffusion Index

Inflation Diffusion Index (IDI) is the difference (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(a & b) for the last thirteen months.

<b>Table 8.1(a) Inflation Diffusion Index for Urban CPI Basket - based on MoM change</b>													
<b>Groups</b>	<b>Jan-22</b>	<b>Feb-22</b>	<b>Mar-22</b>	<b>Apr-22</b>	<b>May-22</b>	<b>Jun-22</b>	<b>Jul-22</b>	<b>Aug-22</b>	<b>Sep-22</b>	<b>Oct-22</b>	<b>Nov-22</b>	<b>Dec-22</b>	<b>Jan-23</b>
General	57.6	60.1	60.1	57.3	61.2	75.3	71.1	70.8	62.4	66.3	54.5	56.7	68.8
Food & Non-Alcoholic Beverages	40.0	46.7	34.4	44.4	37.8	57.8	66.7	54.4	56.7	43.3	18.9	26.7	55.6
Alcoholic Beverages & Tobacco	66.7	33.3	33.3	66.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	33.3
Clothing & Footwear	77.5	77.5	70.0	67.5	72.5	82.5	62.5	70.0	62.5	72.5	75.0	77.5	77.5
Housing, Water, Elect, Gas & other Fuels	13.8	3.4	10.3	17.2	20.7	72.4	75.9	58.6	3.4	51.7	24.1	10.3	58.6
Furnishing & Household Equip. Maintenance etc.	88.1	90.5	90.5	90.5	97.6	100.0	97.6	95.2	97.6	100.0	100.0	95.2	100.0
Health	71.0	87.1	77.4	74.2	61.3	90.3	61.3	77.4	87.1	80.6	83.9	71.0	80.6
Transport	62.5	62.5	59.4	40.6	53.1	93.8	81.3	50.0	37.5	46.9	34.4	25.0	34.4
Communication	40.0	20.0	20.0	20.0	20.0	40.0	40.0	20.0	40.0	40.0	20.0	40.0	20.0
Recreation & Culture	36.0	36.0	68.0	44.0	76.0	44.0	52.0	80.0	72.0	80.0	24.0	72.0	84.0
Education	31.3	37.5	75.0	43.8	50.0	25.0	31.3	75.0	12.5	37.5	50.0	56.3	31.3
Restaurant & Hotels	78.6	92.9	78.6	78.6	92.9	92.9	85.7	100.0	92.9	100.0	100.0	100.0	85.7
Miscellaneous	89.7	86.2	100.0	89.7	96.6	100.0	86.2	96.6	93.1	89.7	100.0	96.6	100.0
NFNE	67.2	69.4	76.6	67.2	72.8	81.3	71.5	77.4	67.2	76.6	71.5	72.3	76.6

<b>Groups</b>	<b>Jan-22</b>	<b>Feb-22</b>	<b>Mar-22</b>	<b>Apr-22</b>	<b>May-22</b>	<b>Jun-22</b>	<b>Jul-22</b>	<b>Aug-22</b>	<b>Sep-22</b>	<b>Oct-22</b>	<b>Nov-22</b>	<b>Dec-22</b>	<b>Jan-23</b>
General	57.4	59.4	52.0	54.9	59.0	74.2	76.6	72.5	67.2	68.0	54.5	48.8	67.6
Food & Non-Alcoholic Beverages	44.3	45.6	41.8	32.9	40.5	53.2	64.6	53.2	62.0	55.7	13.9	12.7	57.0
Alcoholic Beverages & Tobacco	60.0	100.0	0.0	80.0	100.0	100.0	100.0	100.0	100.0	60.0	100.0	80.0	80.0
Clothing & Footwear	70.4	92.6	74.1	92.6	88.9	81.5	81.5	88.9	66.7	81.5	96.3	85.2	81.5
Housing, Water, Elect, Gas & other Fuels	17.4	4.3	0.0	26.1	26.1	82.6	95.7	78.3	30.4	56.5	34.8	0.0	82.6
Furnishing & Household Equip. Maintenance etc.	92.3	92.3	84.6	80.8	84.6	92.3	92.3	100.0	88.5	100.0	100.0	96.2	96.2
Health	64.3	78.6	42.9	71.4	42.9	100.0	64.3	71.4	92.9	64.3	100.0	78.6	35.7
Transport	62.5	62.5	37.5	50.0	68.8	87.5	75.0	43.8	68.8	31.3	18.8	25.0	12.5
Communication	20.0	20.0	20.0	20.0	20.0	20.0	40.0	20.0	20.0	20.0	20.0	20.0	20.0
Recreation & Culture	38.5	53.8	69.2	30.8	76.9	53.8	53.8	84.6	69.2	84.6	46.2	84.6	76.9
Education	60.0	80.0	80.0	100.0	80.0	80.0	100.0	80.0	0.0	100.0	80.0	80.0	80.0
Restaurant & Hotels	78.6	57.1	78.6	57.1	71.4	92.9	85.7	92.9	85.7	85.7	85.7	71.4	85.7
Miscellaneous	94.1	76.5	88.2	94.1	76.5	94.1	94.1	94.1	94.1	88.2	100.0	94.1	94.1
NFNE	67.6	71.3	66.9	74.3	69.9	82.4	78.7	80.9	72.1	76.5	80.9	74.3	72.8

## 9. Domestic Commodity Prices (Growth)

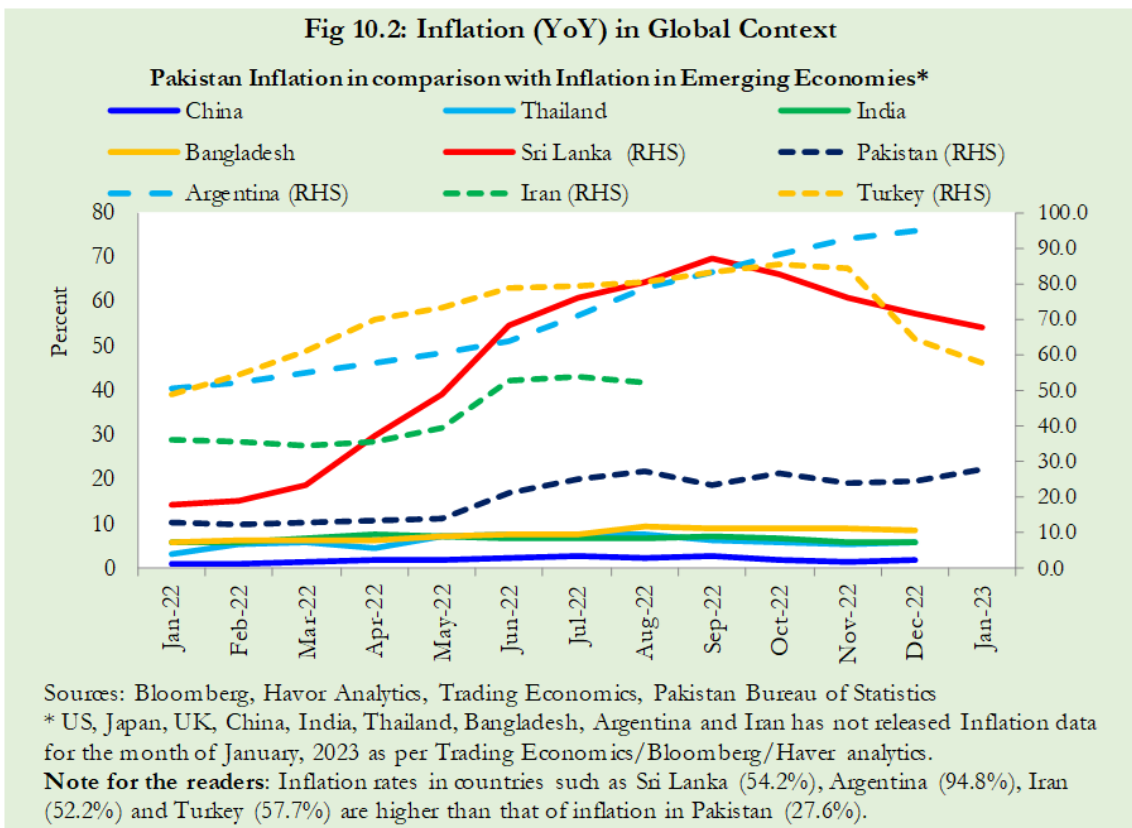
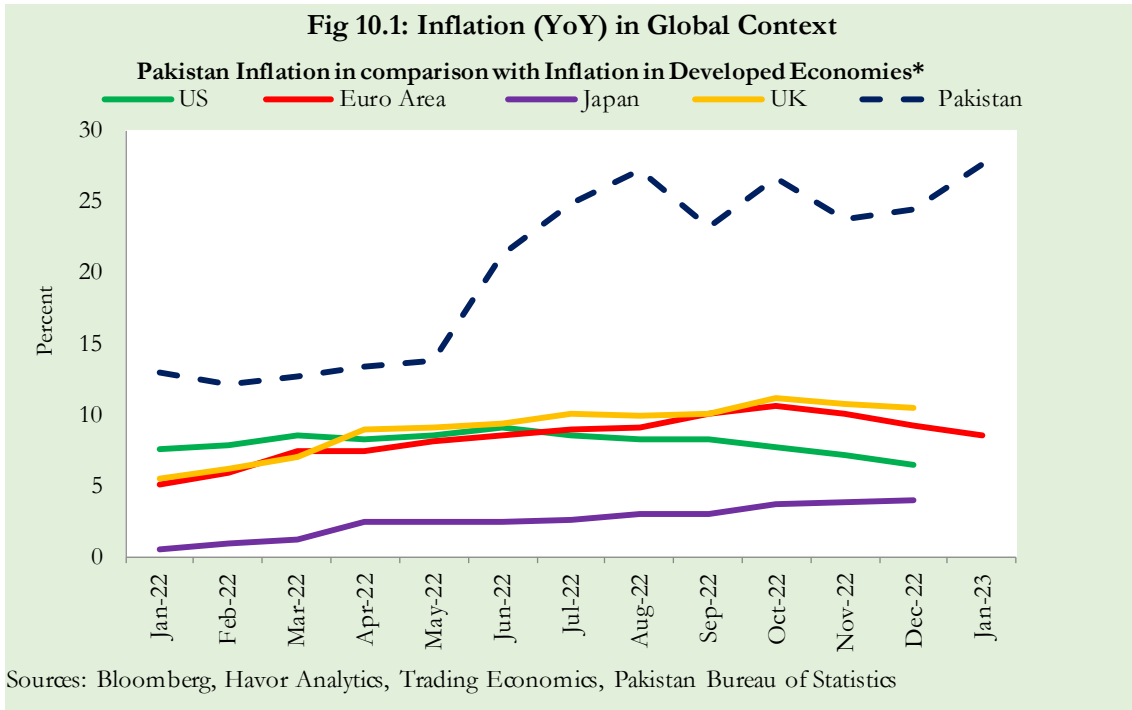
Growth of domestic food commodities (YoY and MoM in percent) for selected essential food items covering both urban and rural CPI baskets is given in table 9.1.

S. No	Item	Unit	Urban CPI		Rural CPI	
			YoY	MoM	YoY	MoM
1	Wheat	10 Kg	78.4	16.5	100.2	27.9
2	Wheat Flour Bag	20 Kg	51.9	10.9	53.1	12.2
3	Rice Basmati Broken (Superior/Average Quality)*	1 Kg	82.1	10.1	63.1	12.1
4	Beef With Bone (Average Quality)	1 Kg	17.3	0.1	20.1	1.0
5	Mutton (Average Quality)	1 Kg	23.8	0.1	20.1	1.0
6	Chicken Farm Broiler (Live)	1 Kg	83.3	24.6	88.8	33.0
7	Milk Fresh (Un-Boiled)	1 Litre	28.3	1.8	30.6	0.9
8	Eggs Farm	Dozen	63.0	4.4	56.2	1.7
9	Vegetable Ghee Dalda/Habib Or Other Superior Quality 1 Kg Pouch	Each	27.8	-1.2	30.5	-0.3
10	Pulse Masoor (Washed)	1 Kg	22.1	4.0	29.5	1.4
11	Pulse Moong (Washed)	1 Kg	46.0	4.1	49.9	7.4
12	Pulse Mash (Washed)	1 Kg	37.1	2.5	41.2	1.8
13	Pulse Gram	1 Kg	44.5	3.0	51.3	2.5
14	Potatoes	1 Kg	5.6	-27.1	-5.6	-28.6
15	Onions	1 Kg	468.6	9.7	530.3	8.8
16	Tomatoes	1 Kg	22.4	-39.0	45.2	-37.8
17	Sugar Refined	1 Kg	0.8	-0.9	-0.2	-2.0
18	Garlic (Lehsun)	1 Kg	32.5	6.9	22.8	6.2
19	Ginger (Adrak)	500 Gm	16.3	7.0	6.6	3.4
20	Tea Lipton Yellow Label 190 Gm Packet	Each	65.0	0.8	60.3	1.4

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

### 10. Inflation in Global Context

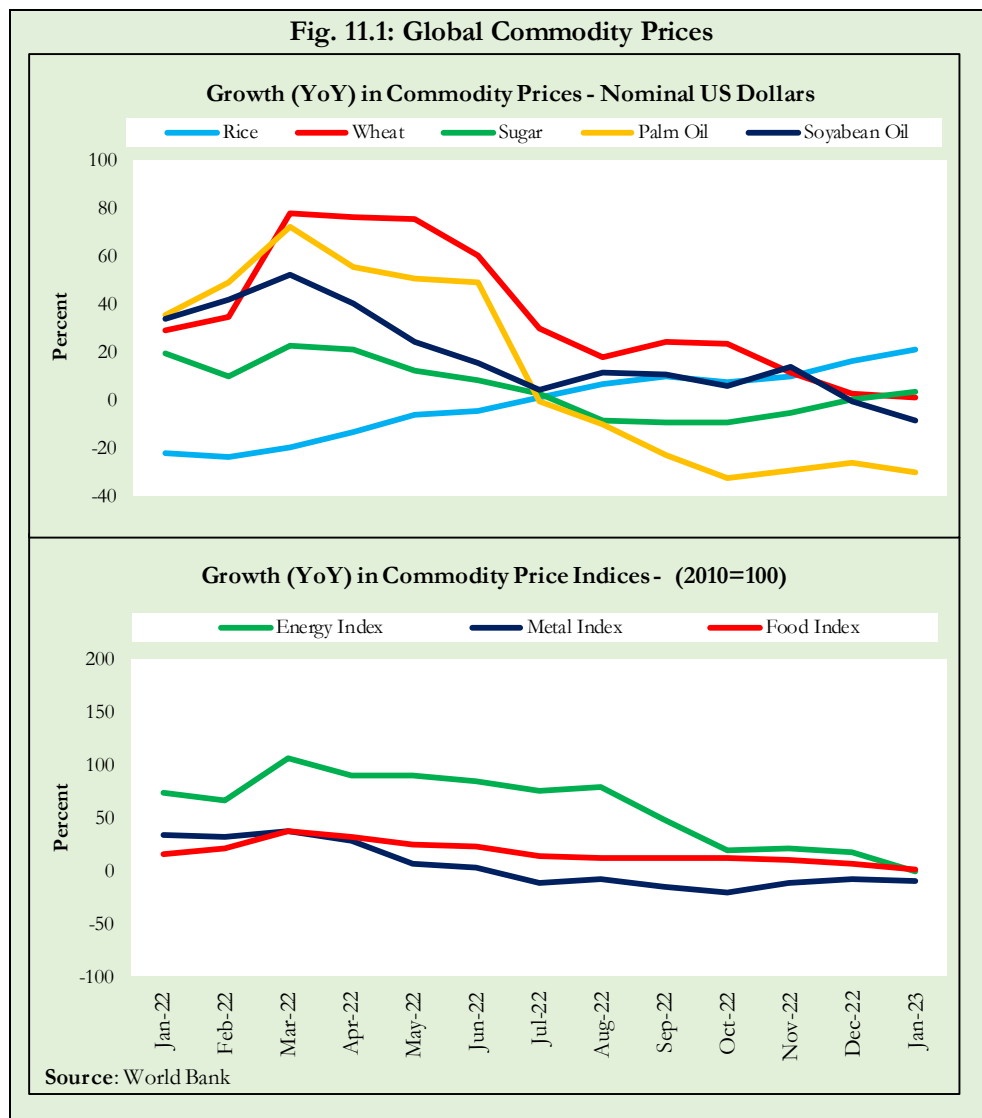
In global context, Pakistan’s inflation in comparison with inflation in selected developed and emerging economies is given in figure 10.1 and 10.2.



### 11. Global Commodity Prices (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	Jan-22		Dec-22		Jan-23	
	YoY	MoM	YoY	MoM	YoY	MoM
Food	16.3	5.1	6.3	-1.5	1.6	0.4
Metals	33.6	6.4	-8.3	4.8	-9.1	5.4
Energy	73.6	8.0	16.5	-6.1	-1.7	-8.9
Agricultural	16.0	4.2	1.1	-0.8	-2.5	0.5
Cotton	51.4	10.0	-16.0	-0.1	-24.1	-0.6



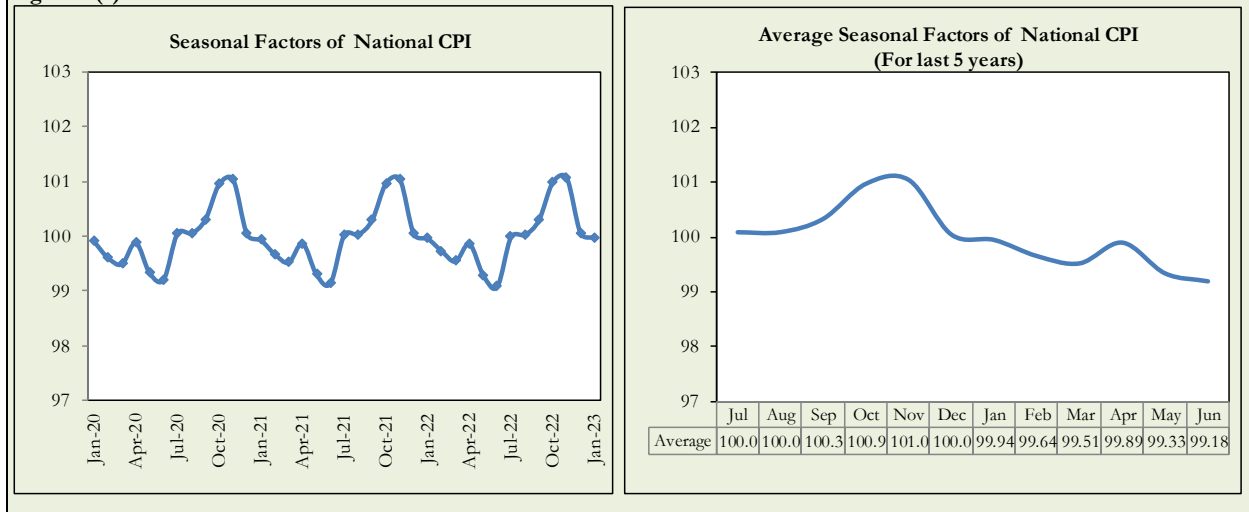
## 12. Seasonal Adjustment in CPI

Seasonal adjustment is the process of estimating and removing the 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. Seasonally adjusted changes are usually preferred for analyzing general price trends in the economy because these eliminate the effect of changes that normally occur at the same time and in about the same magnitude every year. 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.

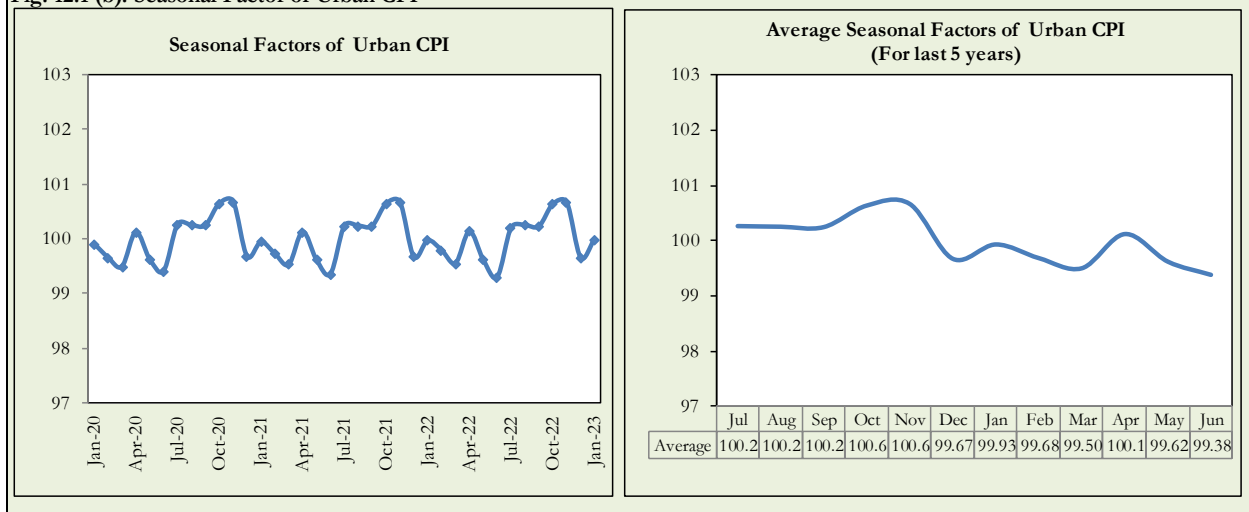
The changes in consumer prices are normally reported in terms of year-on-year and month-on-month basis. Seasonal adjustment is particularly useful for analyzing month-on-month changes. The monthly data series of Consumer Price Indices (National CPI, Urban CPI and Rural CPI) from December 2008 to January 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 and downward seasonality in the remaining months of the year. Upward and downward seasonality is above and below the trend line respectively.

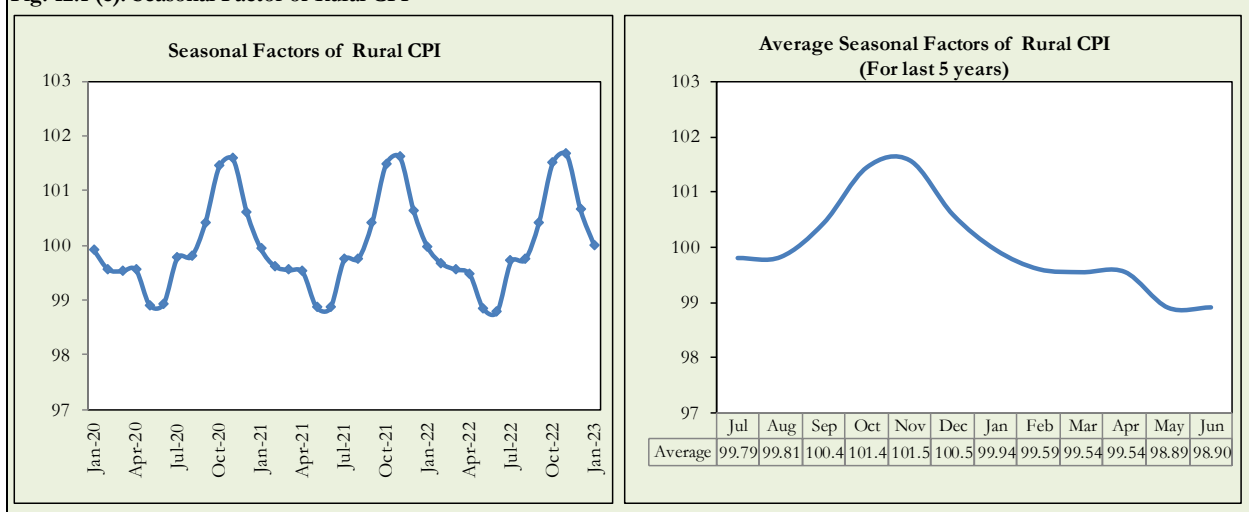
**Fig. 12.1 (a): Seasonal Factor of National CPI**



**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 due to the removal of the seasonal variations. The trend follows the long-term movement in original series and is smoother than the original series because some irregular fluctuations have been removed.

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

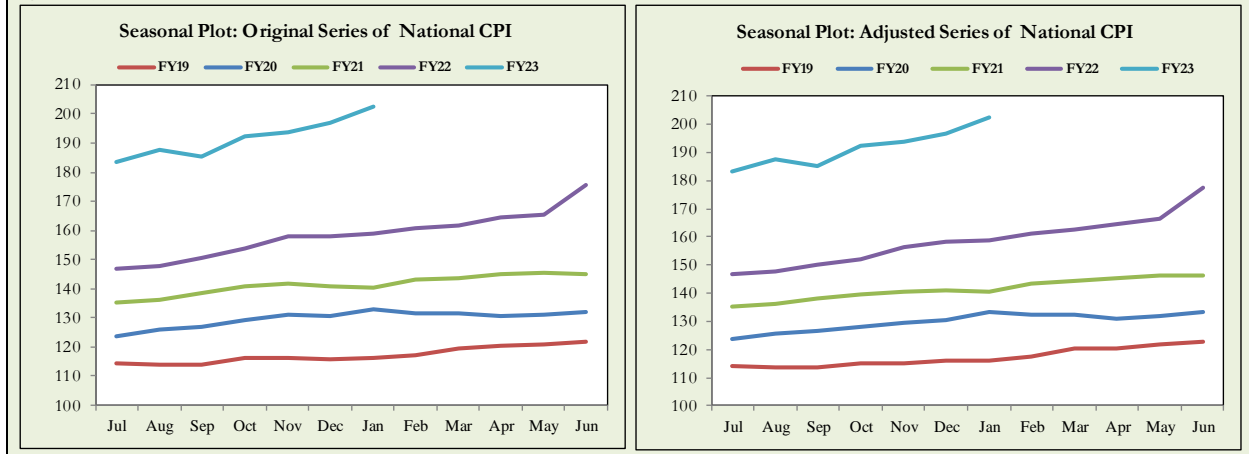


Fig. 12.2 (b): Seasonal Plot of Urban CPI

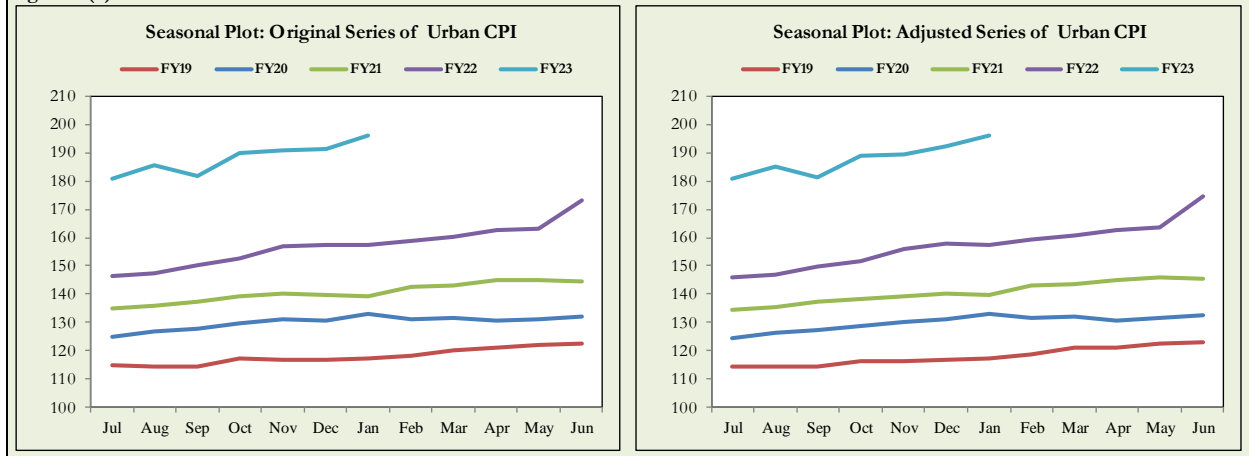
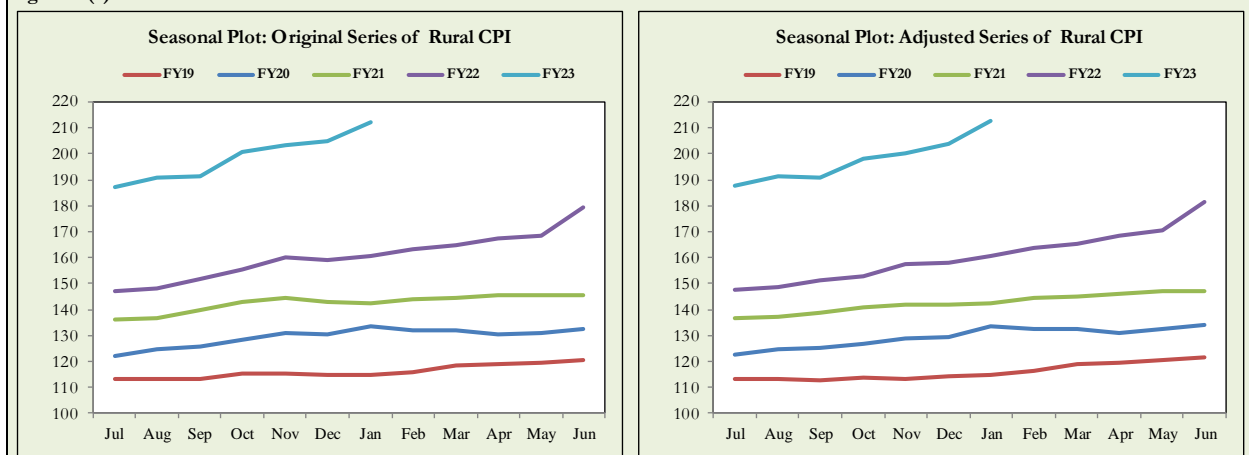


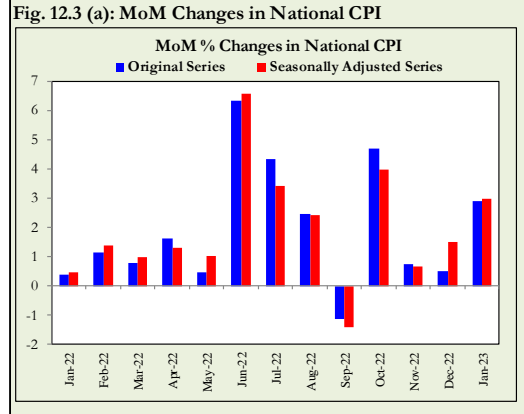
Fig. 12.2 (c): Seasonal Plot of Rural CPI



Seasonally adjusted Index of National CPI for January 2023 stood at 202.55 against 202.53 in original series showing an increase of 0.02 because of seasonal adjustment.

Seasonally adjusted Index of Urban CPI for January 2023 stood at 196.00 against 195.97 in original series showing an increase of 0.03 on account of seasonal adjustment.

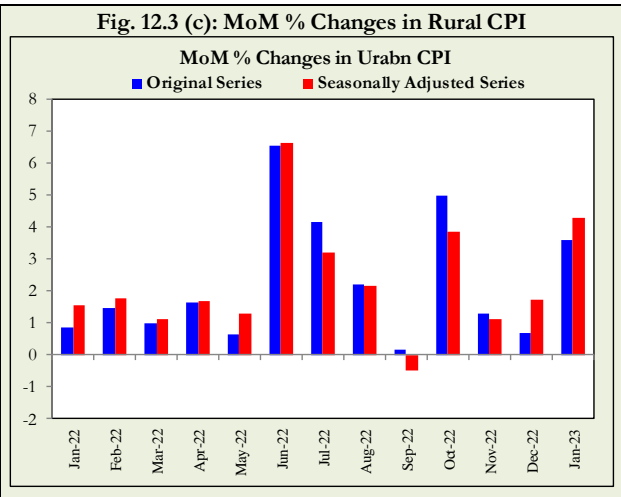
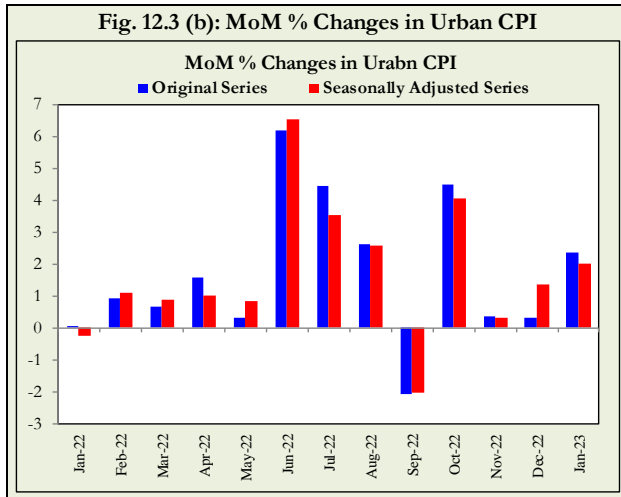
Seasonally adjusted Index of Rural CPI for January 2023 stood at 212.45 against 212.43 in original series showing an increase of 0.02 on account of seasonal adjustment.



Month-on-month change of seasonally adjusted National CPI series showed an inflation of 2.96% during January 2023 over previous month against an inflation of 2.88% in original series.

Month-on-month change of seasonally adjusted Urban CPI series showed an inflation of 2.01% during January 2023 over previous month against an inflation of 2.36% in original series.

Month-on-month change of seasonally adjusted Rural CPI series showed an inflation of 4.30% during January 2023 over previous month against an inflation of 3.62% in original series.



## List of Illustrations

## Tables

Table A0: Inflation – Summary

Period	CPI							WPI			SPI**	Core Inflation			
	General			Food		Non-Food		General	Food	Non-Food		NFNE*		Trimmed	
	National	Urban	Rural	Urban	Rural	Urban	Rural					Urban	Rural	Urban	Rural
<b>Annual Average</b>															
FY20	10.7	10.2	11.6	13.6	15.9	8.3	8.1	10.2	13.3	8.6	14.4	7.5	8.7	8.3	10.1
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
<b>Year-on-Year</b>															
Jan-22	13.0	13.0	12.9	13.3	11.8	12.8	13.9	24.0	12.5	30.7	19.5	8.2	9.0	10.6	10.9
Feb-22	12.2	11.5	13.3	14.3	14.6	9.9	12.2	23.6	12.5	30.1	18.1	7.8	9.4	9.8	11.3
Mar-22	12.7	11.9	13.9	14.5	15.5	10.4	12.5	23.8	14.3	29.1	15.8	8.9	10.3	10.5	11.7
Apr-22	13.4	12.2	15.1	15.6	17.7	10.2	12.8	28.1	15.3	35.7	16.5	9.1	10.9	10.5	12.8
May-22	13.8	12.4	15.9	15.5	19.0	10.4	13.1	29.6	13.9	38.9	16.1	9.7	11.5	10.7	14.1
Jun-22	21.3	19.8	23.6	24.0	27.0	17.3	20.4	38.9	23.6	47.8	26.5	11.5	13.6	16.7	19.1
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
<b>12- Month Moving Average</b>															
Jan-22	10.1	10.2	10.0	11.7	9.9	9.3	10.1	19.5	12.5	23.8	15.3	7.0	7.5	9.5	9.4
Feb-22	10.4	10.4	10.4	12.0	10.3	9.5	10.4	20.7	12.4	25.8	16.0	7.1	7.6	9.6	9.6
Mar-22	10.7	10.7	10.7	12.3	10.7	9.8	10.7	21.5	12.4	27.0	16.1	7.3	7.9	9.6	9.8
Apr-22	10.9	10.8	11.1	12.3	11.1	9.9	11.1	22.5	12.4	28.6	16.0	7.5	8.2	9.7	9.9
May-22	11.2	11.0	11.5	12.3	11.6	10.1	11.4	23.3	12.2	30.1	16.0	7.7	8.5	9.7	10.3
Jun-22	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
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
<b>Period Average (Since July)</b>															
Jan-22	10.3	10.5	9.9	11.0	8.9	10.2	10.9	21.8	11.0	28.5	15.7	7.2	7.5	9.1	8.8
Feb-22	10.5	10.6	10.4	11.4	9.6	10.2	11.0	22.1	11.2	28.7	16.0	7.3	7.7	9.2	9.2
Mar-22	10.8	10.8	10.8	11.7	10.3	10.2	11.2	22.3	11.6	28.8	15.9	7.5	8.0	9.4	9.5
Apr-22	11.0	10.9	11.2	12.1	11.0	10.2	11.4	22.9	11.9	29.5	16.0	7.6	8.3	9.7	9.9
May-22	11.3	11.1	11.6	12.5	11.7	10.2	11.5	23.5	12.1	30.4	16.0	7.8	8.6	9.8	10.4
Jun-22	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
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	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
<b>Month-on-Month</b>															
Jan-22	0.4	0.1	0.9	-0.8	0.4	0.6	1.4	0.6	0.5	0.7	-0.2	0.8	1.2	0.5	1.1
Feb-22	1.2	0.9	1.5	2.2	2.6	0.2	0.4	1.9	1.5	2.2	1.3	0.8	0.9	0.8	1.2
Mar-22	0.8	0.7	1.0	1.8	2.3	-0.1	-0.2	3.9	3.0	4.3	0.6	1.2	1.1	0.8	0.8
Apr-22	1.6	1.6	1.6	3.7	2.8	0.3	0.5	3.2	2.8	3.4	1.1	1.1	1.2	0.9	0.9
May-22	0.4	0.3	0.6	1.0	1.3	-0.1	0.0	1.4	0.1	2.1	0.6	0.7	0.9	0.8	1.4
Jun-22	6.3	6.2	6.6	5.3	6.0	6.8	7.1	8.2	7.6	8.5	8.1	2.0	2.3	3.5	4.3
Jul-22	4.3	4.5	4.2	4.3	3.7	4.6	4.6	2.0	1.7	2.1	7.7	1.2	1.6	2.7	2.7
Aug-22	2.4	2.6	2.2	1.6	1.2	3.3	3.1	3.1	2.2	3.6	5.6	1.8	1.8	1.7	1.8
Sep-22	-1.2	-2.1	0.2	5.2	5.7	-6.6	-4.9	1.4	5.0	-0.2	-0.6	0.9	1.4	1.6	2.5
Oct-22	4.7	4.5	5.0	4.5	6.1	4.5	3.9	-0.5	3.4	-2.4	-2.4	1.3	1.5	1.9	2.7
Nov-22	0.8	0.4	1.3	0.0	0.5	0.6	2.1	-0.02	-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

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

Source: Pakistan Bureau of Statistics

**Table A1: National CPI Inflation by Groups (YoY and MoM in percent)**

Groups	Weights	MoM change			YoY change		
		Jan-22	Dec-22	Jan-23	Jan-22	Dec-22	Jan-23
Food & Non-Alcoholic	34.6	-0.5	-0.1	5.0	12.8	35.5	42.9
Alcoholic Beverages & Tobacco	1.0	0.1	0.5	0.2	2.0	36.2	36.3
Clothing & Footwear	8.6	0.8	0.7	0.5	11.2	17.1	16.8
Housing, Water, Elec, Gas & other Fuels	23.6	1.0	0.0	1.8	15.5	7.0	7.8
Furnishing & Household Equip. Maintenance etc	4.1	1.1	2.4	1.6	13.0	29.2	29.9
Health	2.8	0.7	1.9	1.8	9.2	17.5	18.7
Transport	5.9	1.0	-0.8	-0.5	23.1	41.2	39.1
Communication	2.2	0.1	0.1	0.0	2.6	1.7	1.6
Recreation & Culture	1.6	0.4	10.9	4.5	7.8	38.5	44.1
Education	3.8	0.4	0.3	0.1	3.2	10.9	10.6
Restaurants & Hotels	6.9	1.0	1.3	3.1	13.0	27.4	30.1
Miscellaneous	4.9	0.8	3.0	3.2	10.3	25.8	28.7
<b>Overall National CPI</b>	<b>100.0</b>	<b>0.4</b>	<b>0.5</b>	<b>2.9</b>	<b>13.0</b>	<b>24.5</b>	<b>27.6</b>

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

Groups	Weights	MoM change			YoY change		
		Jan-22	Dec-22	Jan-23	Jan-22	Dec-22	Jan-23
<b>I. Food Group</b>	<b>36.8</b>	<b>-0.8</b>	<b>0.0</b>	<b>3.9</b>	<b>13.3</b>	<b>32.7</b>	<b>39.0</b>
Food & Non-Alcoholic	30.4	-1.1	-0.3	4.1	13.6	32.6	39.5
Beverages							
Alcoholic Beverages & Tobacco	0.9	0.0	0.2	0.1	2.0	37.3	37.3
Restaurant & Hotels (Food	5.5	0.8	1.6	3.9	13.4	32.6	36.7
<b>II. Non-Food Group</b>	<b>63.2</b>	<b>0.6</b>	<b>0.6</b>	<b>1.2</b>	<b>12.8</b>	<b>14.8</b>	<b>15.6</b>
Clothing & Footwear	8.0	0.7	0.7	0.6	12.4	17.0	16.8
Housing, Water, Elec, Gas & other Fuels	27.0	0.6	-0.5	1.4	14.2	4.1	5.0
Furnishing & Household Equip. Maintenance etc	4.1	0.9	2.3	1.1	11.9	29.7	30.0
Health	2.3	0.5	1.1	3.4	10.0	13.5	16.7
Transport	6.1	0.4	-0.7	-0.4	23.4	39.2	38.0
Communication	2.4	0.1	0.1	0.0	3.4	1.8	1.8
Recreation & Culture	1.7	0.3	13.4	4.3	8.1	38.0	43.6
Education	4.9	0.5	0.2	0.1	3.0	10.8	10.4
Restaurants & Hotels (Non-food Component)	1.9	0.2	1.6	2.6	12.4	16.4	19.2
Miscellaneous	4.8	0.7	2.4	3.1	10.1	25.9	28.8
<b>Overall Urban CPI</b>	<b>100.0</b>	<b>0.1</b>	<b>0.3</b>	<b>2.4</b>	<b>13.0</b>	<b>21.6</b>	<b>24.4</b>

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

Groups	Weights	MoM Change			YoY Change		
		Jan-22	Dec-22	Jan-23	Jan-22	Dec-22	Jan-23
<b>I. Food Group</b>	<b>45.9</b>	<b>0.4</b>	<b>0.1</b>	<b>5.7</b>	<b>11.8</b>	<b>37.9</b>	<b>45.2</b>
Food and Non-Alcoholic Beverages	40.9	0.2	0.0	6.0	12.0	38.7	46.8
Alcoholic Beverages, Tobacco	1.3	0.3	0.9	0.4	2.0	35.0	35.2
Restaurants and Hotels (Food Component)	3.8	1.7	0.9	3.1	13.0	29.6	31.4
<b>II. Non-Food Group</b>	<b>54.1</b>	<b>1.4</b>	<b>1.4</b>	<b>1.5</b>	<b>13.9</b>	<b>20.7</b>	<b>20.9</b>
Clothing and Footwear	9.5	0.8	0.8	0.4	9.7	17.2	16.7
Housing, Water, Elec., Gas and Other Fuels	18.5	1.9	1.1	2.6	18.5	13.2	14.0
Furnishing and Household Equip. Maintenance	4.1	1.3	2.6	2.3	14.8	28.6	29.8
Health	3.5	0.9	2.8	0.4	8.3	21.4	20.7
Transport	5.6	2.0	-0.9	-0.5	22.5	44.6	41.0
Communication	2.0	0.2	0.0	0.1	1.1	1.4	1.2
Recreation and Culture	1.4	0.7	6.8	4.9	7.4	39.4	45.1
Education	2.1	0.2	0.4	0.2	3.7	11.3	11.2
Restaurants and Hotels (Non-Food Component)	2.4	1.4	0.2	0.6	11.9	16.6	15.7
Miscellaneous	5.0	1.0	3.9	3.3	10.8	25.6	28.5
<b>Overall Rural CPI</b>	<b>100.0</b>	<b>0.9</b>	<b>0.7</b>	<b>3.6</b>	<b>12.9</b>	<b>28.8</b>	<b>32.3</b>

Table A4: 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
<b>Year-on-Year</b>															
Jan-22	13.0	12.8	13.8	6.4	2.0	11.2	15.5	13.0	9.2	23.1	2.6	7.8	3.2	13.0	10.3
Feb-22	12.2	14.7	12.1	34.9	2.1	9.7	9.0	13.4	10.1	25.0	2.5	8.2	3.4	14.4	10.1
Mar-22	12.7	15.3	13.3	30.1	1.8	9.7	8.3	13.8	10.0	26.3	2.6	9.3	8.3	14.6	12.4
Apr-22	13.4	17.0	15.0	29.6	5.1	10.8	7.1	14.7	10.4	28.3	1.6	9.7	8.4	14.6	12.8
May-22	13.8	17.3	15.9	26.4	10.1	11.3	5.8	16.1	10.6	31.8	1.8	12.3	9.5	16.0	13.3
Jun-22	21.3	25.9	24.4	36.3	17.6	13.7	13.5	18.8	11.3	62.2	2.0	14.4	9.5	21.9	15.8
Jul-22	24.9	28.8	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	44.1	10.6	30.1	28.7
<b>12- Month Moving Average</b>															
Jan-22	10.1	11.0	14.2	-6.2	3.4	10.3	11.1	10.0	8.8	12.6	2.0	6.2	2.1	9.2	9.7
Feb-22	10.4	11.4	14.0	-2.7	3.1	10.2	10.9	10.4	8.9	14.9	2.2	6.5	2.3	9.8	9.5
Mar-22	10.7	11.8	13.7	0.7	2.8	10.1	10.9	10.8	9.0	17.0	2.4	6.9	2.9	10.3	9.7
Apr-22	10.9	11.9	13.5	2.9	2.8	10.0	10.6	11.3	9.1	18.8	2.4	7.3	3.5	10.8	9.9
May-22	11.2	12.1	13.3	5.2	3.3	10.1	10.4	11.8	9.2	20.2	2.4	8.0	4.1	11.5	10.2
Jun-22	12.2	13.4	14.3	8.2	4.3	10.4	10.8	12.6	9.4	24.1	2.4	8.7	4.8	12.6	10.6
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
<b>Period Average (Since July)</b>															
Jan-22	10.3	10.1	12.9	-5.1	2.1	9.9	12.3	10.5	8.6	16.3	2.7	7.1	2.6	9.8	8.9
Feb-22	10.5	10.6	12.8	-1.4	2.1	9.9	11.8	10.9	8.8	17.4	2.7	7.2	2.7	10.4	9.1
Mar-22	10.8	11.2	12.9	1.4	2.1	9.9	11.4	11.2	8.9	18.4	2.6	7.5	3.3	10.9	9.4
Apr-22	11.0	11.8	13.1	4.2	2.4	10.0	11.0	11.6	9.1	19.4	2.5	7.7	3.8	11.3	9.8
May-22	11.3	12.3	13.4	6.0	3.1	10.1	10.5	12.0	9.2	20.5	2.5	8.1	4.4	11.7	10.1
Jun-22	12.2	13.4	14.3	8.2	4.3	10.4	10.8	12.6	9.4	24.1	2.4	8.7	4.8	12.6	10.6
Jul-22	24.9	28.8	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	29.2	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
<b>Month-on-Month</b>															
Jan-22	0.4	-0.5	0.3	-5.2	0.1	0.8	1.0	1.1	0.7	1.0	0.1	0.4	0.4	1.0	0.8
Feb-22	1.2	2.5	0.9	14.0	0.3	1.0	-1.6	1.8	2.1	3.6	0.0	0.5	0.3	1.7	1.1
Mar-22	0.8	2.3	2.7	-0.3	0.0	1.0	-2.2	1.4	0.6	0.3	0.0	1.3	4.7	0.9	1.6
Apr-22	1.6	3.7	1.2	20.4	3.1	2.1	-0.7	1.6	0.9	0.4	0.0	0.4	0.6	0.2	0.8
May-22	0.4	0.9	3.0	-10.8	4.9	0.7	-2.3	1.8	0.5	2.7	0.1	2.8	1.0	1.8	1.2
Jun-22	6.3	5.5	5.5	5.4	7.0	2.3	7.7	2.9	1.2	24.4	0.2	3.2	0.3	5.8	3.3
Jul-22	4.3	4.1	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	2.4	1.3	1.0	3.3	2.7	2.8	5.5	2.3	1.2	-0.3	0.1	6.3	1.1	2.3	2.7
Sep-22	-1.2	5.8	4.1	16.1	5.9	0.3	-17.7	3.4	2.2	2.2	0.1	2.0	0.0	2.2	3.8
Oct-22	4.7	5.6	2.9	20.3	1.8	1.0	10.9	2.9	2.8	-1.8	0.4	1.9	1.0	2.5	0.9
Nov-22	0.8	0.1	1.2	-5.0	1.1	2.2	0.6	2.8	1.9	-0.1	0.0	2.0	0.4	1.9	2.3
Dec-22	0.5	-0.1	2.4	-12.6	0.5	0.7	0.0	2.4	1.9	-0.8	0.1	10.9	0.3	1.3	3.0
Jan-23	2.9	5.0	6.2	-1.8	0.2	0.5	1.8	1.6	1.8	-0.5	0.0	4.5	0.1	3.1	3.2
<b>3-Years Average (in current month during FY21-FY23)</b>															
YoY	15.4	20.8	22.2	15.6	14.7	12.5	8.9	16.9	12.1	19.9	1.6	18.9	5.0	17.3	16.9
MoM	1.0	0.6	2.4	-9.0	0.1	0.7	1.6	1.0	1.2	0.8	0.1	1.8	0.2	1.6	1.7

Source: Pakistan Bureau of Statistics

Table A5: Urban CPI Inflation by Groups

Period	General	Food and Non-Alcoholic Beverages	Non-Perishable Food Items	Perishable Food Items	Alcoholic Beverages, Tobacco	Clothing and Footwear	Housing, Water, Elec., Gas and Other Fuels	Furnishing and Household Equipment	Health	Transport	Communication	Recreation and Culture	Education	Restaurants and Hotels	Misc. Goods and Services
<b>Year-on-Year</b>															
Jan-22	13.0	13.6	14.7	6.3	2.0	12.4	14.2	11.9	10.0	23.4	3.4	8.1	3.0	13.2	10.1
Feb-22	11.5	14.5	11.8	34.1	2.0	9.4	7.8	12.4	10.2	24.8	3.3	8.0	3.2	15.0	9.6
Mar-22	11.9	14.8	13.0	28.0	1.5	9.6	7.1	12.6	10.0	26.3	3.3	8.7	9.0	14.5	11.9
Apr-22	12.2	16.0	14.4	25.6	4.8	10.5	5.6	13.5	10.3	28.6	2.0	8.9	9.2	14.5	12.0
May-22	12.4	15.8	15.0	20.6	9.4	11.0	4.4	15.2	10.3	32.2	2.3	11.9	10.4	14.5	12.2
Jun-22	19.8	24.6	23.5	32.4	18.3	14.2	11.3	17.6	10.9	61.5	2.5	13.3	10.4	21.2	15.1
Jul-22	23.6	27.8	27.1	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
<b>12- Month Moving Average</b>															
Jan-22	10.2	12.0	15.2	-5.1	4.0	11.1	10.3	9.4	9.3	13.2	2.7	5.6	1.8	9.6	9.7
Feb-22	10.4	12.3	14.9	-1.7	3.7	10.9	10.1	9.8	9.5	15.5	2.9	6.0	2.0	10.2	9.6
Mar-22	10.7	12.6	14.6	1.4	3.2	10.7	10.0	10.2	9.6	17.5	3.2	6.4	2.7	10.8	9.7
Apr-22	10.8	12.5	14.2	3.2	3.1	10.5	9.6	10.6	9.6	19.3	3.2	6.9	3.3	11.3	9.9
May-22	11.0	12.5	13.9	4.8	3.4	10.5	9.3	11.1	9.7	20.8	3.2	7.6	4.1	11.7	10.0
Jun-22	11.8	13.7	14.8	7.5	4.5	10.8	9.6	11.9	9.7	24.5	3.2	8.3	4.9	12.7	10.4
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
<b>Period Average (Since July)</b>															
Jan-22	10.5	11.1	14.1	-4.6	2.5	10.7	11.3	10.1	9.3	17.0	3.6	6.9	2.3	10.3	9.0
Feb-22	10.6	11.5	13.8	-0.9	2.4	10.6	10.8	10.4	9.4	18.0	3.6	7.0	2.4	10.9	9.1
Mar-22	10.8	11.9	13.7	1.7	2.3	10.4	10.4	10.6	9.5	19.0	3.5	7.2	3.1	11.3	9.4
Apr-22	10.9	12.3	13.8	4.1	2.6	10.4	9.9	10.9	9.6	19.9	3.4	7.4	3.8	11.7	9.7
May-22	11.1	12.7	13.9	5.5	3.2	10.5	9.4	11.3	9.6	21.1	3.3	7.8	4.4	11.9	9.9
Jun-22	11.8	13.7	14.8	7.5	4.5	10.8	9.6	11.9	9.7	24.5	3.2	8.3	4.9	12.7	10.4
Jul-22	23.6	27.8	27.1	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	28.4	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
<b>Month-on-Month</b>															
Jan-22	0.1	-1.1	-0.4	-5.4	0.0	0.7	0.6	0.9	0.5	0.4	0.1	0.3	0.5	0.6	0.7
Feb-22	0.9	2.3	0.5	14.7	0.2	1.3	-1.6	2.0	1.6	3.4	0.0	0.2	0.1	2.0	1.2
Mar-22	0.7	2.1	2.6	-1.1	0.1	0.9	-2.2	1.1	0.9	0.5	0.0	0.9	5.7	0.7	1.8
Apr-22	1.6	4.3	1.7	20.8	3.3	2.0	-0.6	1.6	0.8	0.6	0.0	0.2	0.6	0.2	0.7
May-22	0.3	0.9	3.1	-10.8	4.6	0.5	-2.3	2.0	0.4	2.9	0.2	3.0	1.1	0.6	1.1
Jun-22	6.2	5.0	4.9	5.5	8.2	3.0	7.0	2.6	1.4	23.5	0.2	3.1	0.1	6.6	3.7
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	1.4	1.2	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
<b>3-Years Average (in current month during FY21-FY23)</b>															
YoY	14.1	19.9	21.2	15.6	15.2	12.6	7.4	16.1	11.4	19.5	1.9	18.3	4.8	18.1	16.4
MoM	0.8	0.1	1.6	-8.5	0.0	0.6	1.2	0.8	1.5	0.6	0.1	1.6	0.2	1.6	1.6

Source: Pakistan Bureau of Statistics

Table A6: Rural CPI Inflation by Groups

Period	General	Food and Non-Alcoholic Beverages	Non-Perishable Food Items	Perishable Food Items	Alcoholic Beverages, Tobacco	Clothing and Footwear	Housing, Water, Elec., Gas and Other Fuels	Furnishing and Household Equipment	Health	Transport	Communication	Recreation and Culture	Education	Restaurants and Hotels	Misc. Goods and Services
<b>Year-on-Year</b>															
Jan-22	12.9	12.0	12.8	6.6	2.0	9.7	18.5	14.8	8.3	22.5	1.1	7.4	3.7	12.6	10.8
Feb-22	13.3	15.0	12.4	35.8	2.3	10.0	11.6	15.0	10.0	25.4	1.1	8.5	4.4	13.3	10.7
Mar-22	13.9	15.9	13.7	32.8	2.3	9.8	11.1	15.6	10.0	26.2	1.1	10.5	5.6	14.6	13.1
Apr-22	15.1	18.2	15.8	34.4	5.5	11.3	10.3	16.4	10.4	27.9	0.8	11.0	5.1	14.7	13.9
May-22	15.9	19.0	17.0	33.7	11.0	11.7	9.1	17.5	10.9	31.0	0.8	13.0	6.0	18.5	14.9
Jun-22	23.6	27.4	25.5	41.2	16.9	13.1	18.4	20.5	11.8	63.4	1.0	16.3	6.2	23.0	16.8
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
<b>12- Month Moving Average</b>															
Jan-22	10.0	9.9	13.1	-7.5	2.8	9.4	12.9	10.9	8.3	11.7	0.8	7.4	3.3	8.5	9.7
Feb-22	10.4	10.5	13.0	-3.8	2.5	9.4	12.9	11.4	8.3	14.0	0.9	7.5	3.5	8.9	9.5
Mar-22	10.7	10.9	12.7	-0.1	2.3	9.4	12.9	11.8	8.4	16.1	1.0	7.8	3.8	9.5	9.7
Apr-22	11.1	11.2	12.7	2.6	2.5	9.5	12.9	12.3	8.6	17.9	1.0	8.2	4.0	10.1	10.0
May-22	11.5	11.7	12.7	5.6	3.1	9.6	12.8	12.9	8.8	19.3	1.0	8.6	4.3	11.0	10.4
Jun-22	12.7	13.2	13.9	9.0	4.2	9.9	13.5	13.7	9.1	23.4	1.0	9.3	4.5	12.3	10.9
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
<b>Period Average (Since July)</b>															
Jan-22	9.9	8.9	11.6	-5.6	1.8	9.0	14.5	11.2	7.9	15.0	1.0	7.5	3.8	8.9	8.7
Feb-22	10.4	9.7	11.7	-1.8	1.8	9.1	14.1	11.7	8.2	16.3	1.0	7.6	3.8	9.5	9.0
Mar-22	10.8	10.4	11.9	1.2	1.9	9.2	13.8	12.1	8.4	17.5	1.0	7.9	4.0	10.1	9.4
Apr-22	11.2	11.2	12.3	4.3	2.3	9.4	13.4	12.6	8.6	18.5	1.0	8.2	4.2	10.6	9.9
May-22	11.6	11.9	12.8	6.5	3.0	9.6	13.0	13.0	8.8	19.7	1.0	8.7	4.3	11.3	10.3
Jun-22	12.7	13.2	13.9	9.0	4.2	9.9	13.5	13.7	9.1	23.4	1.0	9.3	4.5	12.3	10.9
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
<b>Month-on-Month</b>															
Jan-22	0.9	0.2	1.0	-5.1	0.3	0.8	1.9	1.3	0.9	2.0	0.2	0.7	0.2	1.6	1.0
Feb-22	1.5	2.8	1.4	13.3	0.3	0.6	-1.4	1.3	2.5	3.9	0.0	1.2	0.8	1.0	0.8
Mar-22	1.0	2.5	2.8	0.5	0.0	1.1	-2.3	1.7	0.2	0.0	0.1	2.0	1.1	1.2	1.4
Apr-22	1.6	3.1	0.6	20.0	2.8	2.3	-0.8	1.6	0.9	0.2	0.1	0.8	1.0	0.3	1.0
May-22	0.6	0.8	2.8	-10.7	5.3	0.9	-2.5	1.5	0.6	2.5	0.0	2.5	0.8	3.9	1.3
Jun-22	6.6	6.1	6.2	5.2	5.6	1.6	9.2	3.3	1.1	25.9	0.2	3.4	0.9	4.4	2.8
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
<b>3-Years Average (in current month during FY21-FY23)</b>															
YoY	17.3	21.8	23.4	15.7	14.2	12.4	12.3	18.0	12.9	20.4	0.9	19.8	5.7	16.0	17.5
MoM	1.4	1.2	3.1	-9.6	0.3	0.8	2.3	1.3	0.9	1.2	0.1	2.1	0.2	1.5	1.8

Source: Pakistan Bureau of Statistics

Table A7: Top Ten Contributors to Urban CPI Inflation (YoY) – January 2023

Items/Contributors	Weights	YoY Change		Weighted Contribution (%)	
		Jan-22	Jan-23		
<b>A. Ranked by Weighted Contribution</b>					
1	Readymade Food	5.52	13.43	36.73	8.35
2	Milk Fresh	7.11	11.09	29.27	8.28
3	Wheat Flour	3.01	15.81	61.25	7.59
4	Motor Fuel	2.91	36.22	46.00	7.16
5	Onions	0.59	-4.39	468.54	6.68
6	Chicken	1.36	17.08	83.27	4.09
7	House Rent	19.26	6.13	5.43	3.93
8	Appliances/Articles/Products For Personal	2.98	11.61	26.66	3.13
9	Rice	1.18	11.23	65.24	3.09
10	Washing Soap/Detergents/Match Box	1.41	17.95	46.99	2.76
<b>Total</b>		<b>45.33</b>			<b>55.06</b>
<b>B. Ranked by Percentage Change</b>					
1	Onions	0.59	-4.39	468.54	6.68
2	Chicken	1.36	17.08	83.27	4.09
3	Wheat	0.61	8.81	78.39	2.30
4	Text Books	0.67	10.96	71.29	1.66
5	Rice	1.18	11.23	65.24	3.09
6	Tea	0.84	8.62	65.04	2.18
7	Eggs	0.51	7.29	62.95	1.70
8	Wheat Flour	3.01	15.81	61.25	7.59
9	Wheat Products	0.09	10.74	51.81	0.22
10	Dessert Preparation	0.04	5.78	51.74	0.08
<b>Total</b>		<b>8.90</b>			<b>29.59</b>
<b>C. Ranked by Weights</b>					
1	House Rent	19.26	6.13	5.43	3.93
2	Milk Fresh	7.11	11.09	29.27	8.28
3	Readymade Food	5.52	13.43	36.73	8.35
4	Education	4.88	3.04	10.40	1.99
5	Electricity Charges	4.56	56.20	0.69	0.15
6	Wheat Flour	3.01	15.81	61.25	7.59
7	Appliances/Articles/Products For Personal	2.98	11.61	26.66	3.13
8	Motor Fuel	2.91	36.22	46.00	7.16
9	Cotton Cloth	2.22	10.06	20.73	1.89
10	Meat	2.04	22.38	20.01	2.03
<b>Total</b>		<b>54.49</b>			<b>44.50</b>

Note: Weighted contribution is estimated by multiplying the weights by the price change of an item; this is then reported as a share in YoY change in Urban CPI, which is 24.4 percent in January 2023.

**Table A8: Top Ten Contributors to Urban CPI Inflation (MoM) in January 2023**

Items/Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Dec-22	Jan-23		
<b>A. Ranked by Weighted Contribution</b>					
1	Wheat Flour	3.01	3.66	13.23	19.89
2	Chicken	1.36	5.43	24.62	15.17
3	House Rent	19.26	0.00	1.66	10.59
4	Readymade Food	5.52	1.63	3.90	9.93
5	Rice	1.18	5.85	14.16	8.26
6	Wheat	0.61	9.45	16.47	6.30
7	Milk Fresh	7.11	1.51	2.03	6.19
8	Onions	0.59	9.99	9.74	6.13
9	Personal Effects N.E.C.	0.94	4.99	7.90	4.37
10	Fresh Fruits	1.44	13.36	5.19	2.96
<b>Total</b>		<b>41.02</b>			<b>89.79</b>
<b>B. Ranked by Percentage Change</b>					
1	Chicken	1.36	5.43	24.62	15.17
2	Wheat	0.61	9.45	16.47	6.30
3	Rice	1.18	5.85	14.16	8.26
4	Wheat Flour	3.01	3.66	13.23	19.89
5	Wheat Products	0.09	1.90	11.70	0.57
6	Onions	0.59	9.99	9.74	6.13
7	Personal Effects N.E.C.	0.94	4.99	7.90	4.37
8	Text Books	0.67	32.12	7.60	2.39
9	Doctor (Mbbs) Clinic Fee	0.40	0.20	6.53	1.36
10	Bakery And Confectionary	0.48	1.21	5.43	1.23
<b>Total</b>		<b>9.33</b>			<b>65.67</b>
<b>C. Ranked by Weights</b>					
1	House Rent	19.26	0.00	1.66	10.59
2	Milk Fresh	7.11	1.51	2.03	6.19
3	Readymade Food	5.52	1.63	3.90	9.93
4	Education	4.88	0.22	0.07	0.13
5	Electricity Charges	4.56	-3.34	0.86	1.63
6	Wheat Flour	3.01	3.66	13.23	19.89
7	Appliances/Articles/Products For Personal	2.98	1.73	1.19	1.49
8	Motor Fuel	2.91	-1.82	-0.60	-1.16
9	Cotton Cloth	2.22	0.51	0.02	0.02
10	Meat	2.04	0.23	0.09	0.09
<b>Total</b>		<b>54.49</b>			<b>48.80</b>

Note: Weighted contribution is estimated by multiplying the weights by the price change of an item; this is then reported as a share in MoM change in Urban CPI, which is 2.4 percent in January 2023.

**Table A9: Top and Bottom Fifteen Contributors to Urban CPI Inflation (YoY) in January 2023**

Items/Contributors	Weights	YoY Change		Weighted Contribution (%)	
		Jan-22	Jan-23		
<b>A. Ranked by Weighted Contribution</b>					
1	Readymade Food	5.52	13.43	36.73	8.35
2	Milk Fresh	7.11	11.09	29.27	8.28
3	Wheat Flour	3.01	15.81	61.25	7.59
4	Motor Fuel	2.91	36.22	46.00	7.16
5	Onions	0.59	-4.39	468.54	6.68
6	Chicken	1.36	17.08	83.27	4.09
7	House Rent	19.26	6.13	5.43	3.93
8	Appliances/Articles/Products For Personal	2.98	11.61	26.66	3.13
9	Rice	1.18	11.23	65.24	3.09
10	Washing Soap/Detergents/Match Box	1.41	17.95	46.99	2.76
11	Wheat	0.61	8.81	78.39	2.30
12	Tea	0.84	8.62	65.04	2.18
13	Cooking Oil	1.10	54.33	31.46	2.11
14	Meat	2.04	22.38	20.01	2.03
15	Education	4.88	3.04	10.40	1.99
<b>Total</b>		<b>54.80</b>			<b>65.67</b>
<b>Bottom 15 Contributors</b>					
1	Gur	0.04	13.27	-2.72	0.00
2	Gas Charges	1.08	0.00	0.00	0.00
3	Therapeutic Appliances And Equipme	0.01	4.32	5.82	0.00
4	Major Tools & Equipments	0.01	11.01	19.73	0.01
5	Dental Services	0.02	4.90	14.02	0.01
6	Carpets	0.03	7.58	9.29	0.01
7	Postal Services	0.02	8.39	13.02	0.01
8	Newspapers	0.07	0.00	4.21	0.01
9	Motor Vehicle Tax	0.05	7.62	8.92	0.02
10	Electrical Appliances For Personal	0.05	10.55	11.15	0.02
11	Accommodation Services	0.13	4.87	6.55	0.03
12	Communication Services	1.88	1.96	0.52	0.03
13	Mustard Oil	0.01	46.68	42.28	0.03
14	Honey	0.10	19.25	7.88	0.03
15	Sugar	1.11	-0.66	0.83	0.04
<b>Total</b>		<b>4.61</b>			<b>0.25</b>

**Table A10: Top and Bottom Fifteen Contributors to Urban CPI Inflation (MoM) in January 2023**

Items/Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Dec-22	Jan-23		
<b>A. Ranked by Weighted Contribution</b>					
1	Wheat Flour	3.01	3.66	13.23	19.89
2	Chicken	1.36	5.43	24.62	15.17
3	House Rent	19.26	0.00	1.66	10.59
4	Readymade Food	5.52	1.63	3.90	9.93
5	Rice	1.18	5.85	14.16	8.26
6	Wheat	0.61	9.45	16.47	6.30
7	Milk Fresh	7.11	1.51	2.03	6.19
8	Onions	0.59	9.99	9.74	6.13
9	Personal Effects N.E.C.	0.94	4.99	7.90	4.37
10	Fresh Fruits	1.44	13.36	5.19	2.96
11	Text Books	0.67	32.12	7.60	2.39
12	Marriage Hall Charges	1.75	1.68	2.71	1.90
13	Drugs And Medicines	1.07	1.78	4.05	1.82
14	Electricity Charges	4.56	-3.34	0.86	1.63
15	Eggs	0.51	9.71	4.36	1.57
<b>Total</b>		<b>49.58</b>			<b>99.10</b>
<b>Bottom 15 Contributors</b>					
1	Potatoes	0.45	-21.33	-26.21	-6.41
2	Tomatoes	0.35	-53.96	-39.01	-5.93
3	Motor Fuel	2.91	-1.82	-0.60	-1.16
4	Transport Services	1.75	1.50	-1.50	-1.08
5	Vegetable Ghee	1.03	-2.03	-1.21	-0.87
6	Sugar	1.11	3.12	-0.87	-0.32
7	Cooking Oil	1.10	-1.39	-0.36	-0.27
8	Fresh Vegetables	1.53	-24.89	-0.33	-0.18
9	Gur	0.04	-0.31	-0.09	0.00
10	Gas Charges	1.08	0.00	0.00	0.00
11	Newspapers	0.07	0.00	0.00	0.00
12	Communication Services	1.88	0.00	0.00	0.00
13	Motor Vehicle Tax	0.05	0.00	0.00	0.00
14	Water Supply	0.53	0.00	0.00	0.00
15	Postal Services	0.02	0.06	0.00	0.00
<b>Total</b>		<b>13.90</b>			<b>-16.22</b>

**Table A11: Top and Bottom Fifteen Contributors to MoM Urban CPI Food Inflation in January 2023**

Items/Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Dec-22	Jan-23		
<b>A. Ranked by Weighted Contribution</b>					
1	Wheat flour	3.01	3.66	13.23	19.89
2	Chicken	1.36	5.43	24.62	15.17
3	Readymade food	5.52	1.63	3.90	9.93
4	Rice	1.18	5.85	14.16	8.26
5	Wheat	0.61	9.45	16.47	6.30
6	Milk fresh	7.11	1.51	2.03	6.19
7	Onions	0.59	9.99	9.74	6.13
8	Fresh fruits	1.44	13.36	5.19	2.96
9	Eggs	0.51	9.71	4.36	1.57
10	Bakery and confectionary	0.48	1.21	5.43	1.23
11	Condiments and Spices	1.33	2.15	1.62	0.92
12	Wheat products	0.09	1.90	11.70	0.57
13	Dry fruits	0.33	8.84	3.75	0.56
14	Milk products	0.64	1.30	1.46	0.40
15	Tea	0.84	1.18	0.80	0.37
<b>Total</b>		<b>25.05</b>			<b>80.45</b>
<b>Bottom 15 Contributors</b>					
1	Potatoes	0.45	-21.33	-26.21	-6.41
2	Tomatoes	0.35	-53.96	-39.01	-5.93
3	Vegetable ghee	1.03	-2.03	-1.21	-0.87
4	Sugar	1.11	3.12	-0.87	-0.32
5	Cooking oil	1.10	-1.39	-0.36	-0.27
6	Fresh vegetables	1.53	-24.89	-0.33	-0.18
7	Gur	0.04	-0.31	-0.09	0.00
8	Pan prepared	0.14	0.26	0.00	0.00
9	Ice cream	0.10	0.00	0.12	0.00
10	Mustard oil	0.01	0.43	1.09	0.01
11	Honey	0.10	0.62	0.61	0.02
12	Cigarettes	0.72	0.16	0.10	0.03
13	Besan	0.08	-3.23	1.58	0.06
14	Beans	0.04	3.81	2.88	0.06
15	Dessert preparation	0.04	5.67	3.44	0.06
<b>Total</b>		<b>6.85</b>			<b>-13.73</b>

**Table A12: Top and Bottom Fifteen Contributors to MoM Urban CPI Non-Food Inflation in January 2023**

Items/Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Dec-22	Jan-23		
<b>A. Ranked by Weighted Contribution</b>					
1	House rent	19.26	0.00	1.66	10.59
2	Personal Effects n.e.c.	0.94	4.99	7.90	4.37
3	Text books	0.67	32.12	7.60	2.39
4	Marriage Hall Charges	1.75	1.68	2.71	1.90
5	Drugs and medicines	1.07	1.78	4.05	1.82
6	Electricity charges	4.56	-3.34	0.86	1.63
7	Appliances/Articles/Products for Personal	2.98	1.73	1.19	1.49
8	Doctor (MBBS) clinic fee	0.40	0.20	6.53	1.36
9	Washing soap/detergents/match Box	1.41	5.11	1.69	1.23
10	Liquefied Hydrocarbons	0.51	0.10	2.81	0.82
11	Personal Grooming Services	0.80	0.64	2.03	0.67
12	Mechanical services	0.43	0.24	3.61	0.61
13	Hosiry	0.41	0.55	3.93	0.60
14	Tailoring	1.07	0.42	1.32	0.57
15	Solid Fuel	0.42	6.63	3.23	0.50
<b>Total</b>		<b>36.68</b>			<b>30.55</b>
<b>Bottom 15 Contributors</b>					
1	Motor fuel	2.91	-1.82	-0.60	-1.16
2	Transport services	1.75	1.50	-1.50	-1.08
3	Gas charges	1.08	0.00	0.00	0.00
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	Water supply	0.53	0.00	0.00	0.00
8	Postal services	0.02	0.06	0.00	0.00
9	Garbage collection	0.11	0.04	0.00	0.00
10	Accommodation Services	0.13	0.35	0.00	0.00
11	Therapeutic Appliances and Equipment	0.01	0.07	0.06	0.00
12	Dental services	0.02	0.97	0.40	0.00
13	Medical tests	0.24	1.60	0.06	0.00
14	Carpets	0.03	0.12	0.64	0.01
15	Hospitals services	0.57	0.09	0.03	0.01
<b>Total</b>		<b>9.38</b>			<b>-2.22</b>

**Table A13: Top Ten Contributors to Rural CPI Inflation (YoY) in January 2023**

Items/Contributors	Weights	YoY Change		Weighted Contribution (%)	
		Jan-22	Jan-23		
<b>A. Ranked by Weighted Contribution</b>					
1	Wheat	3.47	4.80	100.20	12.19
2	Milk Fresh	10.38	10.22	30.65	8.93
3	Onions	0.90	-7.75	530.33	7.64
4	Wheat Flour	3.43	15.37	56.14	6.23
5	Motor Fuels	2.49	34.86	47.91	4.65
6	Solid Fuel	4.48	14.02	32.84	4.58
7	Readymade Food	3.80	13.01	31.36	3.95
8	Rice	1.55	6.71	65.64	3.81
9	Chicken	1.46	17.17	88.81	3.69
10	Vegetable Ghee	2.38	49.27	30.67	3.69
<b>Total</b>		<b>34.34</b>			<b>59.36</b>
<b>B. Ranked by Percentage Change</b>					
1	Onions	0.90	-7.75	530.33	7.64
2	Wheat	3.47	4.80	100.20	12.19
3	Chicken	1.46	17.17	88.81	3.69
4	Rice	1.55	6.71	65.64	3.81
5	Text Books	0.50	7.51	65.63	0.81
6	Tea	1.26	8.91	60.33	2.20
7	Wheat Products	0.11	10.43	59.90	0.20
8	Gram Whole	0.11	29.34	58.73	0.19
9	Eggs	0.57	4.09	56.18	1.26
10	Wheat Flour	3.43	15.37	56.14	6.23
<b>Total</b>		<b>13.36</b>			<b>38.22</b>
<b>C. Ranked by Weights</b>					
1	Milk Fresh	10.38	10.22	30.65	8.93
2	House Rent	8.61	5.92	6.90	1.66
3	Solid Fuel	4.48	14.02	32.84	4.58
4	Readymade Food	3.80	13.01	31.36	3.95
5	Wheat	3.47	4.80	100.20	12.19
6	Electricity Charges	3.44	56.20	0.69	0.09
7	Wheat Flour	3.43	15.37	56.14	6.23
8	Cotton Cloth	2.84	8.56	15.59	1.49
9	Motor Fuels	2.49	34.86	47.91	4.65
10	Vegetable Ghee	2.38	49.27	30.67	3.69
<b>Total</b>		<b>45.32</b>			<b>47.46</b>

Note: Weighted contribution is estimated by multiplying the weights by the price change of an item; this is then reported as a share in YoY change in Rural CPI, which is 32.3 percent in January 2023.

**Table A14: Top Ten Contributors to Rural CPI Inflation (MoM) in January 2023**

Items/Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Dec-22	Jan-23		
<b>A. Ranked by Weighted Contribution</b>					
1	Wheat	3.47	8.97	27.90	37.04
2	Wheat Flour	3.43	3.26	13.81	14.67
3	Chicken	1.46	1.71	32.95	13.57
4	Rice	1.55	6.62	12.26	7.32
5	House Rent	8.61	0.00	3.12	5.44
6	Onions	0.90	18.06	8.75	5.10
7	Solid Fuel	4.48	6.36	2.92	3.66
8	Readymade Food	3.80	0.86	3.10	3.47
9	Personal Effects N.E.C.	1.21	6.49	7.24	3.16
10	Milk Fresh	10.38	0.88	0.91	2.40
<b>Total</b>		<b>39.29</b>			<b>95.83</b>
<b>B. Ranked by Percentage Change</b>					
1	Chicken	1.46	1.71	32.95	13.57
2	Wheat	3.47	8.97	27.90	37.04
3	Wheat Products	0.11	1.79	16.33	0.53
4	Wheat Flour	3.43	3.26	13.81	14.67
5	Rice	1.55	6.62	12.26	7.32
6	Text Books	0.50	18.82	10.91	1.40
7	Onions	0.90	18.06	8.75	5.10
8	Dessert Preparation	0.01	2.93	7.83	0.03
9	Pulse Moong	0.25	-0.74	7.40	0.41
10	Dry Fruits	0.25	8.15	7.38	0.58
<b>Total</b>		<b>11.93</b>			<b>80.65</b>
<b>C. Ranked by Weights</b>					
1	Milk Fresh	10.38	0.88	0.91	2.40
2	House Rent	8.61	0.00	3.12	5.44
3	Solid Fuel	4.48	6.36	2.92	3.66
4	Readymade Food	3.80	0.86	3.10	3.47
5	Wheat	3.47	8.97	27.90	37.04
6	Electricity Charges	3.44	-3.34	0.86	0.75
7	Wheat Flour	3.43	3.26	13.81	14.67
8	Cotton Cloth	2.84	0.02	0.14	0.11
9	Motor Fuels	2.49	-1.99	-0.50	-0.50
10	Vegetable Ghee	2.38	-1.45	-1.02	-1.13
<b>Total</b>		<b>45.32</b>			<b>65.91</b>

Note: Weighted contribution is estimated by multiplying the weights by the price change of an item; this is then reported as a share in MoM change in Rural CPI, which is 3.6 percent in January 2023.

**Table A15: Top and Bottom Fifteen Contributors to Rural CPI Inflation (YoY) in January 2023**

Items/Contributors	Weights	YoY Change		Weighted Contribution (%)	
		Jan-22	Jan-23		
<b>A. Ranked by Weighted Contribution</b>					
1	Wheat	3.47	4.80	100.20	12.19
2	Milk Fresh	10.38	10.22	30.65	8.93
3	Onions	0.90	-7.75	530.33	7.64
4	Wheat Flour	3.43	15.37	56.14	6.23
5	Motor Fuels	2.49	34.86	47.91	4.65
6	Solid Fuel	4.48	14.02	32.84	4.58
7	Readymade Food	3.80	13.01	31.36	3.95
8	Rice	1.55	6.71	65.64	3.81
9	Chicken	1.46	17.17	88.81	3.69
10	Vegetable Ghee	2.38	49.27	30.67	3.69
11	Transport Services	1.80	14.12	44.83	2.27
12	Tea	1.26	8.91	60.33	2.20
13	Washing Soaps, Detergents And Match Box	1.70	18.20	41.02	2.10
14	Personal Effects N.E.C.	1.21	9.17	39.31	1.90
15	House Rent	8.61	5.92	6.90	1.66
<b>Total</b>		<b>48.92</b>			<b>69.49</b>
<b>Bottom 15 Contributors</b>					
1	Potatoes	0.74	5.54	-5.05	-0.14
2	Sugar	2.03	1.49	-0.18	-0.01
3	Postal Services	0.01	0.00	0.00	0.00
4	Newspapers	0.02	0.00	0.10	0.00
5	Garbage Collection	0.01	11.25	7.13	0.00
6	Water Supply	0.06	1.63	1.63	0.00
7	Gur	0.15	11.07	1.08	0.00
8	Communication Services	1.65	0.62	0.16	0.01
9	Honey	0.03	21.08	7.86	0.01
10	Dental Services	0.02	10.45	19.73	0.01
11	Motor Vehicle Tax	0.02	-5.56	24.88	0.01
12	Cleaning And Laundering	0.02	15.44	21.18	0.01
13	Dessert Preparation	0.01	8.56	43.89	0.02
14	Accommodation Services	0.14	0.00	7.08	0.02
15	Ice Cream	0.06	7.88	12.38	0.02
<b>Total</b>		<b>4.97</b>			<b>-0.04</b>

**Table A16: Top and Bottom Fifteen Contributors to Rural CPI (MoM) Inflation in January 2023**

Items/Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Dec-22	Jan-23		
<b>A. Ranked by Weighted Contribution</b>					
1	Wheat	3.47	8.97	27.90	37.04
2	Wheat Flour	3.43	3.26	13.81	14.67
3	Chicken	1.46	1.71	32.95	13.57
4	Rice	1.55	6.62	12.26	7.32
5	House Rent	8.61	0.00	3.12	5.44
6	Onions	0.90	18.06	8.75	5.10
7	Solid Fuel	4.48	6.36	2.92	3.66
8	Readymade Food	3.80	0.86	3.10	3.47
9	Personal Effects N.E.C.	1.21	6.49	7.24	3.16
10	Milk Fresh	10.38	0.88	0.91	2.40
11	Fresh Fruits	1.45	6.68	5.75	1.99
12	Washing Soaps, Detergents And Match Box	1.70	4.13	4.08	1.97
13	Fresh Vegetables	2.09	-26.22	3.36	1.51
14	Text Books	0.50	18.82	10.91	1.40
15	Liquefied Hydrocarbons	1.00	1.18	4.15	1.36
<b>Total</b>		<b>46.03</b>			<b>104.06</b>
<b>Bottom 15 Contributors</b>					
1	Potatoes	0.74	-21.17	-28.17	-7.18
2	Tomatoes	0.51	-52.15	-37.83	-5.47
3	Vegetable Ghee	2.38	-1.45	-1.02	-1.13
4	Sugar	2.03	4.82	-2.01	-0.84
5	Transport Services	1.80	0.64	-0.99	-0.51
6	Motor Fuels	2.49	-1.99	-0.50	-0.50
7	Postal Services	0.01	0.00	0.00	0.00
8	Newspapers	0.02	0.00	0.00	0.00
9	Garbage Collection	0.01	0.00	0.00	0.00
10	Communication Services	1.65	0.00	0.00	0.00
11	Accommodation Services	0.14	0.00	0.00	0.00
12	Motor Vehicle Tax	0.02	0.00	0.00	0.00
13	Water Supply	0.06	0.00	0.00	0.00
14	Ice Cream	0.06	0.00	0.00	0.00
15	Mechanical Services	0.36	0.00	0.00	0.00
<b>Total</b>		<b>12.28</b>			<b>-15.63</b>

**Table A17: Top and Bottom Fifteen Contributors to MoM Rural CPI Food Inflation in January 2023**

Items/Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Dec-22	Jan-23		
<b>A. Ranked by Weighted Contribution</b>					
1	Wheat	3.47	8.97	27.90	37.04
2	Wheat Flour	3.43	3.26	13.81	14.67
3	Chicken	1.46	1.71	32.95	13.57
4	Rice	1.55	6.62	12.26	7.32
5	Onions	0.90	18.06	8.75	5.10
6	Readymade Food	3.80	0.86	3.10	3.47
7	Milk fresh	10.38	0.88	0.91	2.40
8	Fresh fruits	1.45	6.68	5.75	1.99
9	Fresh Vegetables	2.09	-26.22	3.36	1.51
10	Condiments and Spices	1.49	1.18	2.06	0.89
11	Dry fruits	0.25	8.15	7.38	0.58
12	Tea	1.26	3.01	1.42	0.57
13	Wheat Products	0.11	1.79	16.33	0.53
14	Meat	1.71	0.50	0.96	0.50
15	Bakery and Confectionary	0.37	1.93	4.00	0.44
<b>Total</b>		<b>33.73</b>			<b>90.57</b>
<b>Bottom 15 Contributors</b>					
1	Potatoes	0.74	-21.17	-28.17	-7.18
2	Tomatoes	0.51	-52.15	-37.83	-5.47
3	Vegetable ghee	2.38	-1.45	-1.02	-1.13
4	Sugar	2.03	4.82	-2.01	-0.84
5	Ice Cream	0.06	0.00	0.00	0.00
6	Pan Prepared	0.04	0.00	0.29	0.00
7	Honey	0.03	0.51	0.89	0.01
8	Gur	0.15	1.25	0.49	0.02
9	Nimco	0.08	0.52	0.76	0.02
10	Mustard oil	0.01	0.95	3.23	0.02
11	Dessert Preparation	0.01	2.93	7.83	0.03
12	Milk powder	0.11	1.33	1.59	0.04
13	Besan	0.07	-2.28	2.67	0.05
14	Pulse Mash	0.15	-0.38	1.83	0.06
15	Beans	0.09	1.26	2.28	0.07
<b>Total</b>		<b>6.46</b>			<b>-14.31</b>

**Table A18: Top and Bottom Fifteen Contributors to MoM Rural CPI Non-Food Inflation in January 2023**

Items/Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Dec-22	Jan-23		
<b>A. Ranked by Weighted Contribution</b>					
1	House Rent	8.61	0.00	3.12	5.44
2	Solid Fuel	4.48	6.36	2.92	3.66
3	Personal Effects n.e.c.	1.21	6.49	7.24	3.16
4	Washing Soaps, Detergents and Match Box	1.70	4.13	4.08	1.97
5	Text Books	0.50	18.82	10.91	1.40
6	Liquefied Hydrocarbons	1.00	1.18	4.15	1.36
7	Personal Grooming Services	1.54	3.31	2.06	0.95
8	Electricity Charges	3.44	-3.34	0.86	0.75
9	Appliances/Articles/Products for Personal	2.27	2.32	1.12	0.57
10	Recreation and Culture	0.48	0.84	2.42	0.29
11	Marriage Hall Charges	2.25	0.24	0.57	0.28
12	Readymade Garments	1.13	0.51	0.91	0.25
13	Household Equipments	1.28	1.14	0.67	0.23
14	Hosiery	0.43	1.71	1.55	0.22
15	Furniture and Furnishing	0.58	0.60	1.49	0.22
<b>Total</b>		<b>30.90</b>			<b>20.74</b>
<b>Bottom 15 Contributors</b>					
1	Transport Services	1.80	0.64	-0.99	-0.51
2	Motor Fuels	2.49	-1.99	-0.50	-0.50
3	Postal Services	0.01	0.00	0.00	0.00
4	Newspapers	0.02	0.00	0.00	0.00
5	Garbage Collection	0.01	0.00	0.00	0.00
6	Communication Services	1.65	0.00	0.00	0.00
7	Accommodation Services	0.14	0.00	0.00	0.00
8	Motor Vehicle Tax	0.02	0.00	0.00	0.00
9	Water Supply	0.06	0.00	0.00	0.00
10	Mechanical Services	0.36	0.00	0.00	0.00
11	Hospitals Services	1.01	0.00	0.00	0.00
12	Dental Services	0.02	0.20	0.00	0.00
13	Medical Tests	0.40	0.20	0.00	0.00
14	Motor Vehicles	0.73	0.01	0.02	0.00
15	Cleaning and Laundering	0.02	0.65	0.69	0.00
<b>Total</b>		<b>8.73</b>			<b>-1.00</b>

Table A19: Distribution of Price Changes (YoY) - Selected Urban CPI Items: January 2023

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 Powder National 200 Gm Packet, Cardamom Small (Average Quality), Radish (Mooli), Turnip (Shalgham), Gur (Average Quality), Chilies (Green), Peas (Matar), Kinnu (Average Quality), Peach	Sugar Refined, Guava (Amrood) (Average Quality), Lemon, Jam-E-Shireen Standard Size (800 Ml), Cardamom Large (Loose) (Average Quality), Carrot (Gajar),	Potatoes, Spinach (Paalak), Honey Marhaba Bottle 500 Gm,	Cucumber (Kheera), Coriander Seed Powder National 200 Gm Packet, Almonds (Badam) Kaghazi With Shell (Average Quality), Cauliflower (Phool Gobhi), Ginger (Adrak), Turmeric Powder National
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,		Vest "Baniyan" For Men Average Quality, Shirt Boy Length 24"/26", Dry Cleaning Charges Pant Coat Both,	Women Shalwar Kameez (Average Quality), Dopatta Georgette (Average Quality), Dopatta Cotton (Average Quality), Tailoring Charges Pant (Men), Socks Nylon Local (Average Quality), Pant Cloth Wash & Wear (Average Quality), Gents Shoes Paul Bata, Heavy Weight Suiting Lawrence Pur (Average Quality), Awami Suit Gents Wash & Wear (Average Quality), Full Pant
Housing, Water, Elec, Gas & other Fuels	Electricity Charges 51-100 Units, Electricity Charges Upto 50 Units, Electricity Charges 101-300 Units, Gas Charges Upto 3.3719 Mmbtu , Gas Charges 3.3719 - 6.7438 Mmbtu , Gas Charges 6.7438 - 10.1157 Mmbtu , Gas Charges 10.1157 - 13.4876 Mmbtu	Electricity Charges Combined, Water Charges Per House,	House Rent Combined, Lpg 11.67 Kg Cylinder, Electricity Charges 301-700 Units,	Electricity Charges Above 700 Units, Bricks New 1St Class, Electrician Charges, Painter Wage Rate, Mason Wage Rate, Charges For Refuse/Waste Collection, Unskilled Labor Wage Rate, Plumber Wage Rate, Iron Bars (M.S. Bar) 1/2 " 40 Grade, Sand (Black Pit), Firewood Whole, Bajri,
Furnishing & Household Equip. Maintenance etc			Bed Sheet Double With Two Pillow Covers (Superior Quality), Water Set (Omroc) 6 Glasses + Jug, Bed Sheet Single (Superior Quality), Plain Carpet,	Sewing Machine (Sn) Without Cover, Dining Table Wit Glass Top And Six Chairs (Average Quality), Frying Pan Non-Stick Medium Size Sonex, Bucket (Balti) Plastic Medium Size, Air Cooler Super Asia Ecm-4000/Jc-1000, Cot Iron (Charpai), Electric Iron Dry (National/West Point), Dinner Set
Health		Ventolin Tablets 2 Mg, Sugar Test (Random/Fasting) Charges Of Both, Blood Test (Cp) Charges, Electronic Bp Checking Apparatus,	Cost Of Surgery (C-Section), Amoxil Capsule 250 Mg, Flagyl Tablets 400 Mg, Cac 1000 Tablets Sandoz Bottle, Glucometer, Gynecologist Fee Per Visit, Physiotherapist Fee Per Visit, Lederplex Syrup Bottle, Hydryllin	Betnovate-N Ointment 10 Gm Tube, Inderal Tablets 10 Mg, Dental Surgeon Fee Per Visit, Ecg Charges, Septran Tablets, Glaxose-D 400 Gm Packet, Dental Extraction Fee, Ultrasound Abdominal, Johar Joshanda Instant (Sachet) Packet, Urine Test (Dr) Charges, Calpol Syrup 100
Transport	Car Suzuki 800 Cc Without Ac,		Air Fare Economy Class Per Kilometer (National Average), Car Tax 800 Cc To 1500 Cc,	Motorcycle Service Charges, Car Service Charges, Cng, Train Fare Ac Sleeper Per Person, Bus Fare Minimum Within City, Tire Motorcycle Cd 70 (Back Wheel), Mini Bus Fare Minimum Within City, Tire Car Puncture Charges, Car Toyota 1300 Cc Xli, Mini Bus Fare Maximum Within City, Taxi
Communication	Mobile Call Charges, Telephone Call Charges,	Internet Charges (Dsl) 1 Mb (Unlimited),	Mobile Set With Rear Camera And Without Touch Screen,	Courier Charges Minimum Within Zone Outside City (Tcs),
Recreation & Culture	Newspaper Daily Jang, Mag The Weekly (Magazine),		Akhbar-E-Jehan Weekly, Urdu Book Ba/B.Sc, Recreational Park Charges (Minimum Playland Ticket),	Cable Charges, Led Sony/Samsung 32" Colored, Newspaper Daily Dawn, Personal Computer With Led Monitor (17") Dell/Hp/Acer Core I5, Pen Ink Dollar 57 Ml Bottle, Laptop Dell/Hp/Acer Core I5, Display (14'-15'), English Book Ba/B.Sc, Ballpoint Pen Local, Exercise Book (With
Education	Government University Fee M.S.C / M.A.,	Government College Fee First Year, Coaching Fee For Class Xi/Xii Science Group, Coaching Fee For Class Xi/Xii Commerce Group, Vocational Training Basic Computer Short Course Fee (3	Government Medical College/University Tuition Fee For Mbbs (1St Year), Tuition Fee Private University M.Sc./M.A, Private Engineering University	Government Engineering University Tuition Fee For Be (1St Year), Private School Fee English Medium Average Standard (Class I), Private School Fee English Medium Average Standard (Class Vi), Private
Restaurant & Hotels		Government Hostel Accommodation Fee For Intermediate College Per Student,		Marriage Hall Service Charges With Food (Average Meal), Private Hostel Accommodation Fee For Intermediate College Per Student, Marriage Hall Charges With Furniture, Seekh Kabab (Beef) (Average Quality), Pizza Chicken Medium
Miscellaneous			Purse Ladies Medium Size (Average Quality), Shampoo Sun Silk/Pantene 90 Ml Bottle,	Electric Hair Straightener (Philips), Hair Style Charges (At Average Beauty Parlor), Tooth Brush (Shield), Artificial Jewelry (Locket Set) (Average Quality), Tissue Paper Perfumed Box 100 Napkins, Nail Polish Swiss Miss/Medora (Medium), Perfume Medium Size Broche/Medora,

Table A20: Distribution of Price Changes (YoY) - Selected Rural CPI Items: January 2023

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	Guava (Amrood) (Average Quality), Chillies (Green), Potatoes, Cucumber (Kheera), Radish (Mooli), Turnip (Shalgham), Peas (Matar), Sugar Refined,	Gur (Average Quality), Jam-E-Shireen Standard Size (800 MI),	Ginger (Adrak), Honey Marhaba Bottle 500 Gm,	Ice Cream Walls Cup (Large Size), Spinach (Paalak), Cold Drink (Pepsi/Coca-Cola) 1.5 Liter Bottle, Carrot (Gajar), Almonds (Badam) Kaghazi With Shell (Average Quality), Fruit Juice Small Packet 250 MI, Beef With Bone (Average Quality), Mutton (Average Quality), Fish Fresh, Lemon,
Alcoholic Beverages & Tobacco				Tobacco Hukka Twisted, Pan Prepared (Sweet With Beetle Nuts), Cigarettes Capstan 20'S Packet, Chewing Tobacco (Niswar), Cigarettes Gold Leaf 20'S Packet,
Clothing & Footwear				Dopatta Georgette (Average Quality), Footware Gents Local (Average Quality), Chaddar (Wash-N-Wear) (2X2.5 Meter), Shirting (Average Quality), Pullover Ladies (Average Quality), Lawn Printed (Average Quality), Long Cloth, Shirt Boy Length 24"/26", Full Pant Boy Length 24"/26", Georgette (Average Quality), Footware Ladies Local (Average Quality), Donatta
Housing, Water, Elec, Gas & other Fuels	Electricity Charges 51-100 Units, Electricity Charges Upto 50 Units, Electricity Charges 101-300 Units,	Electricity Charges Combined, Water Charges Per House,	House Rent Combined, Charges For Refuse/Waste Collection, Electricity Charges 301-1000 Units, Carpenter Wage Rate,	Plumber Wage Rate, Electricity Charges Above 1000 Units, Mason Wage Rate, Painter Wage Rate, Lpg 11.67 Kg Cylinder, Unskilled Labor Wage Rate, Electrician Charges, Bricks New 1St Class, Coal, Firewood Whole, Sand (Black Pit), Bajri,
Furnishing & Household Equip. Maintenance etc				Aluminium Cooking Pan (Degchi), Cot Iron (Charpai), Water Set (Omroc) 6 Glass, Bucket (Balti) Plastic Medium Size, Blanket Single (Sn), Tea Set Pakistani (China-Ware) Set Of 21 Pieces, Readymade Quilt (3 Kg), Sewing Machine (Sn) Without Cover,
Health		Physiotherapist Fee Per Visit,	Hydrillin Syrup 120 MI Bottle, Cost Of Surgery (C-Section), Cac 1000 Tablets Sandoz Bottle, Daonil Tablets 5 Mg,	Blood Test (Cp) Charges, Amoxil Capsule 250 Mg, Inderal Tablets 10 Mg, Johar Joshanda Instant (Sachet) Packet, X-Ray (Chest) Charges, Doctor (Mbbs) Clinic Fee, Dental Surgeon Fee Per Visit, Dettol
Transport	Car Suzuki 800 Cc Without Ac,		Air Fare Economy Class Per Kilometer,	Bus Fare Outside City (Non Ac), Cng, Motorcycle Service Charges, Tire Cycle, Car Tax 800 Cc To 1500 Cc, Tire Motorcycle Cd 70 (Back Wheel), Motorcycle Honda Cd 70, Tire Car Mehran Tubeless (General), Bicycle, Mobil Oil
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		Newspaper Daily Jang,	Cable Charges,	Led Sony/Samsung 32" Colored, Personal Computer With Led Monitor (17") Dell/Hp/Acer Core I5, Ballpoint Pen Local, Lead Pencil Goldfish, Exercise Book (With Lines) 80 To 100 Pages, English Books Class Vi, English Books Class Xi Complete Set, <del>Rate Book, Urdu Books Class V/Class</del>
Education			Vocational Training Basic Computer Short Course Fee (3 Months) , Private School Fee English Medium Average Standard (Class I),	Private School Fee English Medium Average Standard (Class V), Private School Fee English Medium Average Standard (Class Vi), Coaching Fee For Class Ix/X Science Group,
Restaurant & Hotels	Government Hostel Accommodation Fee For Intermediate College Per Student,			Marriage Hall Charges With Furniture, Marriage Hall Service Charges With Food (Average Meal), Cooked Beef At Average Hotel, Tea Prepared Ordinary, Pizza Chicken Medium Size (Average Quality), Private Hostel Accommodation Fee For
Miscellaneous			Tooth Brush (Shield),	Talcum Powder Viceroy/Black Cat, Shampoo Sun Silk/Pantene 90 MI Bottle, Blade Treet Ordinary (10 No. Packet), Trunk Medium Size (Average Quality), Shaving Cream (Touchme Large/Admiral), Tooth Paste Colgate 75 Gm, Hair Color (Kala Kola), Shaving Charges, Hair Cut Charges For Men, Hair Removing Cream

Table A21: Distribution of Price Changes (YoY) - WPI Items: January 2023

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, Edible Roots / Potatoes,	Raw Animal Materials / Wool, Unmanufactured Tobacco,	Sorghum / Jowar,	Fish Live Fresh or Chilled, Sugar Crops, Cotton Seeds, Fuel Wood in Logs, Millet / Bajra, Raw Milk from Bovine Animals, Other Oil Seeds, Stimulant & Spice Crops, Hides, Skins & Fur Skins, Raw, Pulses, Maize, Fresh Fruits, Rice,
ores/Minerals, Elec., Gas & Water		Natural Gas Liquefied,	Salt & Pure Sodium Chloride,	Electrical Energy, Coal not Agglomerated,
Food, Beverages, Tobacco, Textile, Apparel and Leather Product	Spices, Sugar Refined, Nylon Yarn, Cotton Yarn, Blended Yarn, Woolen Carpets,		Synthetic Carpets, Bed Sheets, Sugar Confectionary, Chocolate,	Woven Fabrics, Ice Cream, Towels, Cotton Fabrics, Leather Without Hair, Meat of Animals, Other Food Products, Hosiery Products, Beverages, Other Leather N.E.C, Mineral Water, Dairy Products N.E.C, Oil Cakes,
Other Transportable Goods except Metal Products, Machinery and Equipments	Hard Board, Dyeing Material, Insecticides,	Other Glass Articles,	Plastic Products, Pesticides,	Furnace Oil, Bricks, Blocks & Tiles, Timber, Matches, Auto Tyres, Soaps & Detergents, Ceramics & Sanitary Fixture, Chemicals, Bed Foam, Paints & Varnishes, Fertilizers, Cement, Mobil Oil,
Metal Product, Machinery & Equipments	Vacuum Pumps, Cultivators, Engines & Motors,	Steel Products,	Fridge, WashM, SewM, Fans, Iron,	Radio & Television, Steel Bar & Sheets, Motor Vehicles, Pipe Fittings, Bicycles, Motorcycles, Electric Wires, Lathe Machines, Tractors, Air Conditioners, Concrete Mixture, Chuff Cutter, Lighting Equipments,

<b>Table A22: International Commodity Prices/Indices</b>				
<b>Commodity/Indices</b>	<b>Jun-21</b>	<b>Jan-22</b>	<b>Dec-22</b>	<b>Jan-23</b>
<b>Energy</b>				
Crude Oil (US\$ per barrel)*	71.8	83.9	78.1	80.4
Energy Index (2010 = 100)	93.9	121.3	130.9	119.3
<b>Food</b>				
Rice (\$/MT)	466.0	427.0	467.0	517.0
Wheat (\$/MT)##	285.6	374.2	386.3	380.4
Sugar, World (\$/KG)	0.4	0.4	0.4	0.4
Palm Oil (\$/MT)	1,004.4	1,344.8	940.4	942.0
Soybean Oil (\$/MT)	1,518.2	1,469.6	1,409.2	1,351.8
<b>Non-Food Non-Energy</b>				
Cotton Outlook 'A' Index (\$/KG) #	2.1	2.9	2.2	2.2
Metal Price Index (2010 = 100)	119.0	133.2	114.8	121.0
Copper (\$/MT)	9,631.5	9,782.3	8,375.4	9,038.0
Aluminum (\$/MT)	2,446.7	3,006.0	2,401.7	2,501.8
Iron Ore (\$ cents/dry MT)	214.4	132.5	111.8	122.2
Tin (\$/MT)	32,502.6	41,791.7	24,172.4	28,154.1
Nickel (\$/MT)	17,979.6	22,355.4	28,946.8	28,194.6
Zinc (\$/MT)	2,951.9	3,599.1	3,129.5	3,309.8
Lead (\$/MT)	2,191.0	2,331.9	2,216.5	2,201.3
Uranium (\$/MT)@	32.3	43.1	47.7	50.6
DAP (\$/MT)	604.8	699.4	625.0	631.0
Urea (\$/MT)	393.3	846.4	519.4	443.8

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

@ Data has been taken from Cameco website, as it is not available in World Bank dataset.

\* 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 Jun 1968 to December 1981 strict middling 1-1/16 inch staple. Prior to 1968, Mexican 1-1/16.2/

## Wheat, US HRW (Hard Red Winter) reported by World Bank.

DAP: Di-ammonium Phosphate

**Table A23: National CPI Data Series Original and Seasonally Adjusted**

<b>Original Series</b>					
<b>Period</b>	<b>FY19</b>	<b>FY20</b>	<b>FY21</b>	<b>FY22</b>	<b>FY23</b>
Jul	114.29	123.86	135.38	146.76	183.35
Aug	113.93	125.89	136.23	147.61	187.84
Sep	113.90	126.86	138.32	150.74	185.68
Oct	116.32	129.16	140.67	153.61	194.42
Nov	116.18	130.90	141.83	158.18	195.89
Dec	115.82	130.45	140.86	158.16	196.86
Jan	116.12	133.04	140.56	158.78	202.53
Feb	117.12	131.64	143.09	160.61	
Mar	119.46	131.69	143.61	161.88	
Apr	120.33	130.59	145.09	164.50	
May	121.05	131.01	145.24	165.23	
Jun	121.63	132.08	144.82	175.71	
<b>Seasonally Adjusted Series</b>					
Jul	114.10	123.72	135.29	146.70	183.35
Aug	113.76	125.76	136.14	147.55	187.77
Sep	113.49	126.44	137.89	150.28	185.12
Oct	115.25	127.96	139.33	152.12	192.50
Nov	115.06	129.59	140.36	156.54	193.80
Dec	115.83	130.43	140.80	158.08	196.73
Jan	116.26	133.15	140.65	158.83	202.55
Feb	117.66	132.15	143.55	161.02	
Mar	120.11	132.35	144.28	162.61	
Apr	120.44	130.73	145.27	164.71	
May	121.82	131.88	146.25	166.40	
Jun	122.51	133.12	146.06	177.33	

<b>Table A24: Urban CPI Data Series Original and Seasonally Adjusted</b>					
<b>Original Series</b>					
<b>Period</b>	<b>FY19</b>	<b>FY20</b>	<b>FY21</b>	<b>FY22</b>	<b>FY23</b>
Jul	114.94	124.95	134.73	146.41	180.97
Aug	114.58	126.77	135.82	147.12	185.72
Sep	114.49	127.72	137.53	150.08	181.90
Oct	117.04	129.75	139.27	152.59	190.08
Nov	116.94	131.05	140.16	156.96	190.80
Dec	116.57	130.57	139.67	157.46	191.46
Jan	117.07	132.77	139.45	157.56	195.97
Feb	118.08	131.32	142.61	159.03	
Mar	120.29	131.49	142.99	160.07	
Apr	121.29	130.60	144.91	162.63	
May	122.11	130.99	145.19	163.13	
Jun	122.52	131.89	144.55	173.23	
<b>Seasonally Adjusted Series</b>					
Jul	114.54	124.57	134.38	146.07	180.61
Aug	114.24	126.43	135.49	146.78	185.27
Sep	114.16	127.39	137.20	149.73	181.49
Oct	116.27	128.91	138.38	151.62	188.89
Nov	116.15	130.16	139.22	155.92	189.54
Dec	116.94	130.99	140.12	157.99	192.13
Jan	117.21	132.90	139.54	157.62	196.00
Feb	118.60	131.77	143.00	159.37	
Mar	120.97	132.17	143.68	160.80	
Apr	121.15	130.44	144.73	162.41	
May	122.55	131.49	145.76	163.77	
Jun	123.19	132.68	145.49	174.46	

**Table A25: Rural CPI Data Series Original and Seasonally Adjusted**

<b>Original Series</b>					
<b>Period</b>	<b>FY19</b>	<b>FY20</b>	<b>FY21</b>	<b>FY22</b>	<b>FY23</b>
Jul	113.30	122.22	136.36	147.28	186.94
Aug	112.96	124.56	136.84	148.34	191.04
Sep	113.01	125.55	139.51	151.74	191.38
Oct	115.23	128.28	142.79	155.15	200.96
Nov	115.03	130.67	144.34	160.03	203.57
Dec	114.70	130.28	142.65	159.21	205.00
Jan	114.68	133.44	142.23	160.62	212.43
Feb	115.68	132.13	143.82	162.99	
Mar	118.21	132.00	144.55	164.62	
Apr	118.89	130.58	145.37	167.31	
May	119.45	131.03	145.32	168.39	
Jun	120.29	132.36	145.24	179.45	
<b>Seasonally Adjusted Series</b>					
Jul	113.42	122.42	136.65	147.66	187.48
Aug	113.05	124.75	137.12	148.70	191.55
Sep	112.49	125.01	138.93	151.11	190.59
Oct	113.71	126.51	140.76	152.88	197.96
Nov	113.40	128.72	142.10	157.47	200.23
Dec	114.14	129.57	141.81	158.22	203.68
Jan	114.81	133.54	142.31	160.67	212.45
Feb	116.26	132.71	144.37	163.53	
Mar	118.80	132.62	145.20	165.35	
Apr	119.36	131.16	146.08	168.18	
May	120.72	132.48	146.98	170.36	
Jun	121.49	133.79	146.92	181.65	

<b>Table A26: National CPI Monthly &amp; Average Seasonal Factors</b>						
<b>Period</b>	<b>FY19</b>	<b>FY20</b>	<b>FY21</b>	<b>FY22</b>	<b>FY23</b>	<b>Average</b>
Jul	100.16	100.12	100.07	100.04	100.00	100.08
Aug	100.15	100.10	100.07	100.04	100.04	100.08
Sep	100.36	100.33	100.31	100.30	100.30	100.32
Oct	100.93	100.94	100.96	100.98	101.00	100.96
Nov	100.98	101.01	101.04	101.05	101.08	101.03
Dec	99.99	100.02	100.05	100.05	100.07	100.04
Jan	99.88	99.91	99.94	99.97	99.99	99.94
Feb	99.54	99.62	99.68	99.74		99.64
Mar	99.46	99.50	99.53	99.55		99.51
Apr	99.91	99.89	99.88	99.87		99.89
May	99.37	99.34	99.31	99.30		99.33
Jun	99.28	99.22	99.15	99.09		99.18

<b>Table A27: Urban CPI Monthly &amp; Average Seasonal Factors</b>						
<b>Period</b>	<b>FY19</b>	<b>FY20</b>	<b>FY21</b>	<b>FY22</b>	<b>FY23</b>	<b>Average</b>
Jul	100.35	100.30	100.26	100.23	100.20	100.27
Aug	100.30	100.27	100.24	100.23	100.24	100.26
Sep	100.29	100.26	100.24	100.23	100.22	100.25
Oct	100.66	100.65	100.64	100.64	100.63	100.64
Nov	100.68	100.68	100.68	100.67	100.66	100.67
Dec	99.68	99.68	99.68	99.67	99.65	99.67
Jan	99.88	99.90	99.94	99.96	99.99	99.93
Feb	99.56	99.66	99.73	99.79		99.68
Mar	99.44	99.49	99.52	99.55		99.50
Apr	100.12	100.12	100.13	100.13		100.12
May	99.64	99.62	99.61	99.61		99.62
Jun	99.45	99.41	99.35	99.30		99.38

<b>Period</b>	<b>FY19</b>	<b>FY20</b>	<b>FY21</b>	<b>FY22</b>	<b>FY23</b>	<b>Average</b>
Jul	99.89	99.83	99.78	99.75	99.71	99.79
Aug	99.92	99.85	99.80	99.76	99.74	99.81
Sep	100.46	100.43	100.42	100.42	100.41	100.43
Oct	101.34	101.40	101.45	101.49	101.52	101.44
Nov	101.44	101.51	101.58	101.62	101.67	101.56
Dec	100.49	100.55	100.59	100.63	100.65	100.58
Jan	99.89	99.91	99.94	99.97	99.99	99.94
Feb	99.50	99.57	99.62	99.67		99.59
Mar	99.50	99.53	99.55	99.56		99.54
Apr	99.60	99.56	99.52	99.48		99.54
May	98.95	98.90	98.87	98.84		98.89
Jun	99.01	98.93	98.86	98.79		98.90

<b>Table A29: National CPI (Month-on-Month) Original &amp; Seasonally Adjusted</b>					
<b>Original Series</b>					
<b>Period</b>	<b>FY19</b>	<b>FY20</b>	<b>FY21</b>	<b>FY22</b>	<b>FY23</b>
Jul	1.51	1.83	2.50	1.34	4.35
Aug	-0.31	1.64	0.63	0.58	2.45
Sep	-0.03	0.77	1.53	2.12	-1.15
Oct	2.12	1.81	1.70	1.90	4.71
Nov	-0.12	1.35	0.82	2.98	0.76
Dec	-0.31	-0.34	-0.68	-0.01	0.50
Jan	0.26	1.99	-0.21	0.39	2.88
Feb	0.86	-1.05	1.80	1.15	
Mar	2.00	0.04	0.36	0.79	
Apr	0.73	-0.84	1.03	1.62	
May	0.60	0.32	0.10	0.44	
Jun	0.48	0.82	-0.29	6.34	
<b>Seasonally Adjusted Series</b>					
Jul	0.67	0.98	1.63	0.44	3.40
Aug	-0.29	1.65	0.63	0.58	2.41
Sep	-0.24	0.54	1.28	1.86	-1.41
Oct	1.55	1.20	1.04	1.22	3.99
Nov	-0.17	1.28	0.74	2.90	0.68
Dec	0.67	0.65	0.31	0.98	1.51
Jan	0.37	2.09	-0.11	0.48	2.96
Feb	1.21	-0.76	2.06	1.38	
Mar	2.08	0.15	0.51	0.98	
Apr	0.27	-1.22	0.68	1.29	
May	1.15	0.88	0.67	1.02	
Jun	0.57	0.94	-0.13	6.57	

<b>Table A30: Urban CPI (Month-on-Month) Original &amp; Seasonally Adjusted Series</b>					
<b>Original Series</b>					
<b>Period</b>	<b>FY19</b>	<b>FY20</b>	<b>FY21</b>	<b>FY22</b>	<b>FY23</b>
Jul	1.41	1.98	2.15	1.29	4.47
Aug	-0.31	1.46	0.81	0.48	2.62
Sep	-0.08	0.75	1.26	2.01	-2.06
Oct	2.23	1.59	1.27	1.67	4.50
Nov	-0.09	1.00	0.64	2.86	0.38
Dec	-0.32	-0.37	-0.35	0.32	0.35
Jan	0.43	1.68	-0.16	0.06	2.36
Feb	0.86	-1.09	2.27	0.93	
Mar	1.87	0.13	0.27	0.65	
Apr	0.83	-0.68	1.34	1.60	
May	0.68	0.30	0.19	0.31	
Jun	0.34	0.69	-0.44	6.19	
<b>Seasonally Adjusted Series</b>					
Jul	0.56	1.12	1.28	0.40	3.53
Aug	-0.27	1.49	0.83	0.49	2.58
Sep	-0.07	0.75	1.26	2.01	-2.04
Oct	1.85	1.20	0.86	1.26	4.07
Nov	-0.10	0.97	0.60	2.83	0.35
Dec	0.68	0.64	0.65	1.33	1.36
Jan	0.23	1.45	-0.42	-0.23	2.01
Feb	1.18	-0.85	2.48	1.11	
Mar	2.00	0.30	0.47	0.90	
Apr	0.15	-1.30	0.73	1.01	
May	1.16	0.80	0.71	0.84	
Jun	0.52	0.90	-0.19	6.52	

<b>Table A31: Rural CPI (Month-on-Month) Original &amp; Seasonally Adjusted Series</b>					
<b>Original Series</b>					
<b>Period</b>	<b>FY19</b>	<b>FY20</b>	<b>FY21</b>	<b>FY22</b>	<b>FY23</b>
Jul	1.67	1.60	3.02	1.40	4.17
Aug	-0.30	1.91	0.35	0.72	2.19
Sep	0.04	0.79	1.95	2.29	0.18
Oct	1.96	2.17	2.35	2.25	5.01
Nov	-0.17	1.86	1.09	3.15	1.30
Dec	-0.29	-0.30	-1.17	-0.51	0.70
Jan	-0.02	2.43	-0.29	0.89	3.62
Feb	0.87	-0.98	1.12	1.48	
Mar	2.19	-0.10	0.51	1.00	
Apr	0.58	-1.08	0.57	1.63	
May	0.47	0.34	-0.03	0.65	
Jun	0.70	1.02	-0.06	6.57	
<b>Seasonally Adjusted Series</b>					
Jul	0.85	0.77	2.14	0.50	3.21
Aug	-0.33	1.90	0.34	0.71	2.17
Sep	-0.49	0.21	1.32	1.62	-0.50
Oct	1.08	1.20	1.31	1.17	3.87
Nov	-0.27	1.75	0.95	3.01	1.15
Dec	0.66	0.66	-0.20	0.47	1.72
Jan	0.58	3.06	0.36	1.55	4.30
Feb	1.26	-0.62	1.44	1.78	
Mar	2.19	-0.06	0.58	1.11	
Apr	0.47	-1.10	0.60	1.71	
May	1.14	1.01	0.62	1.30	
Jun	0.64	0.99	-0.04	6.63	

**Figures**

**Figure A1: National CPI Inflation – Non Food Groups (YoY, 12MMA, MoM in percent) – January 2023**

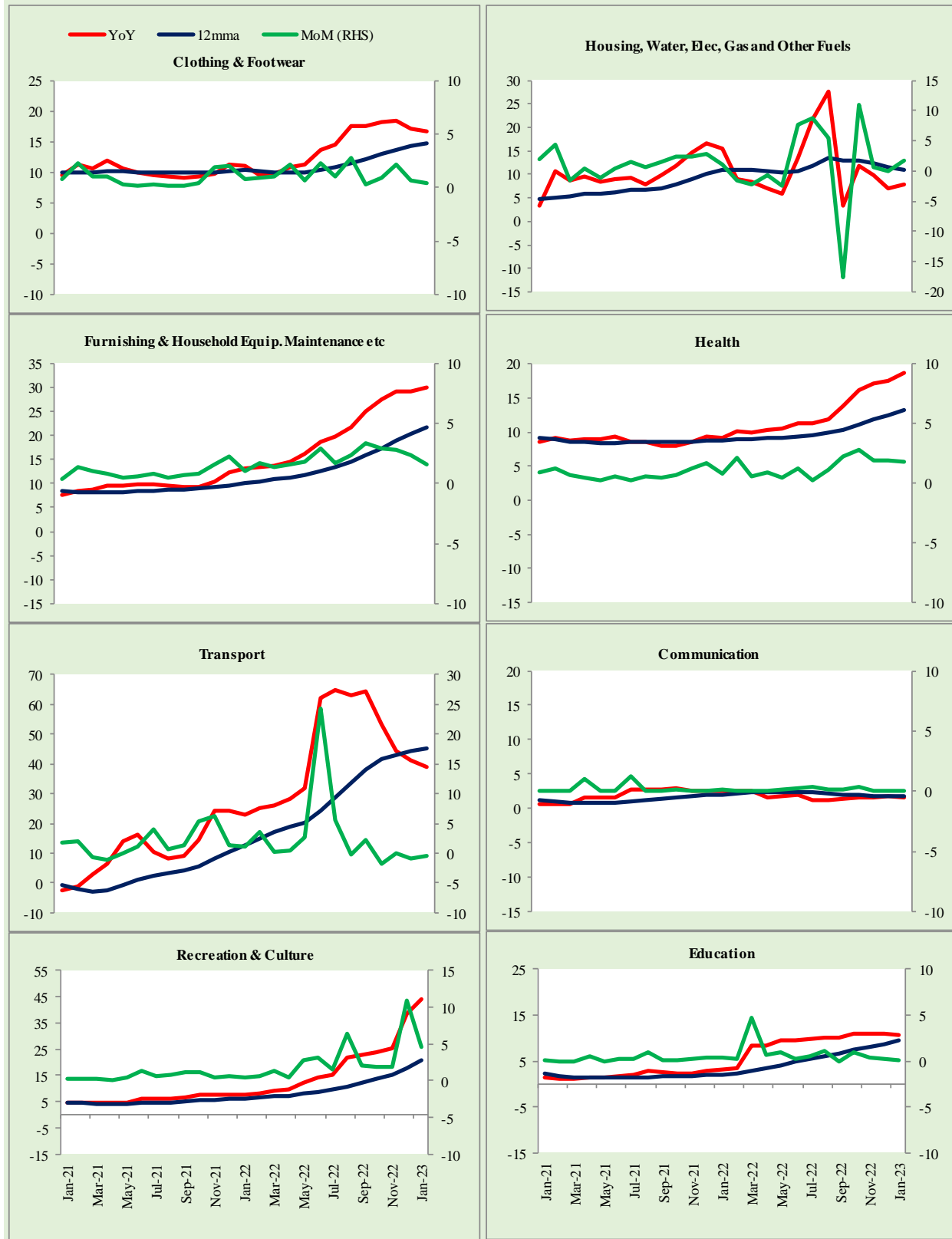


Figure A2: Urban CPI Inflation – Non Food Groups (YoY, 12MMA, MoM in percent) – January 2023

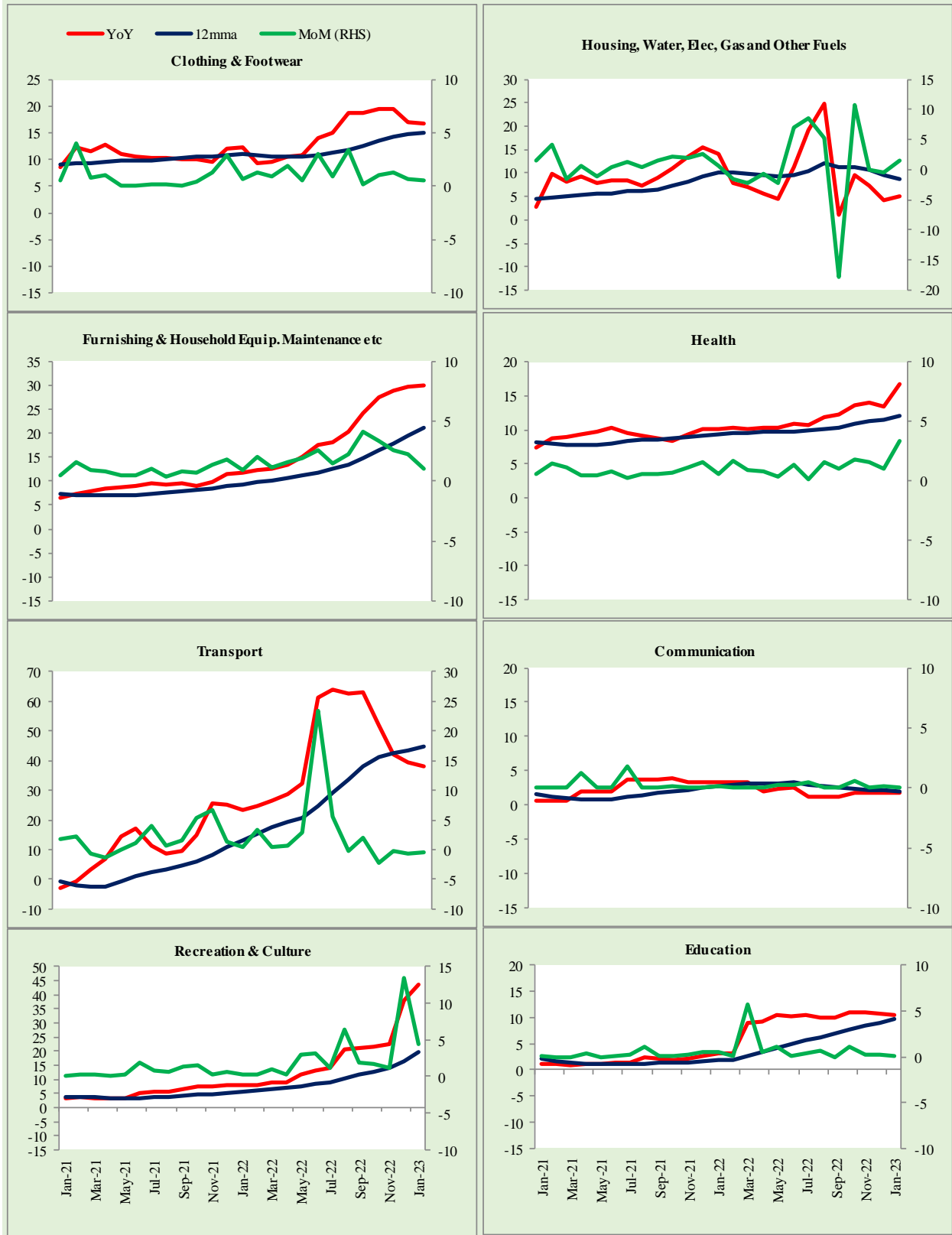


Figure A3: Rural CPI Inflation – Non Food Groups (YoY, 12MMA, MoM in percent) – January 2023

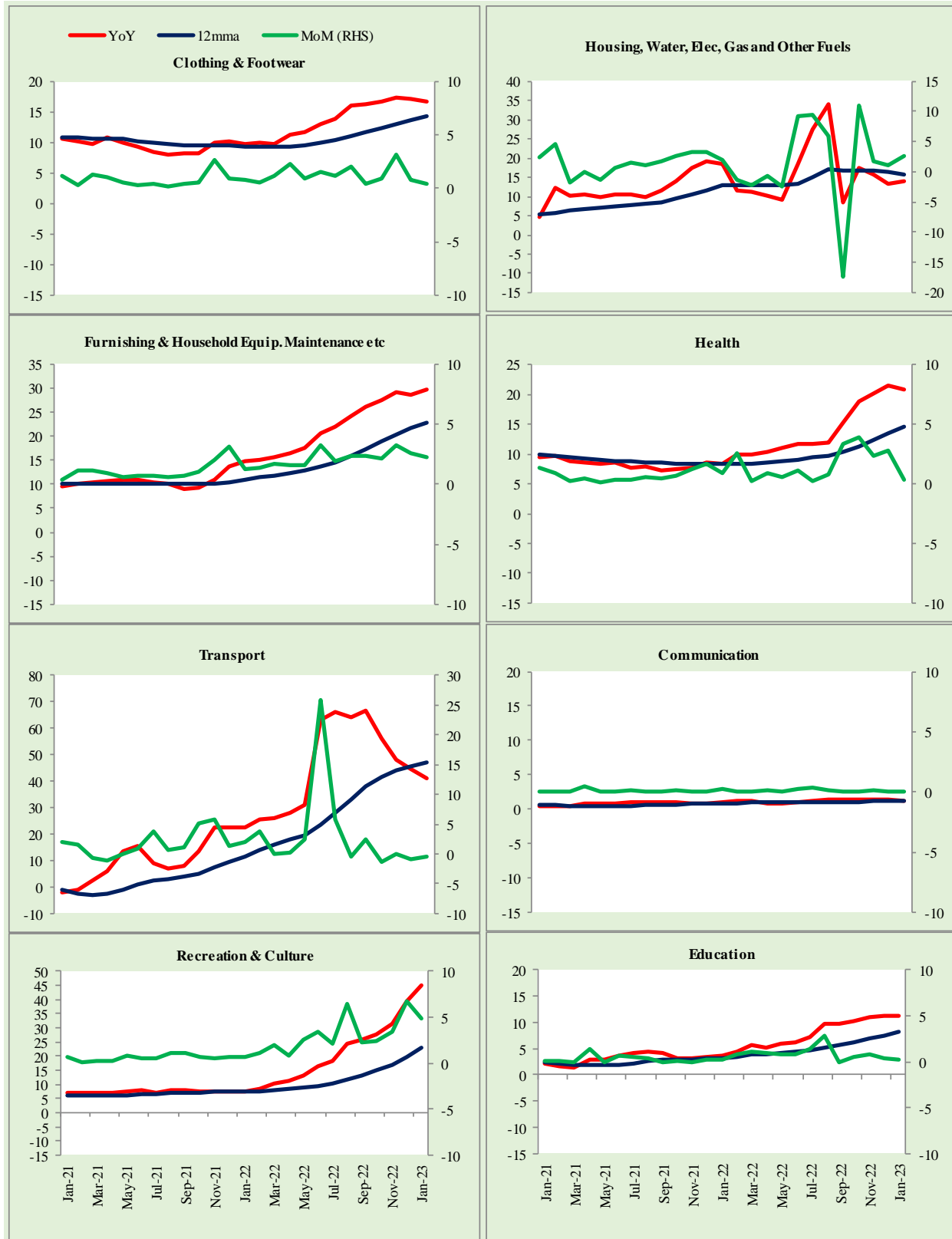
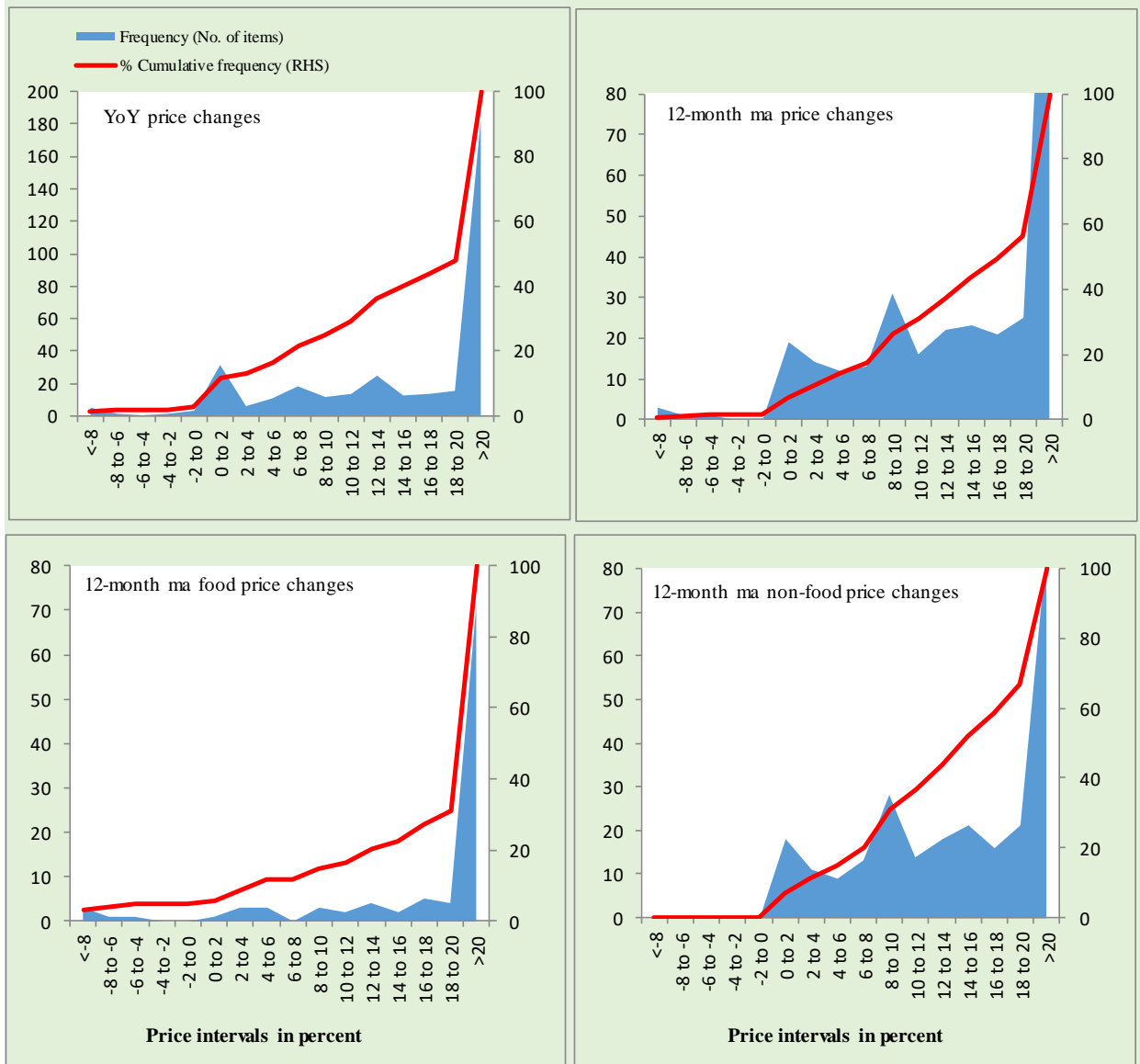
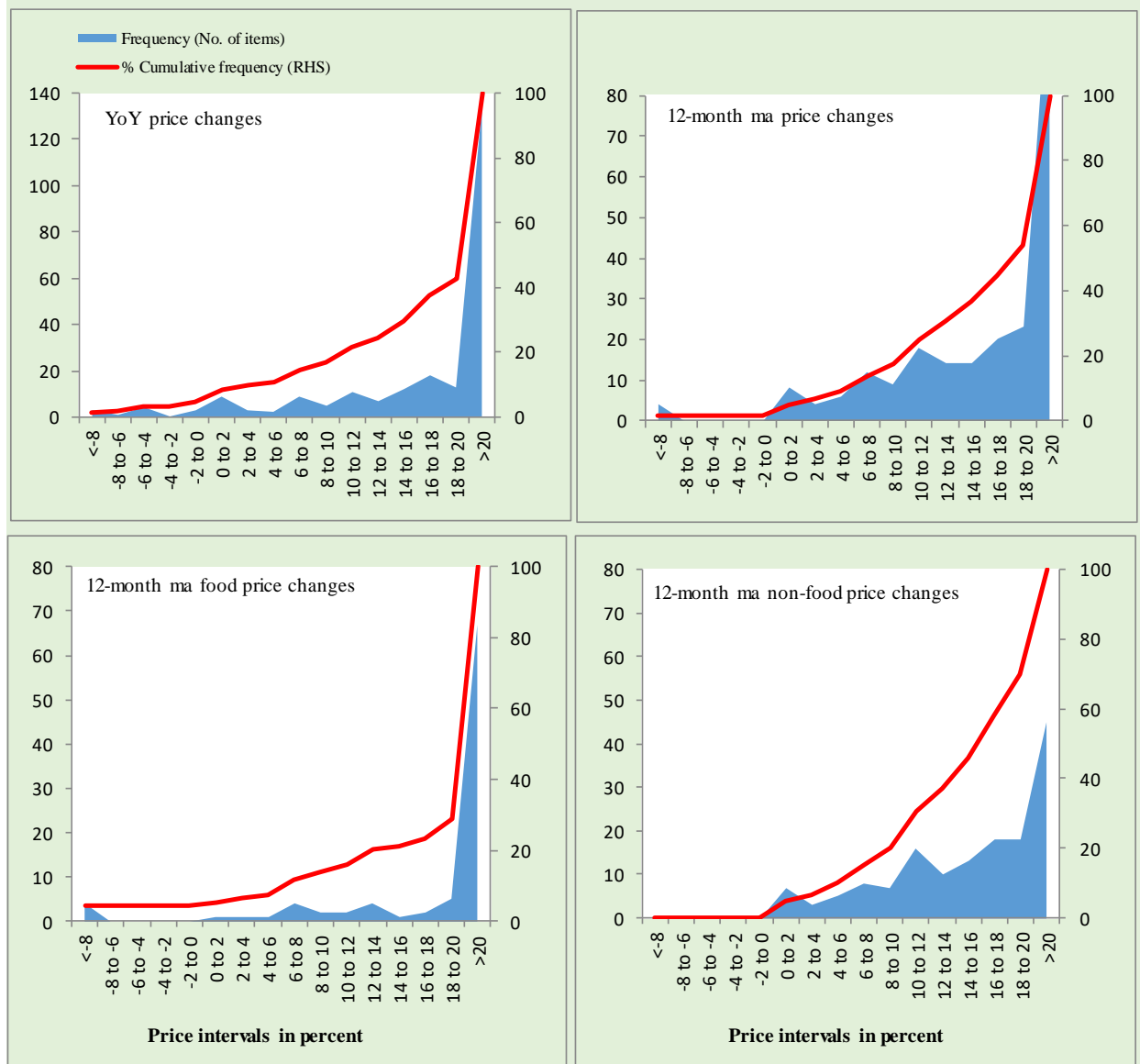


Figure A4: Frequency Distribution of Price Changes of Urban CPI Items (YoY) – January 2023



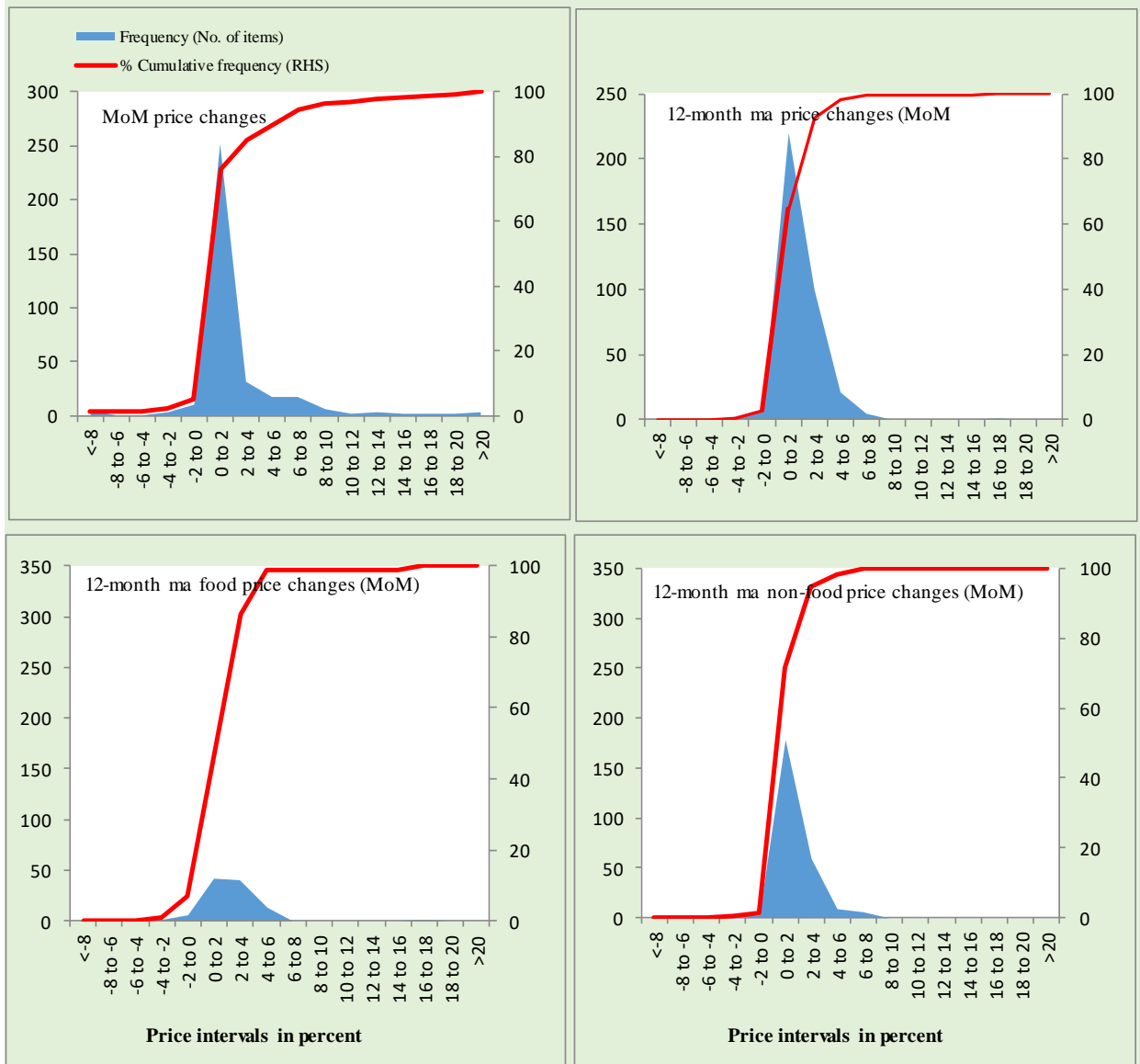
Total Items in CPI Basket (356), Food Items (103) and non-Food Items (253).

**Figure A5: Frequency Distribution of Price Changes of Rural CPI Items (YoY) – January 2023**



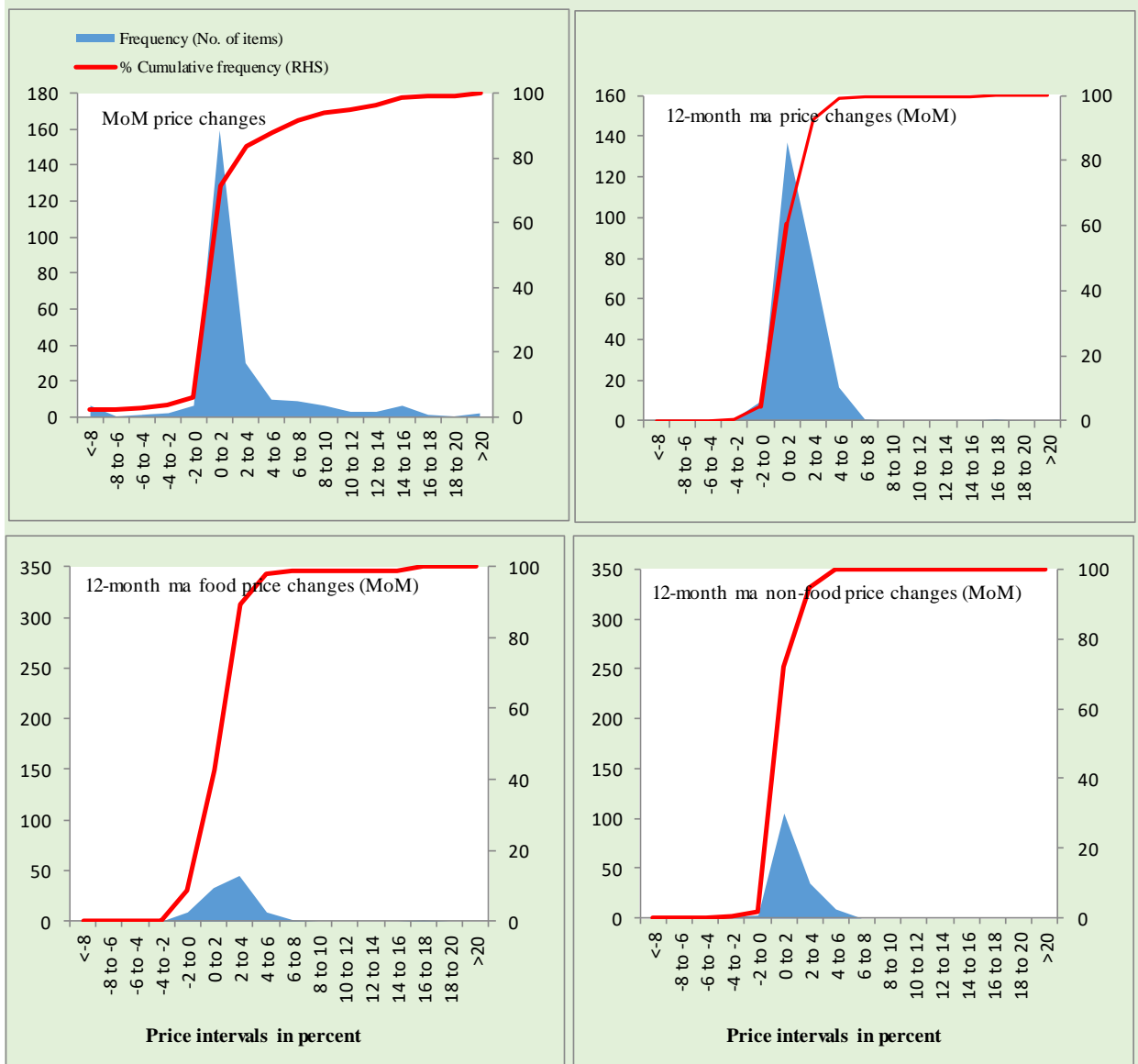
Total Items in CPI Basket (244), Food Items (94) and non-Food Items (150).

**Figure A6: Frequency Distribution of Price Changes of Urban CPI Items (MoM) – January 2023**



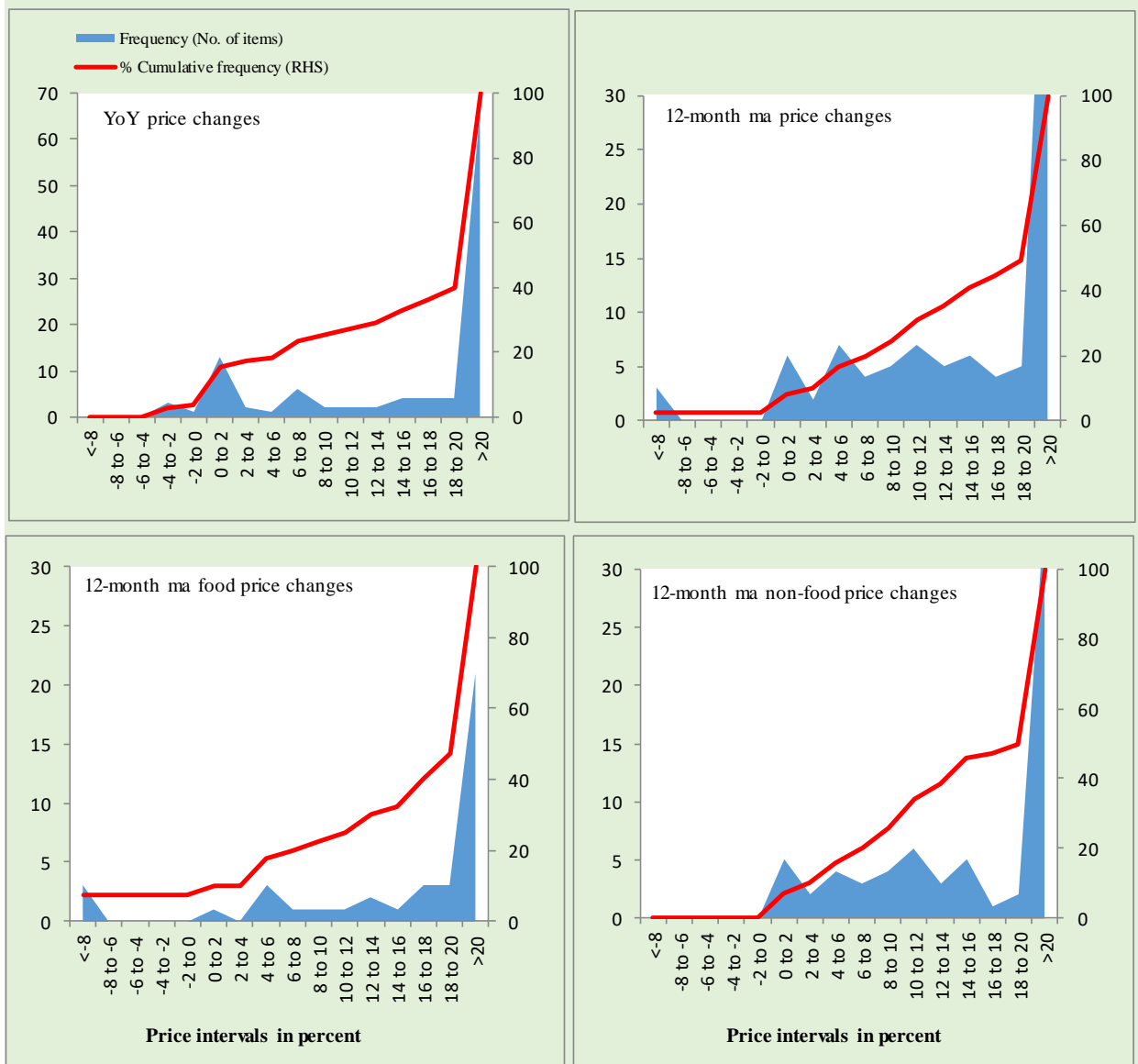
Total Items in CPI Basket (356), Food Items (103) and non-Food Items (253).

**Figure A7: Frequency Distribution of Price Changes of Rural CPI Items (MoM) – January 2023**



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) – January 2023



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

## Technical Notes

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

reference month

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

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

$\pi_t$  : Overall inflation

## Methodology for Estimating Inflation Diffusion Index for Pakistan

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

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

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

Based upon item level prices data from December 2001 to Jun 2011, inflation diffusion indices for overall (general) CPI basket and for all groups in CPI basket (except House Rent Index being single item) were computed. A simple analysis<sup>3</sup> suggests that IDI was a leading indicator for Pakistan’s YoY inflation.

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

<sup>3</sup> Formal test shows one way ‘Granger’ causality from IDI to YoY inflation.