

# Inflation Monitor

July 2022  
(Base Year: 2015-16)



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

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## 1. Inflation in Brief

1. National CPI Inflation on year-on-year (YoY) basis increased to 24.9 percent in July 2022 from 21.3 percent in previous month. It stood at 8.4 percent in the corresponding month of last year. However, on month-on-month (MoM) basis, National CPI Inflation decreased to 4.4 percent in July 2022 from 6.3 percent in previous month. It stood at 1.3 percent during corresponding month of last year.
2. Urban CPI Inflation (on YOY basis) increased to 23.6 percent in July 2022 from 19.8 percent in previous month. It stood at 8.7 percent during the corresponding month of last year. Urban CPI Inflation (on MoM basis) decreased to 4.5 percent in July 2022 from 6.2 percent in previous month. It stood at 1.3 percent during corresponding month of last year. Seasonally adjusted MoM CPI Inflation recorded at 3.6 percent in July 2022 compared to 6.7 percent in the previous month.
3. Rural CPI Inflation (on YoY basis) increased to 26.9 percent in July 2022 from 23.6 percent in previous month. It was recorded 8.0 percent during the corresponding month of last year. Rural CPI Inflation (on MoM basis) decreased to 4.2 percent in July 2022 from 6.6 percent in the previous month. Seasonally adjusted (MoM) CPI Inflation recorded at 2.7 percent in July 2022 compared to 6.7 percent in previous month.
4. Urban Core Inflation (trimmed) on YoY basis increased to 19.1 percent in July 2022 from 16.7 percent in previous month. It stood at 9.0 percent during the corresponding month of last year. On MoM basis, Urban Core Inflation (trimmed) decreased to 2.7 percent in July 2022 from 3.5 percent in previous month. It stood at 0.8 percent during the corresponding month of last year.
5. Rural Core Inflation (trimmed) on YoY basis increased to 21.7 percent in July 2022 from 19.1 percent in previous month. It was recorded 8.4 percent during the corresponding month of last year. On MoM basis, Rural Core Inflation (trimmed) decreased to 2.7 percent in July 2022 from 4.3 percent in previous month. It stood at 0.8 percent during corresponding month of last year.
6. Urban Core (Non-food, Non-energy (NFNE)) Inflation on YoY basis increased to 12.0 percent in July 2022 from 11.5 percent in previous month. It stood at 6.9 percent during corresponding month of last year. On MoM basis, Urban Core (NFNE) Inflation decreased to 1.2 percent in July 2022 from 2.0 percent in previous month. It stood at 0.8 percent during the corresponding month of last year.
7. Rural Core (Non-food, Non-energy (NFNE)) Inflation on YOY basis increased to 14.6 percent in July 2022 from 13.6 percent in previous month. It stood at 6.9 percent during the corresponding month of last year. On MoM basis, it decreased to 1.6 percent in July 2022 from 2.3 percent in previous month. It was recorded 0.7 percent during the corresponding month of last year.
8. WPI Inflation on YoY basis decreased to 38.5 percent in July 2022 from 38.9 percent in previous month. It stood at 17.3 percent during the corresponding month of last year. On MoM basis, it decreased to 2.0 percent in July 2022 from 8.2 percent in previous month. It was recorded 2.3 percent during the corresponding month of last year.

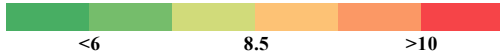
9. SPI Inflation on YoY basis increased to 34.3 percent in July 2022 from 26.5 percent in previous month. During corresponding month of last year, SPI Inflation stood at 12.6 percent. On MoM basis, SPI Inflation decreased to 7.7 percent in July 2022 from 8.1 percent in previous month. It stood at 1.4 percent 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 time span of last thirteen months is presented. The observed inflation is compared with the benchmark of inflation target of 8.0 percent for FY22. Green areas indicate low inflation pressures whereas red areas indicate higher inflationary pressures.

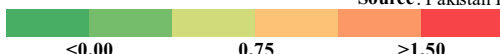
Heat-map of National, Urban and Rural CPI inflation (YoY)														
		Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22
Headline	National	8.4	8.4	9.0	9.2	11.5	12.3	13.0	12.2	12.7	13.4	13.8	21.3	24.9
	Urban	8.7	8.3	9.1	9.6	12.0	12.7	13.0	11.5	11.9	12.2	12.4	19.8	23.6
	Rural	8.0	8.4	8.8	8.7	10.9	11.6	12.9	13.3	13.9	15.1	15.9	23.6	26.9
Food	Urban	9.4	10.2	10.8	9.4	11.9	11.7	13.3	14.3	14.5	15.6	15.5	24.0	27.4
	Rural	7.3	9.1	9.1	7.2	8.6	9.0	11.8	14.6	15.5	17.7	19.0	27.0	29.6
Core	Urban	6.9	6.3	6.4	6.7	7.6	8.3	8.2	7.8	8.9	9.1	9.7	11.5	12.0
	Rural	6.9	6.2	6.2	6.7	8.2	8.9	9.0	9.4	10.3	10.9	11.5	13.6	14.6

Source: Pakistan Bureau of Statistics and SBP staff estimates

Key  <6 8.5 >10

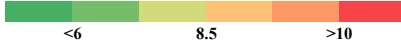
Heat-map of National, Urban and Rural CPI inflation (MoM)														
		Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22
Headline	National	1.3	0.6	2.1	1.9	3.0	0.0	0.4	1.20	0.8	1.6	0.4	6.3	4.4
	Urban	1.3	0.5	2.0	1.7	2.9	0.3	0.1	0.9	0.7	1.6	0.3	6.2	4.5
	Rural	1.40	0.7	2.3	2.2	3.1	-0.5	0.9	1.5	1.0	1.6	0.6	6.6	4.2
Food	Urban	1.5	0.5	3.6	1.5	3.9	-2.3	-0.8	2.2	1.8	3.7	1.0	5.3	4.3
	Rural	1.6	0.8	3.7	2.6	3.3	-3.1	0.4	2.6	2.3	2.8	1.3	6.0	3.7
Core	Urban	0.8	0.2	0.4	0.9	1.1	1.1	0.8	0.8	1.2	1.1	0.7	2.0	1.2
	Rural	0.7	0.2	0.5	1.0	1.8	1.1	1.2	0.9	1.1	1.2	0.9	2.3	1.6

Source: Pakistan Bureau of Statistics and SBP staff estimates

Key  <0.00 0.75 >1.50

Heat-map of National CPI inflation (YoY)															
	Weights	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	
General	100.00	8.4	8.4	9.0	9.2	11.5	12.3	13.0	12.2	12.7	13.4	13.8	21.3	24.9	
Food and Non-Alcoholic Beverages	34.58	8.2	10.0	10.2	8.3	10.5	10.3	12.8	14.7	15.3	17.0	17.3	25.9	28.8	
Alcoholic Beverages, Tobacco	1.02	3.1	2.1	2.0	1.9	1.8	2.0	2.0	2.1	1.8	5.1	10.1	17.6	22.5	
Clothing and Footwear	8.60	9.5	9.3	9.2	9.3	9.8	11.2	11.2	9.7	9.7	10.8	11.3	13.7	14.6	
Housing, Water, Elec., Gas and Other Fuels	23.63	9.2	8.0	9.8	12.0	14.8	16.6	15.5	9.0	8.3	7.1	5.8	13.5	21.8	
Furnishing and Household Equipment Maintenance	4.10	9.8	9.6	9.3	9.2	10.4	12.3	13.0	13.4	13.8	14.7	16.1	18.8	19.7	
Health	2.79	8.6	8.5	8.0	8.0	8.5	9.4	9.2	10.1	10.0	10.4	10.6	11.3	11.2	
Transport	5.91	10.5	8.1	9.1	14.4	24.4	24.1	23.1	25.0	26.3	28.3	31.8	62.2	64.7	
Communication	2.21	2.8	2.8	2.8	2.8	2.5	2.5	2.6	2.5	2.6	1.6	1.8	2.0	1.2	
Recreation and Culture	1.59	5.9	6.4	6.9	7.5	7.5	7.7	7.8	8.2	9.3	9.7	12.3	14.4	15.4	
Education	3.79	2.0	2.9	2.6	2.2	2.4	2.8	3.2	3.4	8.3	8.4	9.5	9.5	9.8	
Restaurants and Hotels	6.92	8.5	7.3	7.8	8.3	11.0	12.6	13.0	14.4	14.6	14.6	16.0	21.9	25.0	
Misc. Goods and Services	4.87	9.4	5.9	7.4	8.7	10.0	10.6	10.3	10.1	12.4	12.8	13.3	15.8	17.2	

Source: Pakistan Bureau of Statistics and SBP staff estimates

Key  <6 8.5 >10



Heat-map of Urban CPI inflation (YoY)														
	Weights	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22
General	100.00	8.7	8.3	9.1	9.6	12.0	12.7	13.0	11.5	11.9	12.2	12.4	19.8	23.6
Food and Non-Alcoholic Beverages	30.42	9.2	10.6	11.1	9.4	12.2	11.7	13.6	14.5	14.8	16.0	15.8	24.6	27.8
Alcoholic Beverages, Tobacco	0.85	3.8	2.8	2.6	2.1	1.9	2.1	2.0	2.0	1.5	4.8	9.4	18.3	21.7
Clothing and Footwear	8.01	10.4	10.3	10.0	10.2	9.5	12.2	12.4	9.4	9.6	10.5	11.0	14.2	15.0
Housing, Water, Elec., Gas and Other Fuels	27.03	8.5	7.2	8.9	11.1	13.6	15.4	14.2	7.8	7.1	5.6	4.4	11.3	19.2
Furnishing and Household Equipment Maintenance	4.09	9.5	9.4	9.5	9.1	10.0	11.4	11.9	12.4	12.6	13.5	15.2	17.6	18.2
Health	2.31	9.5	9.1	8.7	8.4	9.3	10.1	10.0	10.2	10.0	10.3	10.3	10.9	10.8
Transport	6.14	11.4	8.8	9.7	15.0	25.7	25.0	23.4	24.8	26.3	28.6	32.2	61.5	63.8
Communication	2.35	3.8	3.8	3.8	3.8	3.4	3.3	3.4	3.3	3.3	2.0	2.3	2.5	1.1
Recreation and Culture	1.73	5.4	5.5	6.3	7.6	7.5	7.9	8.1	8.0	8.7	8.9	11.9	13.3	13.9
Education	4.88	1.5	2.5	2.3	1.9	2.2	2.6	3.0	3.2	9.0	9.2	10.4	10.4	10.5
Restaurants and Hotels	7.41	9.5	7.6	8.5	8.6	11.4	13.2	13.2	15.0	14.5	14.5	14.5	21.2	24.7
Misc. Goods and Services	4.77	9.3	6.1	8.0	9.3	10.1	10.4	10.1	9.6	11.9	12.0	12.2	15.1	16.8

Source: Pakistan Bureau of Statistics and SBP staff estimates

Heat-map of Rural CPI inflation (YoY)														
	Weights	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22
General	100.00	8.0	8.4	8.8	8.7	10.9	11.6	12.9	13.3	13.9	15.1	15.9	23.6	26.9
Food and Non-Alcoholic Beverages	40.87	7.2	9.3	9.3	7.1	8.7	8.9	12.0	15.0	15.9	18.2	19.0	27.4	29.9
Alcoholic Beverages, Tobacco	1.28	2.4	1.4	1.3	1.6	1.7	1.9	2.0	2.3	2.3	5.5	11.0	16.9	23.4
Clothing and Footwear	9.48	8.4	8.1	8.2	8.2	10.1	10.1	9.7	10.0	9.8	11.3	11.7	13.1	14.0
Housing, Water, Elec., Gas and Other Fuels	18.49	10.6	9.7	11.6	14.0	17.5	19.2	18.5	11.6	11.1	10.3	9.1	18.4	27.6
Furnishing and Household Equipment Maintenance	4.10	10.3	10.0	8.9	9.3	11.0	13.7	14.8	15.0	15.6	16.4	17.5	20.5	22.0
Health	3.51	7.7	7.8	7.3	7.5	7.8	8.7	8.3	10.0	10.0	10.4	10.9	11.8	11.7
Transport	5.56	9.0	6.9	8.2	13.4	22.3	22.5	22.5	25.4	26.2	27.9	31.0	63.4	66.3
Communication	1.99	1.0	1.0	0.9	1.0	0.8	0.9	1.1	1.1	1.1	0.8	0.8	1.0	1.2
Recreation and Culture	1.38	6.9	8.0	7.9	7.3	7.5	7.3	7.4	8.5	10.5	11.0	13.0	16.3	18.2
Education	2.13	4.1	4.5	4.1	3.2	3.2	3.5	3.7	4.4	5.6	5.1	6.0	6.2	7.2
Restaurants and Hotels	6.19	6.8	6.9	6.6	7.6	10.3	11.5	12.6	13.3	14.6	14.7	18.5	23.0	25.4
Misc. Goods and Services	5.02	9.5	5.7	6.5	7.9	9.7	10.7	10.8	10.7	13.1	13.9	14.9	16.8	17.7

Source: Pakistan Bureau of Statistics and SBP staff estimates

Heat-map of National CPI inflation (MoM)														
	Weights	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22
General	100.00	1.3	0.6	2.1	1.9	3.0	0.0	0.4	1.2	0.8	1.6	0.4	6.3	4.4
Food and Non-Alcoholic Beverages	34.58	1.8	0.7	4.0	2.1	3.9	-3.4	-0.5	2.5	2.3	3.7	0.9	5.5	4.1
Alcoholic Beverages, Tobacco	1.02	-0.1	0.0	0.4	0.4	0.2	0.3	0.1	0.3	0.0	3.1	4.9	7.0	4.1
Clothing and Footwear	8.60	0.3	0.1	0.2	0.5	1.9	2.0	0.8	1.0	1.0	2.1	0.7	2.3	1.1
Housing, Water, Elec., Gas and Other Fuels	23.63	1.4	0.7	1.6	2.4	2.4	2.8	1.0	-1.6	-2.2	-0.7	-2.3	7.7	8.8
Furnishing and Household Equipment Maintenance	4.10	0.9	0.5	0.8	0.8	1.6	2.3	1.1	1.8	1.4	1.6	1.8	2.9	1.7
Health	2.79	0.3	0.6	0.5	0.7	1.2	1.6	0.7	2.1	0.6	0.9	0.5	1.2	0.2
Transport	5.91	4.0	0.7	1.3	5.3	6.3	1.3	1.0	3.6	0.3	0.4	2.7	24.4	5.7
Communication	2.21	1.2	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.2	0.4
Recreation and Culture	1.59	0.6	0.8	1.2	1.2	0.4	0.6	0.4	0.5	1.3	0.4	2.8	3.2	1.6
Education	3.79	0.2	0.9	0.0	0.1	0.2	0.4	0.4	0.3	4.7	0.6	1.0	0.3	0.5
Restaurants and Hotels	6.92	0.3	0.3	1.1	1.3	3.5	2.1	1.0	1.7	0.9	0.2	1.8	5.8	2.9
Misc. Goods and Services	4.87	0.5	0.3	1.4	1.3	1.8	0.7	0.8	1.1	1.6	0.8	1.2	3.3	1.6

Source: Pakistan Bureau of Statistics and SBP staff estimates

Heat-map of Urban CPI inflation (MoM)														
	Weights	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22
General	100.00	1.3	0.5	2.0	1.7	2.9	0.3	0.1	0.9	0.7	1.6	0.3	6.2	4.5
Food and Non-Alcoholic Beverages	30.42	1.7	0.6	4.0	1.6	4.3	-3.0	-1.1	2.3	2.1	4.3	0.9	5.0	4.3
Alcoholic Beverages, Tobacco	0.85	0.0	0.0	0.2	0.2	0.3	0.1	0.0	0.2	0.1	3.3	4.6	8.2	2.9
Clothing and Footwear	8.01	0.2	0.1	0.1	0.4	1.3	2.9	0.7	1.3	0.9	2.0	0.5	3.0	1.0
Housing, Water, Elec., Gas and Other Fuels	27.03	1.4	0.5	1.6	2.3	2.0	2.6	0.6	-1.6	-2.2	-0.6	-2.3	7.0	8.6
Furnishing and Household Equipment Maintenance	4.09	1.0	0.4	0.8	0.7	1.4	1.8	0.9	2.0	1.1	1.6	2.0	2.6	1.5
Health	2.31	0.2	0.6	0.6	0.6	1.1	1.6	0.5	1.6	0.9	0.8	0.4	1.4	0.1
Transport	6.14	4.1	0.7	1.5	5.3	6.6	1.3	0.4	3.4	0.5	0.6	2.9	23.5	5.6
Communication	2.35	1.8	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.2	0.4
Recreation and Culture	1.73	0.7	0.6	1.3	1.5	0.3	0.5	0.3	0.2	0.9	0.2	3.0	3.1	1.2
Education	4.88	0.2	1.1	0.0	0.2	0.2	0.5	0.5	0.1	5.7	0.6	1.1	0.1	0.3
Restaurants and Hotels	7.41	0.4	0.1	1.4	1.0	3.5	2.3	0.6	2.0	0.7	0.2	0.6	6.6	3.3
Misc. Goods and Services	4.77	0.0	0.5	1.4	1.0	1.7	0.6	0.7	1.2	1.8	0.7	1.1	3.7	1.4

Source: Pakistan Bureau of Statistics and SBP staff estimates

Heat-map of Rural CPI inflation (MoM)														
	Weights	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22
General	100.00	1.4	0.7	2.3	2.2	3.1	-0.5	0.9	1.5	1.0	1.6	0.6	6.6	4.2
Food and Non-Alcoholic Beverages	40.87	1.8	0.9	4.1	2.7	3.6	-3.7	0.2	2.8	2.5	3.1	0.8	6.1	3.8
Alcoholic Beverages, Tobacco	1.28	-0.1	0.0	0.6	0.5	0.1	0.5	0.3	0.3	0.0	2.8	5.3	5.6	5.5
Clothing and Footwear	9.48	0.4	0.1	0.4	0.6	2.6	0.9	0.8	0.6	1.1	2.3	0.9	1.6	1.2
Housing, Water, Elec., Gas and Other Fuels	18.49	1.5	1.0	1.7	2.7	3.3	3.2	1.9	-1.4	-2.3	-0.8	-2.5	9.2	9.4
Furnishing and Household Equipment Maintenance	4.10	0.7	0.6	0.7	1.0	2.0	3.1	1.3	1.3	1.7	1.6	1.5	3.3	2.0
Health	3.51	0.3	0.5	0.4	0.7	1.3	1.7	0.9	2.5	0.2	0.9	0.6	1.1	0.3
Transport	5.56	3.9	0.8	1.0	5.2	5.8	1.3	2.0	3.9	0.0	0.2	2.5	25.9	5.7
Communication	1.99	0.2	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.1	0.1	0.0	0.2	0.4
Recreation and Culture	1.38	0.5	1.2	1.1	0.7	0.5	0.6	0.7	1.2	2.0	0.8	2.5	3.4	2.2
Education	2.13	0.5	0.4	0.0	0.1	0.0	0.3	0.2	0.8	1.1	1.0	0.8	0.9	1.4
Restaurants and Hotels	6.19	0.3	0.7	0.6	1.9	3.5	1.6	1.6	1.0	1.2	0.3	3.9	4.4	2.2
Misc. Goods and Services	5.02	1.2	0.1	1.3	1.9	2.0	0.9	1.0	0.8	1.4	1.0	1.3	2.8	2.0

Source: Pakistan Bureau of Statistics and SBP staff estimates

<0.00      0.75      >1.50

Heat-map of Rural CPI inflation (YoY)														
	Weights	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22
Rural	100.00	8.0	8.4	8.8	8.7	10.9	11.6	12.9	13.3	13.9	15.1	15.9	23.6	26.9
Food	45.95	7.3	9.1	9.1	7.2	8.6	9.0	11.8	14.6	15.5	17.7	19.0	27.0	29.6
Non-perishable	40.16	10.3	9.9	12.3	11.2	11.7	12.8	12.8	12.4	13.7	15.8	17.0	25.5	29.3
Perishable	5.79	-9.7	5.4	-6.8	-12.5	-5.5	-12.0	6.6	35.8	32.8	34.4	33.7	41.2	33.5
Non Food	54.05	8.7	7.7	8.5	10.0	13.0	14.0	13.9	12.2	12.5	12.8	13.1	20.4	24.5
Energy	11.41	15.7	13.8	17.2	23.2	32.0	34.0	32.7	21.9	20.4	19.8	19.3	46.6	61.2
NFNE (Core)	42.64	6.9	6.2	6.2	6.7	8.2	8.9	9.0	9.4	10.3	10.9	11.5	13.6	14.6
HRI	8.61	6.1	6.1	6.1	6.6	6.6	6.6	5.9	5.9	5.9	5.7	5.7	5.7	5.9
Core Excl HRI	34.03	7.1	6.3	6.3	6.7	8.6	9.5	9.7	10.3	11.4	12.2	12.9	15.5	16.8

Source: Pakistan Bureau of Statistics and SBP staff estimates

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Heat-map of Urban CPI inflation (YoY)														
	Weights	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22
Urban	100.00	8.7	8.3	9.1	9.6	12.0	12.7	13.0	11.5	11.9	12.2	12.4	19.8	23.6
Food	36.80	9.4	10.2	10.8	9.4	11.9	11.7	13.3	14.3	14.5	15.6	15.5	24.0	27.4
Non-perishable	32.34	12.7	12.2	15.3	13.2	15.3	15.5	14.7	11.8	13.0	14.4	15.0	23.5	27.1
Perishable	4.46	-8.7	1.7	-9.6	-8.9	-1.9	-8.7	6.3	34.1	28.0	25.6	20.6	32.4	32.4
Non Food	63.20	8.2	7.2	8.1	9.7	12.0	13.4	12.8	9.9	10.4	10.2	10.4	17.3	21.3
Energy	9.47	16.1	12.2	17.8	25.9	37.2	41.3	38.1	20.2	18.0	15.7	14.1	48.8	70.2
NFNE (Core)	53.73	6.9	6.3	6.4	6.7	7.6	8.3	8.2	7.8	8.9	9.1	9.7	11.5	12.0
HRI	19.26	6.1	6.1	6.1	6.6	6.6	6.6	6.1	6.1	6.1	5.6	5.6	5.6	5.6
Core Excl HRI	34.47	7.3	6.4	6.5	6.8	8.1	9.2	9.3	8.7	10.5	11.0	11.9	14.7	15.5

Source: Pakistan Bureau of Statistics and SBP staff estimates

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Heat-map of Rural CPI inflation (MoM)														
	Weights	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22
Rural	100.00	1.4	0.7	2.3	2.2	3.1	-0.5	0.9	1.5	1.0	1.6	0.6	6.6	4.2
Food	45.95	1.6	0.8	3.7	2.6	3.3	-3.1	0.4	2.6	2.3	2.8	1.3	6.0	3.7
Non-perishable	40.16	0.4	0.5	4.1	2.0	1.8	-0.4	1.0	1.4	2.8	0.6	2.8	6.2	3.5
Perishable	5.79	12.1	3.3	4.3	7.1	14.5	-21.8	-5.1	13.3	0.5	20.0	-10.7	5.2	6.0
Non Food	54.05	1.2	0.6	1.0	1.9	3.0	1.9	1.4	0.4	-0.2	0.5	0.0	7.1	4.6
Energy	11.41	3.1	2.2	2.9	5.2	7.0	4.4	1.9	-0.9	-4.0	-1.8	-2.8	24.3	13.4
NFNE (Core)	42.64	0.7	0.2	0.5	1.0	1.8	1.1	1.2	0.9	1.1	1.2	0.9	2.3	1.6
HRI	8.61	1.2	0.0	0.0	1.3	0.0	0.0	2.1	0.0	0.0	1.0	0.0	0.0	1.4
Core Excl HRI	34.03	0.6	0.2	0.6	1.0	2.2	1.4	1.0	1.1	1.3	1.3	1.0	2.9	1.7

Source: Pakistan Bureau of Statistics and SBP staff estimates

<0.00      0.75      >1.50

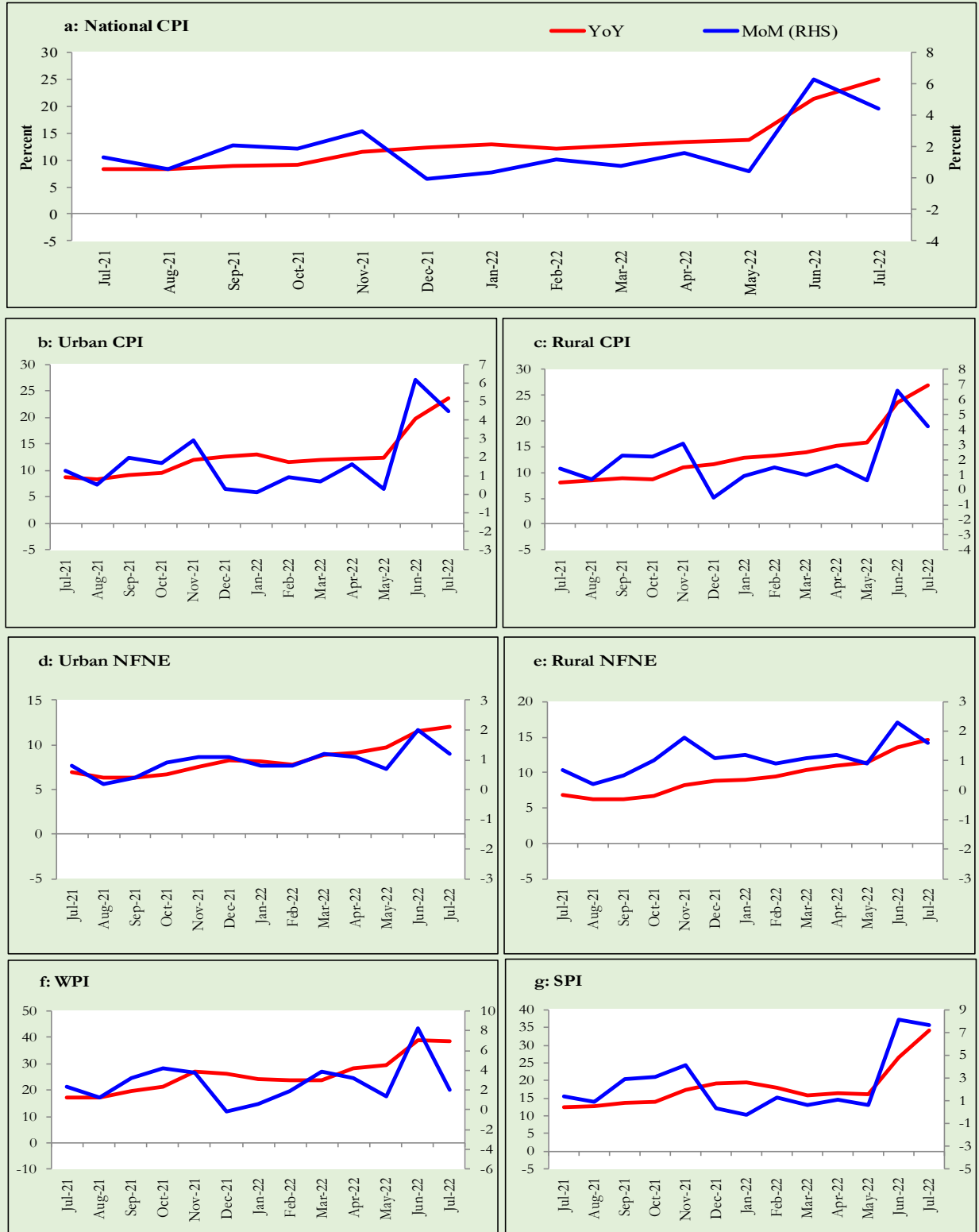
Heat-map of Urban CPI inflation (MoM)														
	Weights	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22
Urban	100.00	1.3	0.5	2.0	1.7	2.9	0.3	0.1	0.9	0.7	1.6	0.3	6.2	4.5
Food	36.80	1.5	0.5	3.6	1.5	3.9	-2.3	-0.8	2.2	1.8	3.7	1.0	5.3	4.3
<i>Non-perishable</i>	32.34	0.8	0.3	4.2	1.0	2.4	0.2	-0.4	0.5	2.6	1.7	3.1	4.9	3.8
<i>Perishable</i>	4.46	7.3	2.0	2.6	5.2	15.1	-20.2	-5.4	14.7	-1.1	20.8	-10.8	5.5	7.3
Non Food	63.20	1.1	0.5	1.1	1.8	2.2	2.0	0.6	0.2	-0.1	0.3	-0.1	6.8	4.6
<i>Energy</i>	9.47	3.5	2.1	4.6	6.0	7.6	5.8	-0.4	-2.3	-5.9	-3.4	-4.6	32.2	18.3
<i>NFNE (Core)</i>	53.73	0.8	0.2	0.4	0.9	1.1	1.1	0.8	0.8	1.2	1.1	0.7	2.0	1.2
<i>HRI</i>	19.26	1.4	0.0	0.0	1.4	0.0	0.0	1.5	0.0	0.0	1.1	0.0	0.0	1.5
<i>Core Excl HRI</i>	34.47	0.4	0.3	0.6	0.6	1.7	1.7	0.4	1.1	1.9	1.0	1.1	3.0	1.1

Source: Pakistan Bureau of Statistics and SBP staff estimates

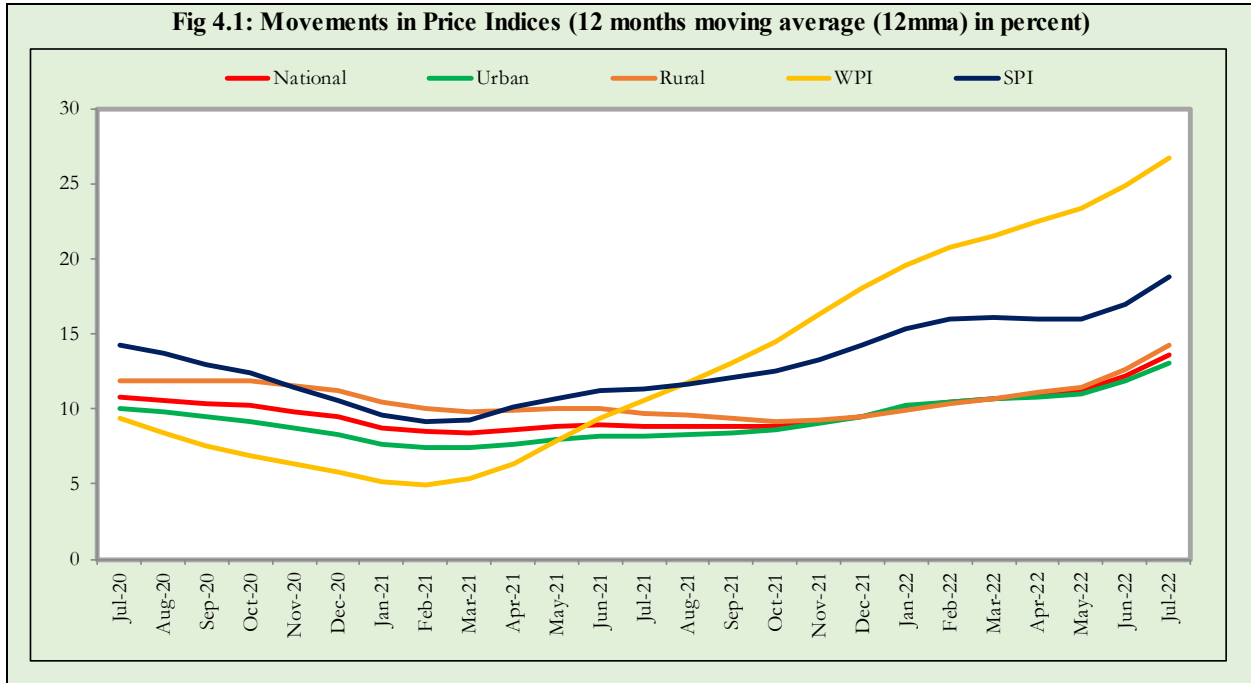
<0.00                      0.75                      >1.50

### 3. Trends in Inflation

**Fig 3.1: Summary of Inflation Trends (in percent)**



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



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

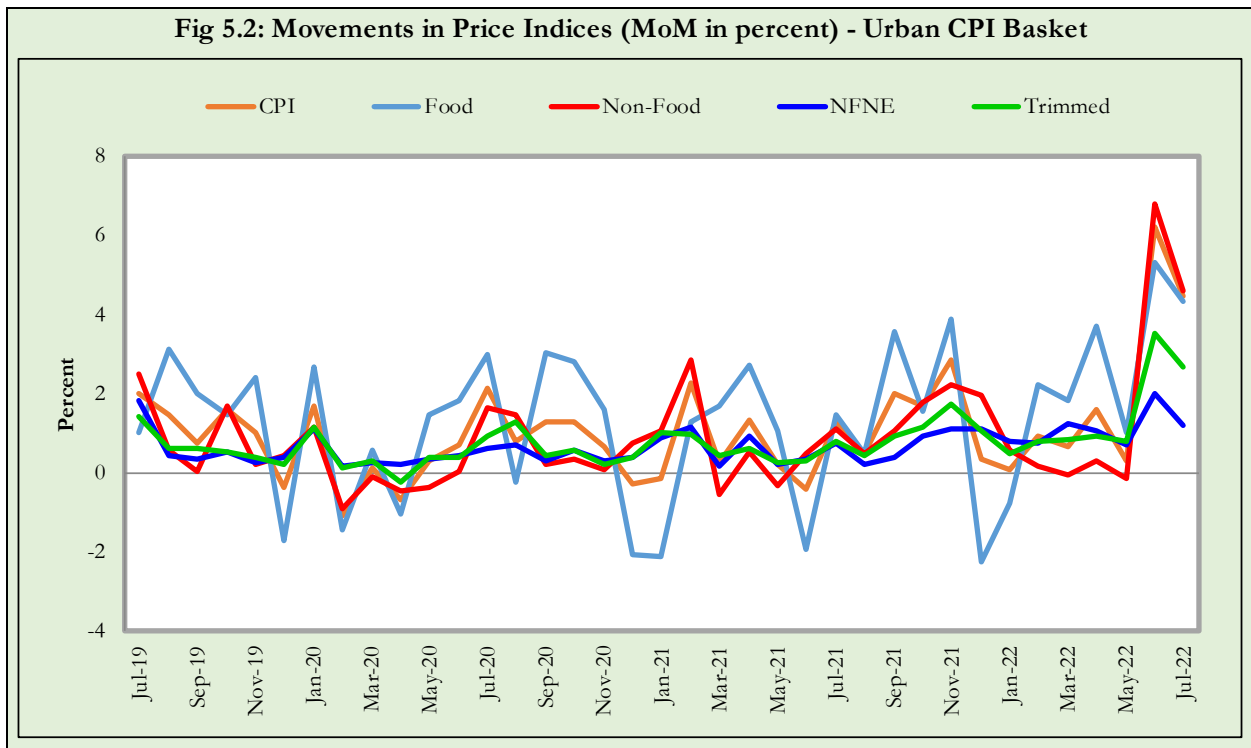
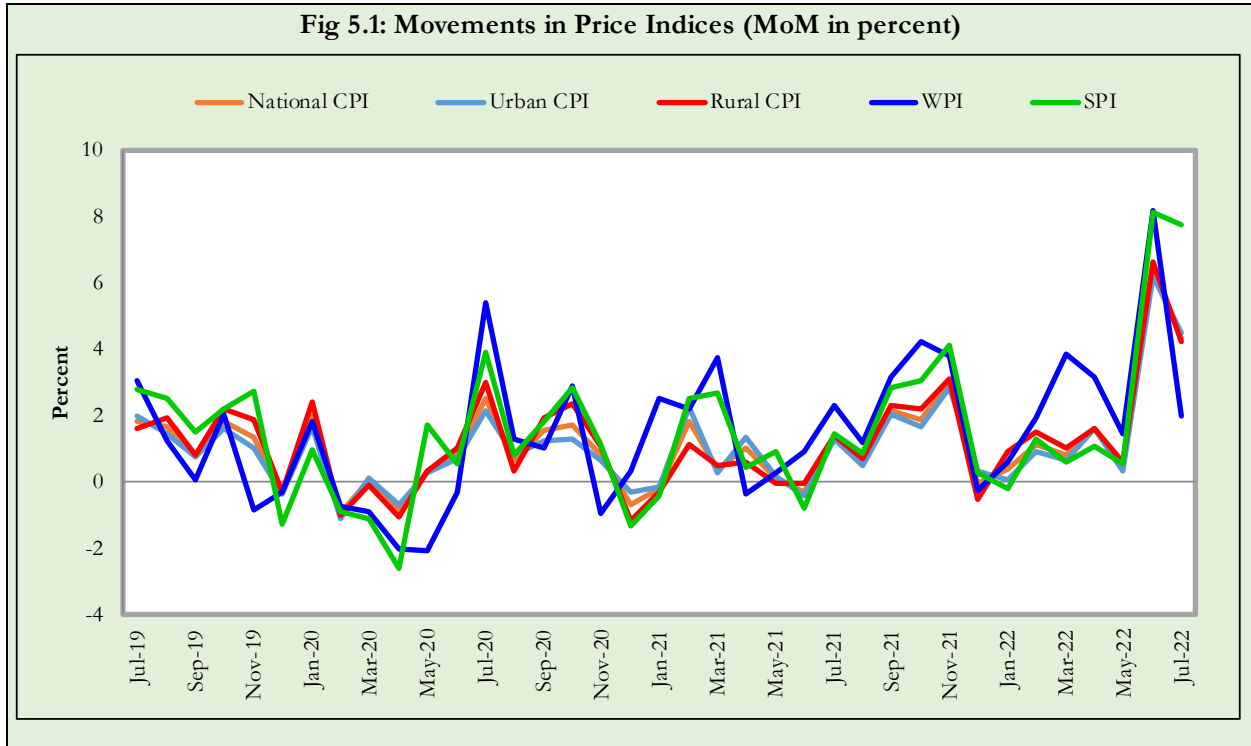
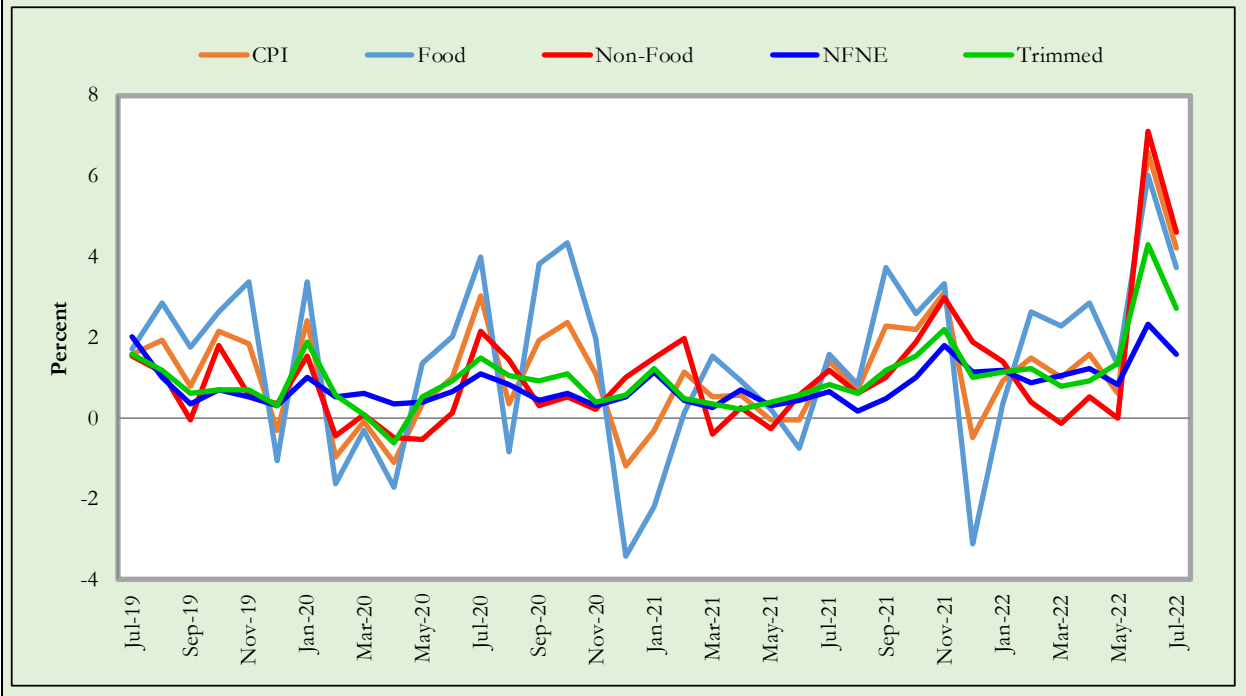
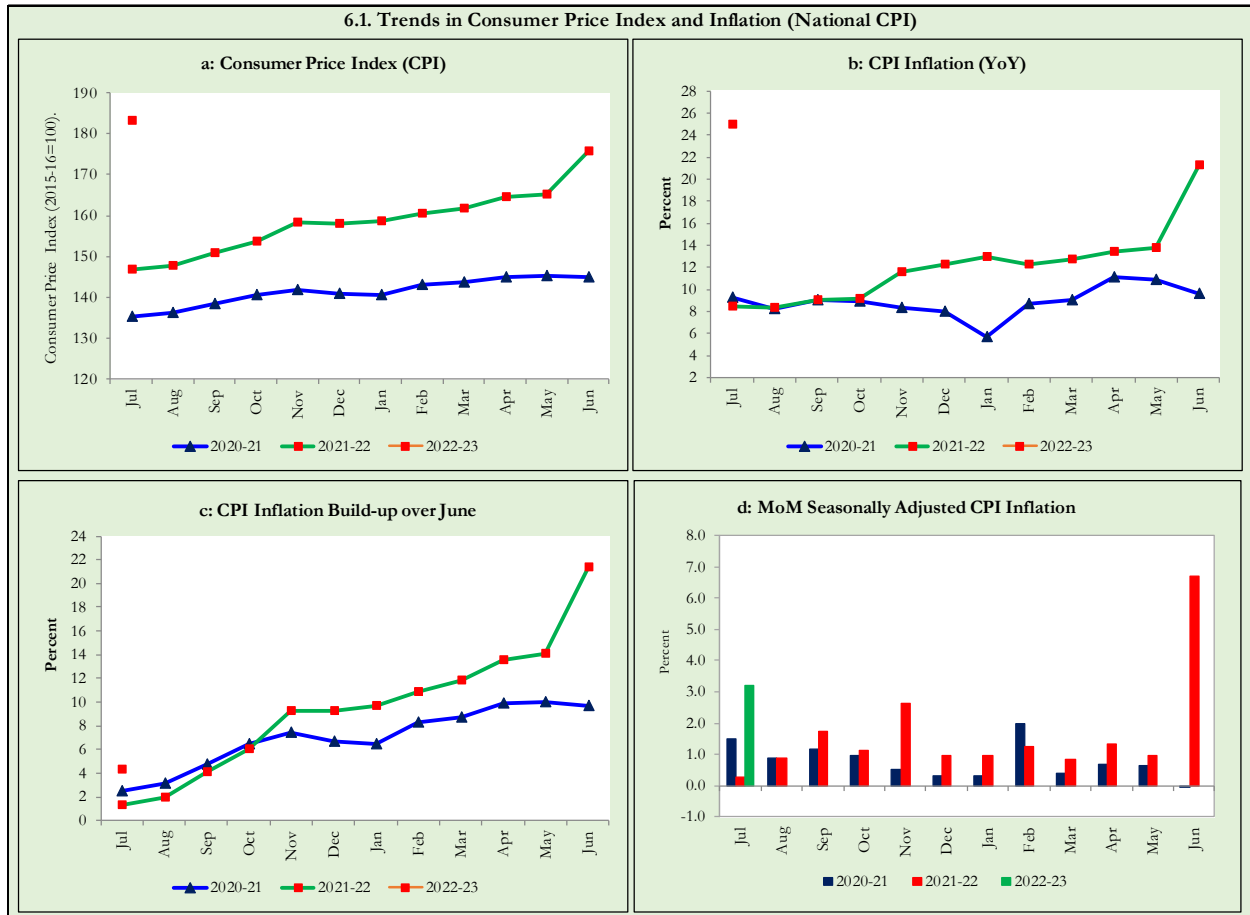


Fig 5.3: Movements in Price Indices (MoM in percent) - Rural CPI Basket



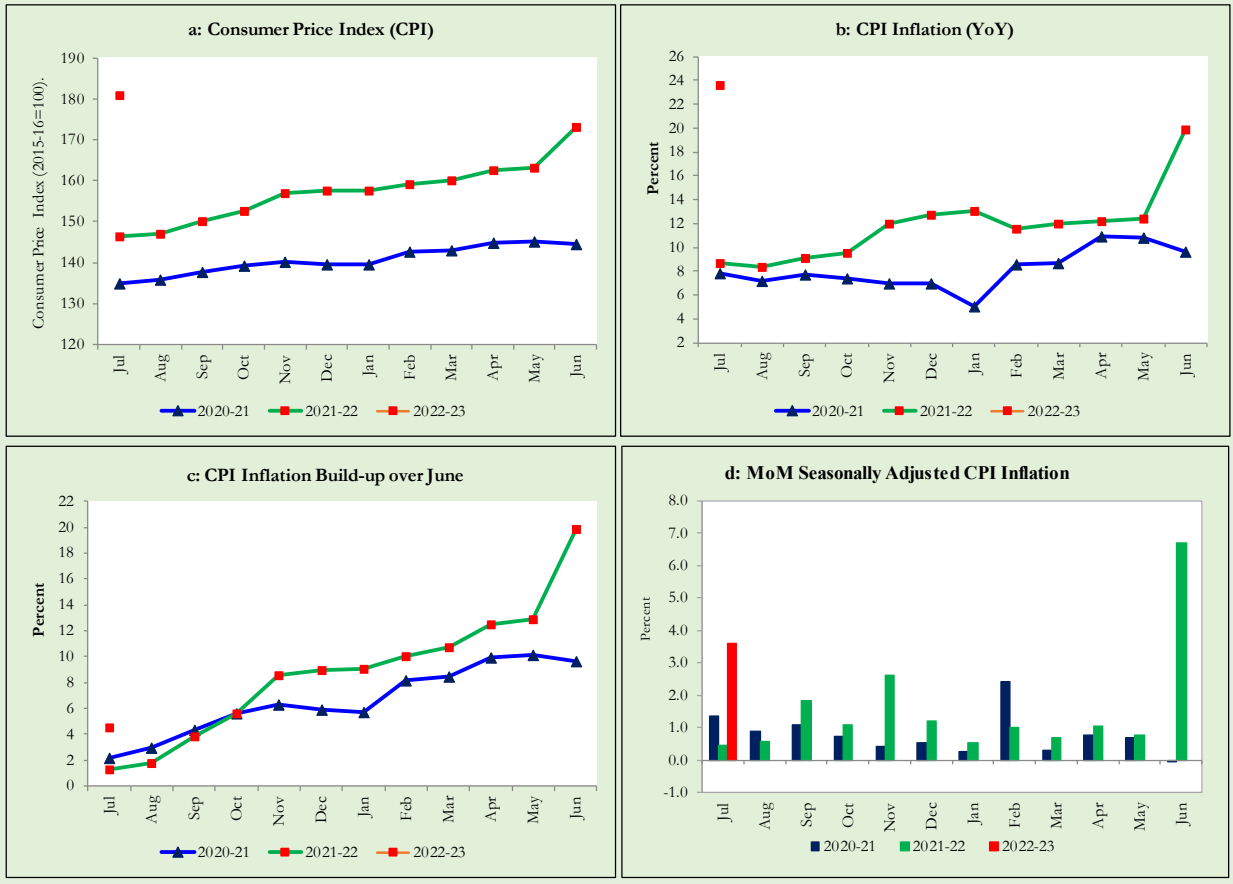
## 6. Trends in Consumer Price Indices and Inflation

Monthly Consumer Price Indices, YoY growth rates and inflation build up over July 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).

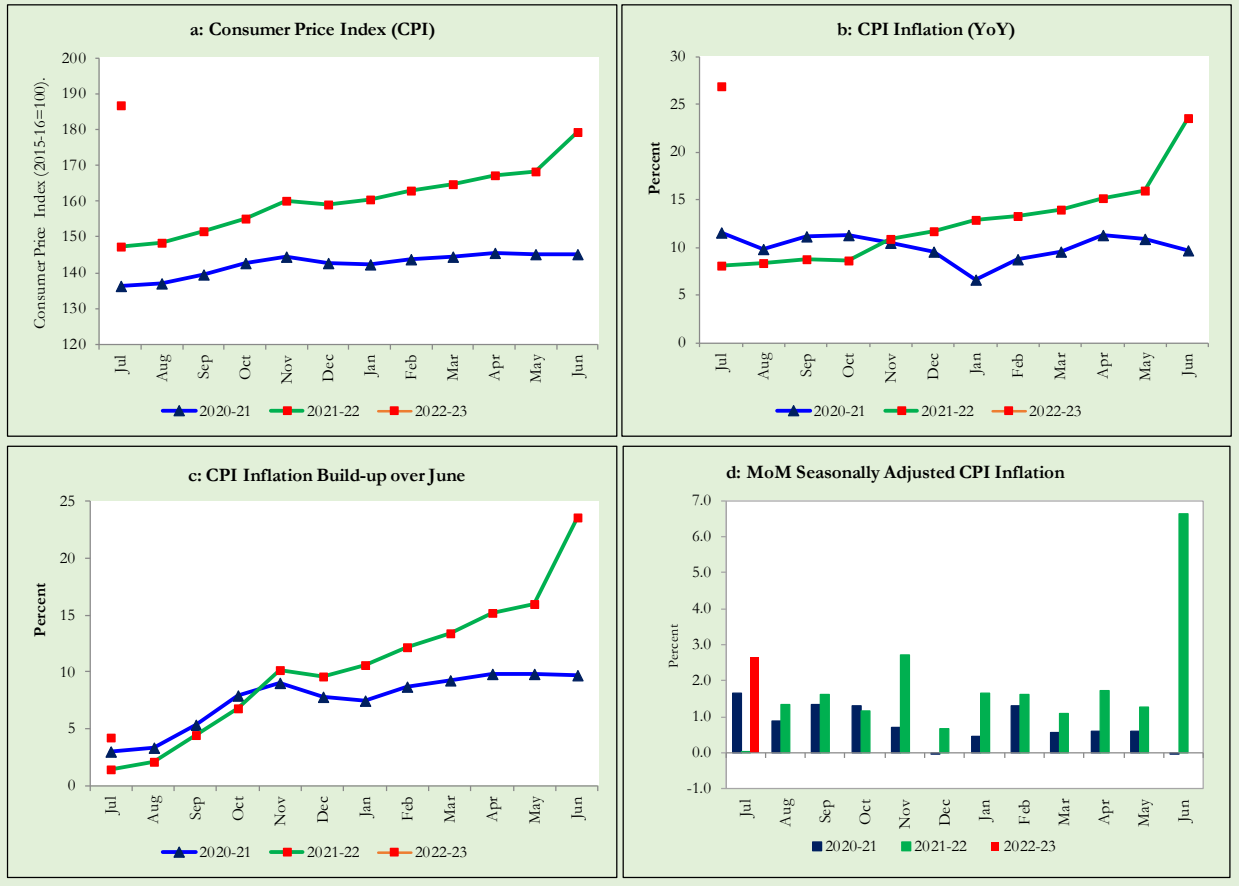




6.2. Trends in Consumer Price Index and Inflation (Urban CPI Basket)



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 decreased to 44.0 percent during July 2022 from 45.7 percent in previous month. It was 40.8 percent during corresponding month of last year. The weighted contribution of non-food group increased to 56.0 percent in July 2022 from 54.3 percent in previous month. Weighted Contribution of non-food was 59.2 percent during corresponding month of last year. Table 7.1 provide 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
Jul-21	100.0	40.8	-5.2	46.0	59.2	17.3	41.9	28.7	13.2
Aug-21	100.0	45.7	1.0	44.7	54.3	14.3	40.0	26.4	13.6
Sep-21	100.0	44.7	-5.6	50.4	55.3	18.7	36.7	24.4	12.3
Oct-21	100.0	37.9	-5.1	43.0	62.1	25.4	36.7	24.0	12.8
Nov-21	100.0	38.6	-0.9	39.5	61.4	28.6	32.8	22.7	10.1
Dec-21	100.0	35.0	-3.4	38.5	65.0	30.8	34.2	24.6	9.5
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

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 decreased to 52.1 percent during July 2022 from 54.2 percent in previous month. It was 43.4 percent during corresponding month of last year. The weighted contribution of non-food group increased to 47.9 percent in July 2022 from 45.8 percent in previous month. Weighted contribution of non-food group was 56.6 percent during corresponding month of last year. Table 7.2 provide 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	i
Jul-21	100.0	43.4	-8.0	51.4	56.6	20.4	36.2	29.9	6.3
Aug-21	100.0	51.1	3.7	47.4	48.8	17.7	31.2	25.2	6.0
Sep-21	100.0	49.5	-5.2	54.8	50.4	20.8	29.6	24.0	5.6
Oct-21	100.0	40.8	-10.9	51.7	59.2	27.7	31.5	25.3	6.2
Nov-21	100.0	39.2	-4.0	43.2	60.8	30.1	30.8	25.9	4.9
Dec-21	100.0	37.2	-6.9	44.1	62.8	31.2	31.6	27.0	4.6
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

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 (CPI, Core and twelve groups) is presented in Table 8.1(a & b) for the last thirteen months.

Groups	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22
General	52.2	51.7	57.6	60.1	70.2	63.2	57.6	60.1	60.1	57.3	61.2	75.3	71.1
Food & Non-Alcoholic Beverages	38.9	40.0	55.6	41.1	42.2	34.4	40.0	46.7	34.4	44.4	37.8	57.8	66.7
Alcoholic Beverages & Tobacco	0.0	0.0	33.3	33.3	33.3	33.3	66.7	33.3	33.3	66.7	100.0	100.0	100.0
Clothing & Footwear	47.5	45.0	50.0	55.0	80.0	85.0	77.5	77.5	70.0	67.5	72.5	82.5	62.5
Housing, Water, Elect, Gas & other Fuels	58.6	41.4	58.6	72.4	72.4	69.0	13.8	3.4	10.3	17.2	20.7	72.4	75.9
Furnishing & Household Equip. Maintenance etc.	83.3	78.6	83.3	88.1	90.5	88.1	88.1	90.5	90.5	90.5	97.6	100.0	97.6
Health	54.8	74.2	54.8	51.6	64.5	90.3	71.0	87.1	77.4	74.2	61.3	90.3	61.3
Transport	37.5	46.9	40.6	50.0	93.8	53.1	62.5	62.5	59.4	40.6	53.1	93.8	81.3
Communication	60.0	20.0	20.0	20.0	0.0	20.0	40.0	20.0	20.0	20.0	20.0	40.0	40.0
Recreation & Culture	68.0	56.0	48.0	72.0	68.0	24.0	36.0	36.0	68.0	44.0	76.0	44.0	52.0
Education	25.0	25.0	25.0	56.3	81.3	68.8	31.3	37.5	75.0	43.8	50.0	25.0	31.3
Restaurant & Hotels	71.4	57.1	64.3	85.7	85.7	100.0	78.6	92.9	78.6	78.6	92.9	92.9	85.7
Miscellaneous	58.6	69.0	89.7	82.8	96.6	86.2	89.7	86.2	100.0	89.7	96.6	100.0	86.2
NFNE	57.4	56.2	59.1	66.0	80.9	75.3	67.2	69.4	76.6	67.2	72.8	81.3	71.5

Groups	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22
General	44.3	41.0	54.1	66.8	61.9	56.1	57.4	59.4	52.0	54.9	59.0	74.2	76.6
Food & Non-Alcoholic Beverages	29.1	27.8	41.8	49.4	29.1	21.5	44.3	45.6	41.8	32.9	40.5	53.2	64.6
Alcoholic Beverages & Tobacco	-20.0	0.0	40.0	80.0	40.0	80.0	60.0	100.0	0.0	80.0	100.0	100.0	100.0
Clothing & Footwear	55.6	25.9	74.1	81.5	96.3	96.3	70.4	92.6	74.1	92.6	88.9	81.5	81.5
Housing, Water, Elect, Gas & other Fuels	73.9	60.9	65.2	91.3	87.0	73.9	17.4	4.3	0.0	26.1	26.1	82.6	95.7
Furnishing & Household Equip. Maintenance etc.	80.8	61.5	57.7	84.6	88.5	96.2	92.3	92.3	84.6	80.8	84.6	92.3	92.3
Health	14.3	64.3	42.9	57.1	71.4	78.6	64.3	78.6	42.9	71.4	42.9	100.0	64.3
Transport	62.5	43.8	62.5	68.8	81.3	43.8	62.5	62.5	37.5	50.0	68.8	87.5	75.0
Communication	40.0	20.0	0.0	20.0	0.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	40.0
Recreation & Culture	30.8	53.8	53.8	61.5	53.8	15.4	38.5	53.8	69.2	30.8	76.9	53.8	53.8
Education	80.0	60.0	0.0	20.0	0.0	20.0	60.0	80.0	80.0	100.0	80.0	80.0	100.0
Restaurant & Hotels	28.6	28.6	64.3	78.6	85.7	85.7	78.6	57.1	78.6	57.1	71.4	92.9	85.7
Miscellaneous	41.2	58.8	88.2	88.2	88.2	82.4	94.1	76.5	88.2	94.1	76.5	94.1	94.1
NFNE	53.7	47.8	57.4	71.3	75.0	72.1	67.6	71.3	66.9	74.3	69.9	82.4	78.7

## 9. Domestic Commodity Prices (Growth)

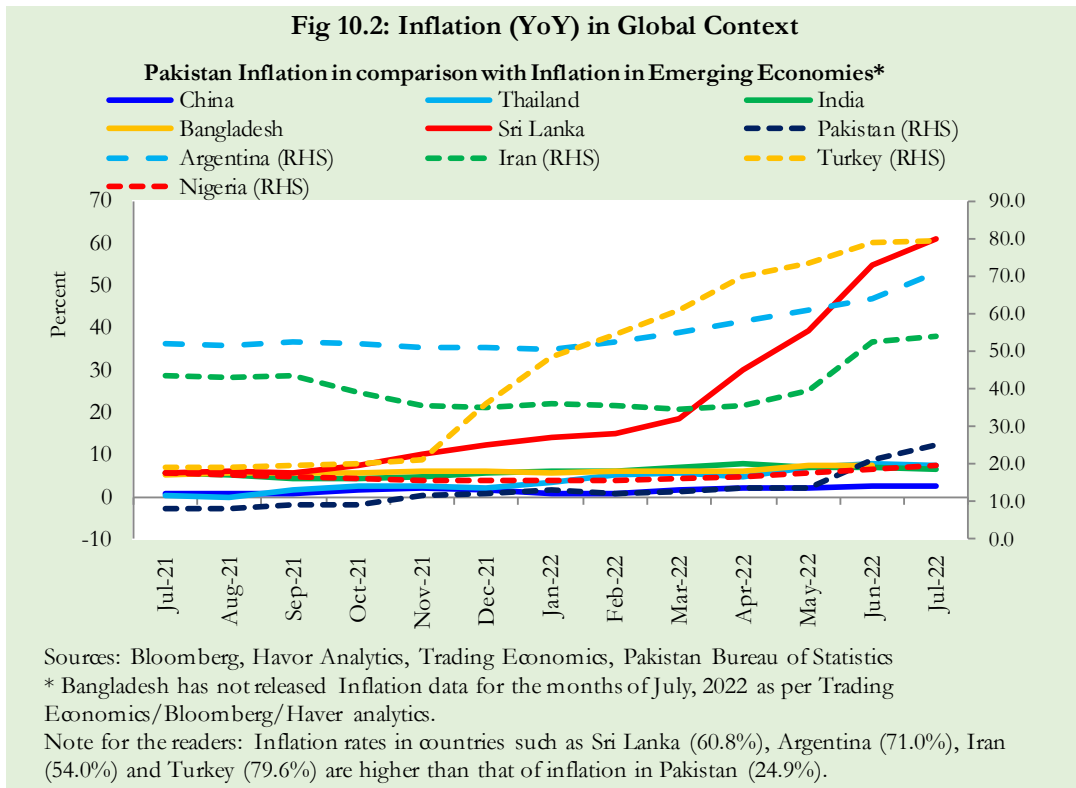
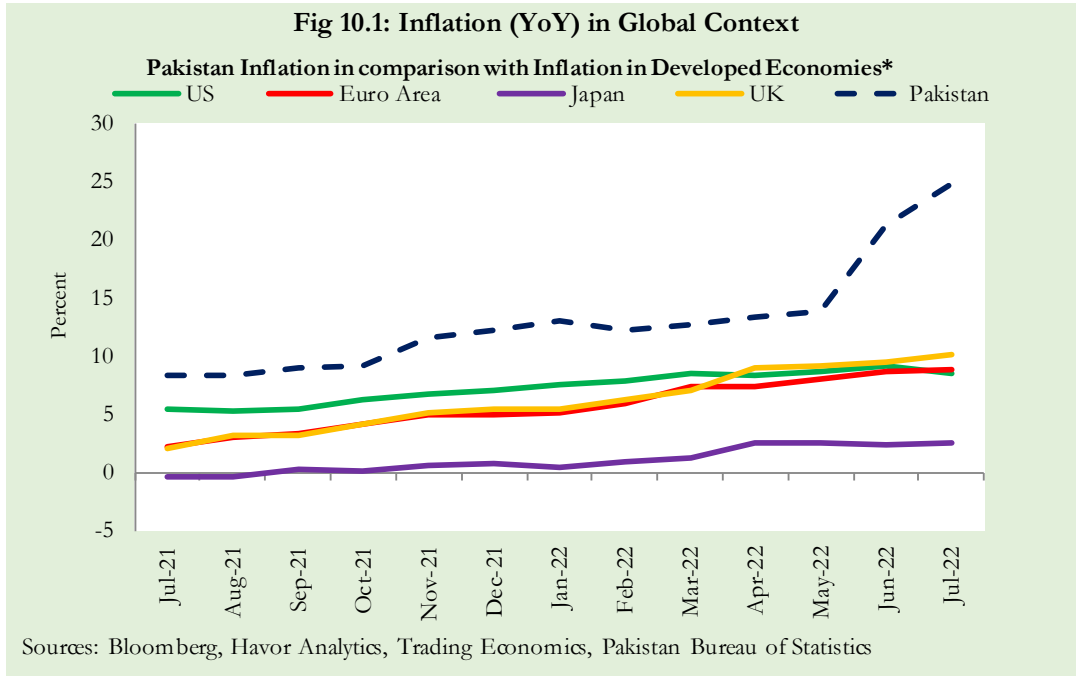
Growth of domestic food commodities (YoY and MoM in percent) for selected essential food items covering both urban and rural CPI baskets is given in table 9.1.

S. No	Item	Unit	Urban CPI		Rural CPI	
			YoY	MoM	YoY	MoM
1	Wheat	10 Kg	45.0	9.8	38.3	7.1
2	Wheat Flour Bag	20 Kg	11.5	3.2	21.3	7.9
3	Rice Basmati Broken (Superior/Average Quality)*	1 Kg	46.8	7.3	29.5	5.5
4	Beef With Bone (Average Quality)	1 Kg	24.2	0.8	26.0	0.2
5	Mutton (Average Quality)	1 Kg	28.4	1.1	24.9	0.9
6	Chicken Farm Broiler (Live)	1 Kg	59.1	-3.0	60.9	4.8
7	Milk Fresh (Un-Boiled)	1 Litre	25.9	4.1	21.5	2.7
8	Eggs Farm	Dozen	23.7	8.1	25.2	9.1
9	Vegetable Ghee Dalda/Habib Or Other Superior Quality 1 Kg Pouch	Each	77.2	3.2	83.3	0.3
10	Pulse Masoor (Washed)	1 Kg	92.4	9.0	90.5	9.6
11	Pulse Moong (Washed)	1 Kg	-5.5	2.7	-0.5	4.8
12	Pulse Mash (Washed)	1 Kg	35.7	9.7	30.6	8.2
13	Pulse Gram	1 Kg	43.2	13.9	48.4	14.6
14	Potatoes	1 Kg	10.0	11.2	6.4	20.3
15	Onions	1 Kg	89.5	13.6	100.0	7.1
16	Tomatoes	1 Kg	6.4	-12.5	7.1	-13.4
17	Sugar Refined	1 Kg	-14.5	1.3	-13.8	0.3
18	Garlic (Lehsun)	1 Kg	39.3	6.8	50.6	5.8
19	Ginger (Adrak)	500 Gm	-46.2	18.8	-44.5	14.2
20	Tea Lipton Yellow Label 190 Gm Packet	Each	23.1	9.0	20.5	6.5

\*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.

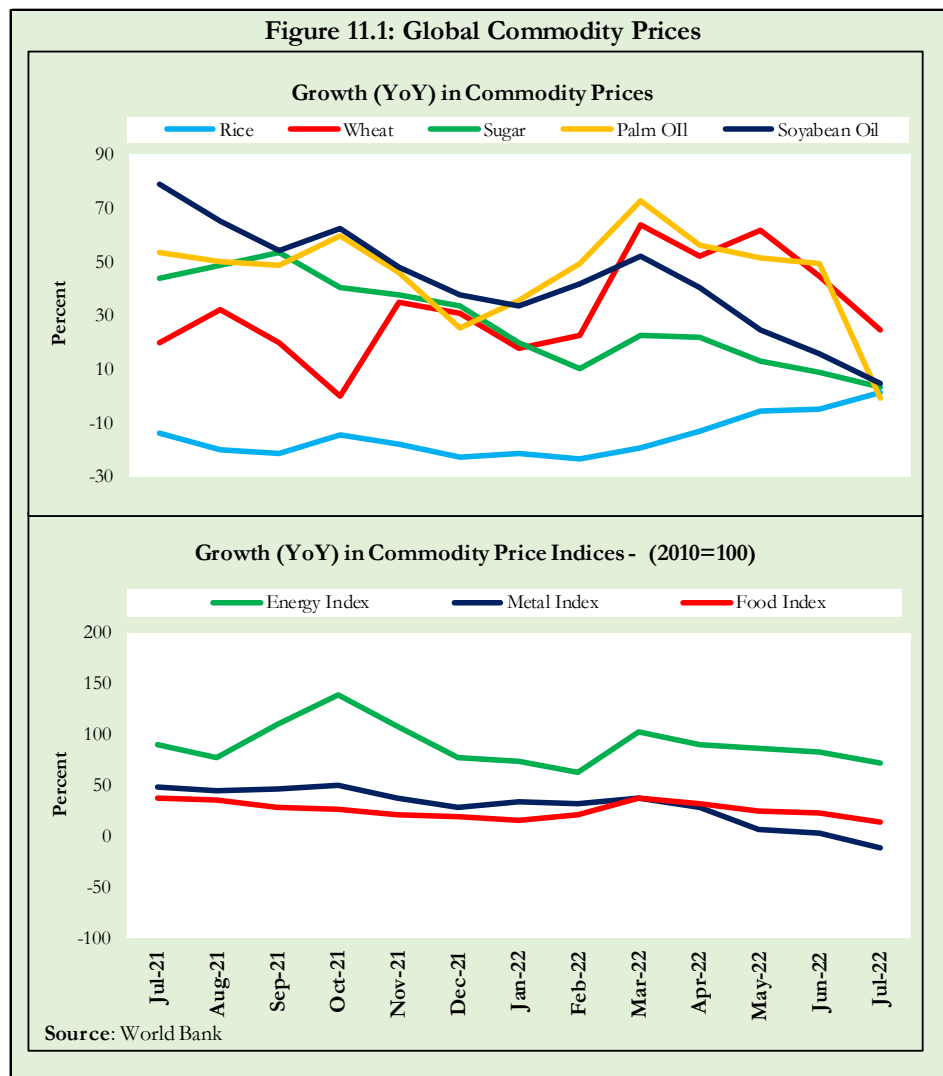




### 11. Global Commodity Prices

Global commodity prices and various group indices have a relation with domestic inflation. In this context, changes in major global commodity prices and indices along with price trends are given in table 11.1 and figure 11.1.

Item/ Group	Jul-21		Jun-22		Jul-22	
	YoY	MoM	YoY	MoM	YoY	MoM
Food	37.1	-0.9	22.8	-4.7	13.4	-8.5
Metals	48.8	0.3	2.3	-6.3	-11.1	-12.8
Energy	90.3	4.7	81.8	6.3	71.5	-1.3
Agricultural	28.6	-0.78	18.0	-3.7	10.1	-7.4
Cotton	42.6	3.4	63.1	-5.9	34.1	-15.0



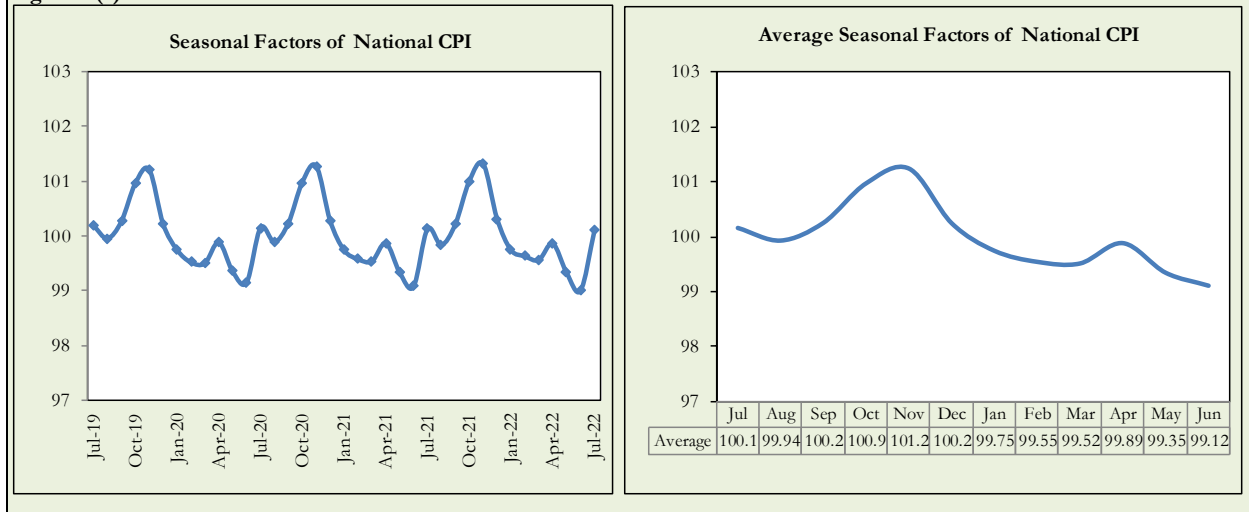
## 12. Seasonal Adjustment in CPI

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.

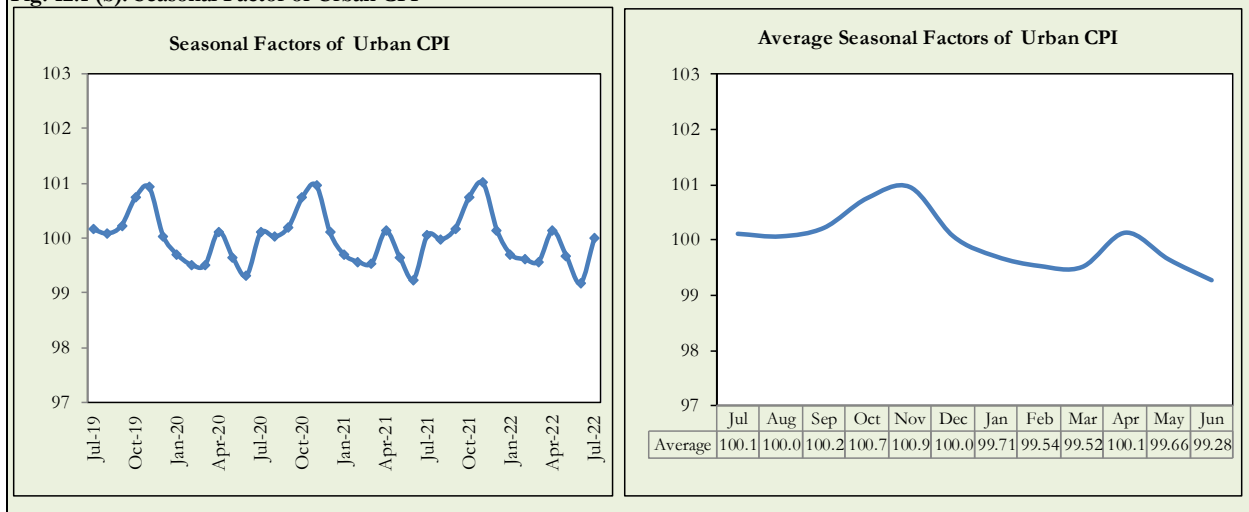
The changes in consumer prices are normally reported in terms of year-on-year and month-on-month basis. Seasonal adjustment is particularly useful for analyzing month-on-month changes. The monthly data series of Consumer Price Indices (National CPI, Urban CPI and Rural CPI) from July 2008 to July 2022 has been used for seasonal adjustment analysis. The seasonal analysis is carried out without taking trading-day or Islamic calendar month's effects.

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. It is important to note that seasonal factors are estimate on historical data and that the future data Jun not necessarily show the same seasonal pattern.

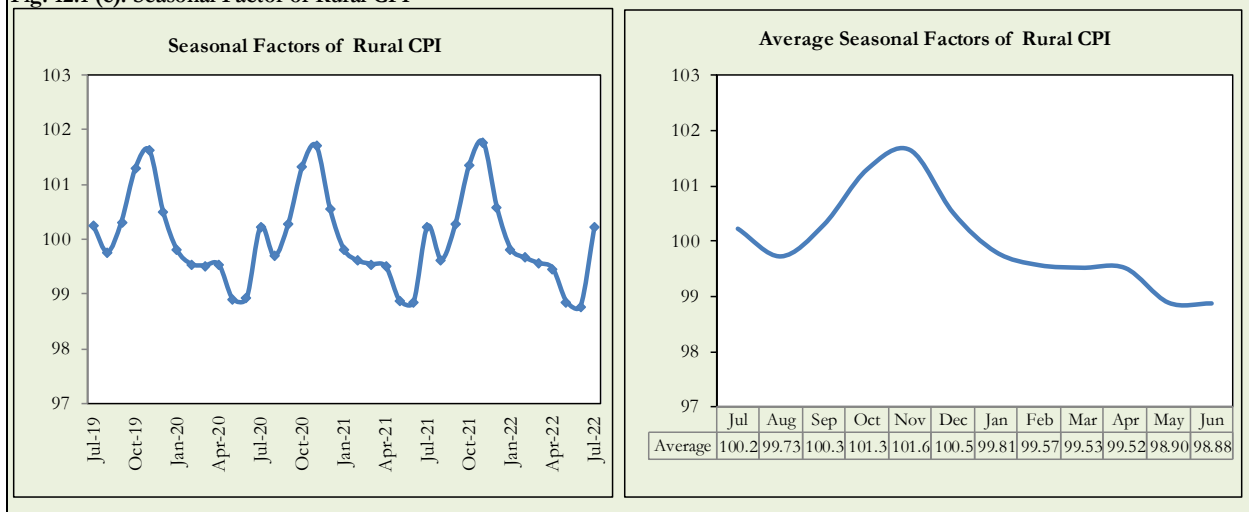
**Fig. 12.1 (a): Seasonal Factor of National CPI**



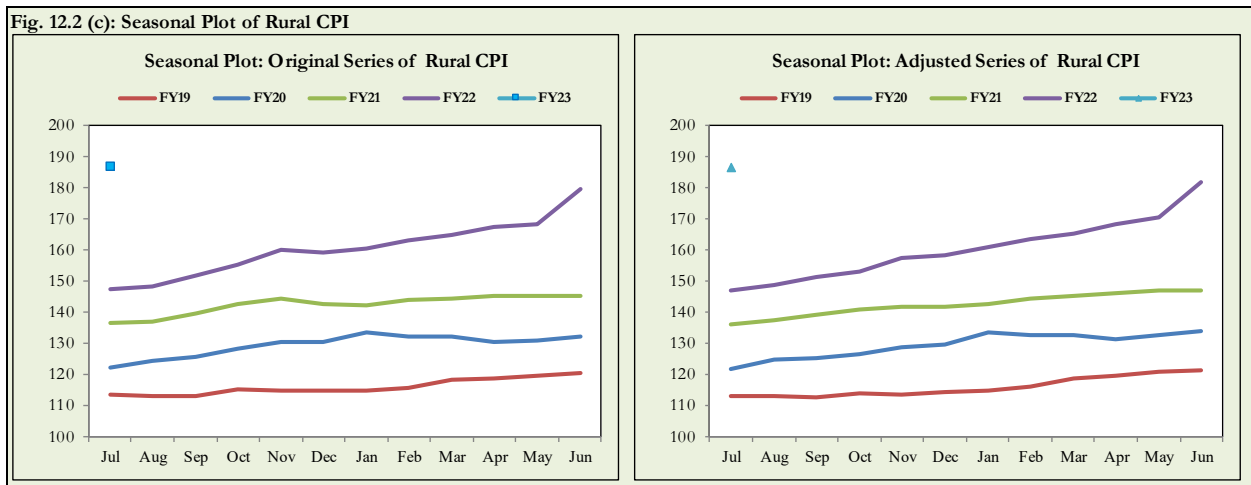
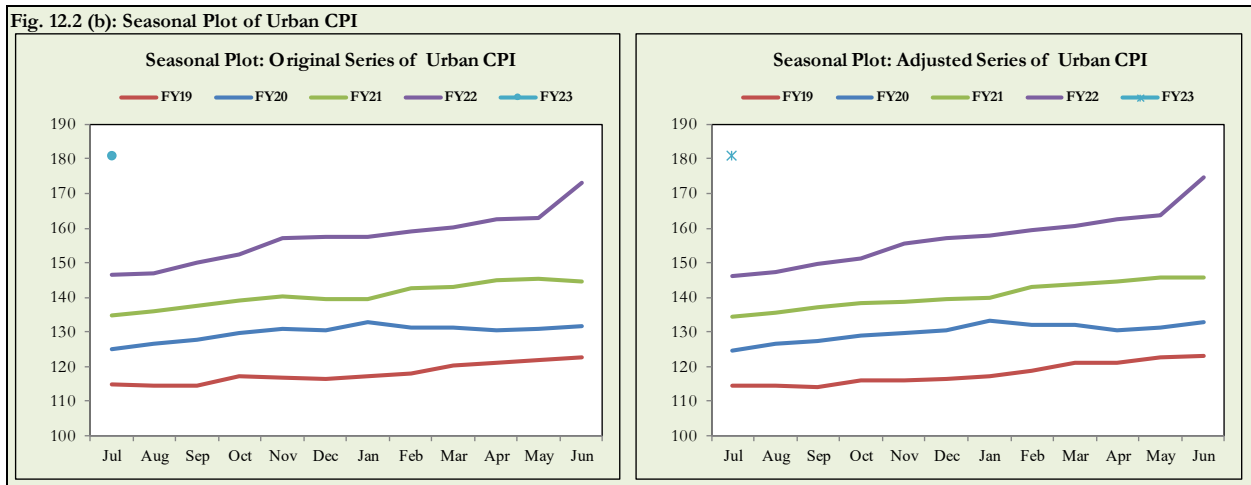
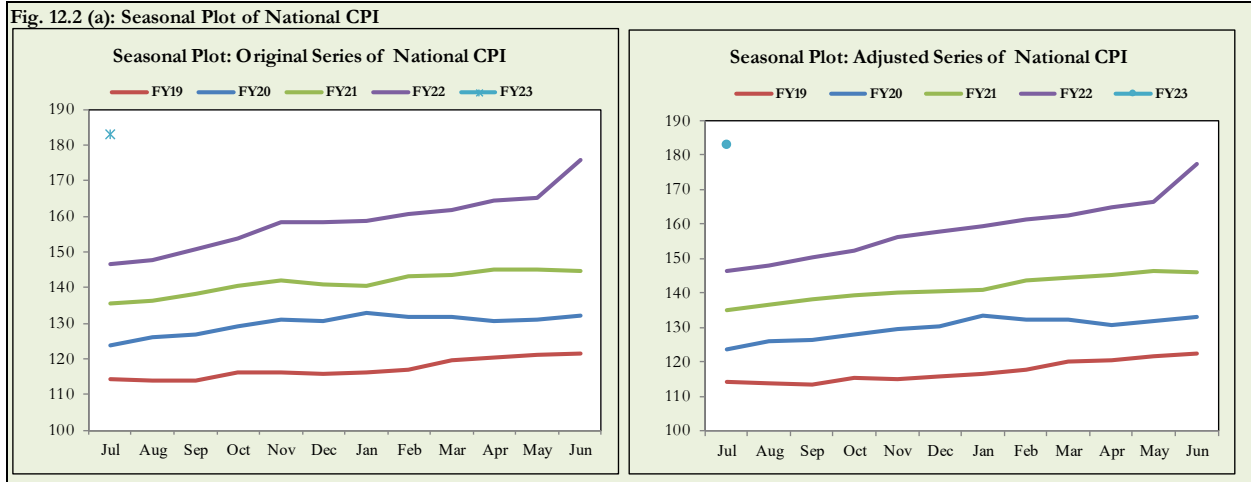
**Fig. 12.1 (b): Seasonal Factor of Urban CPI**



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



Figures 12.2 show 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.



Seasonally adjusted Index of National CPI for July 2022 stood at 183.16 against 183.35 in original series showing a decrease of 0.19 because of seasonal adjustment.

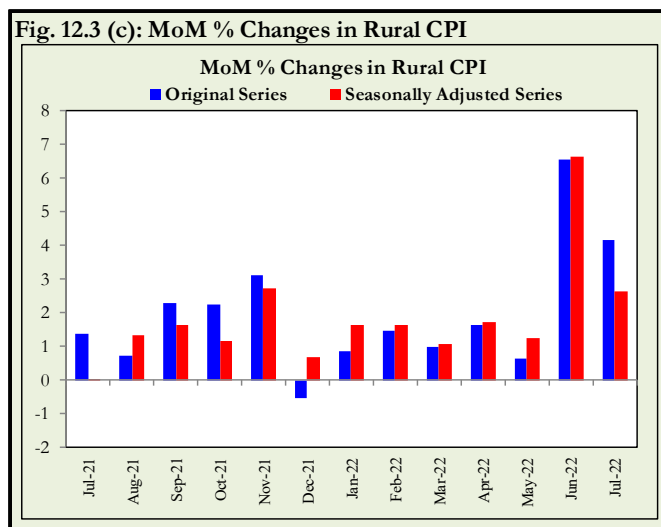
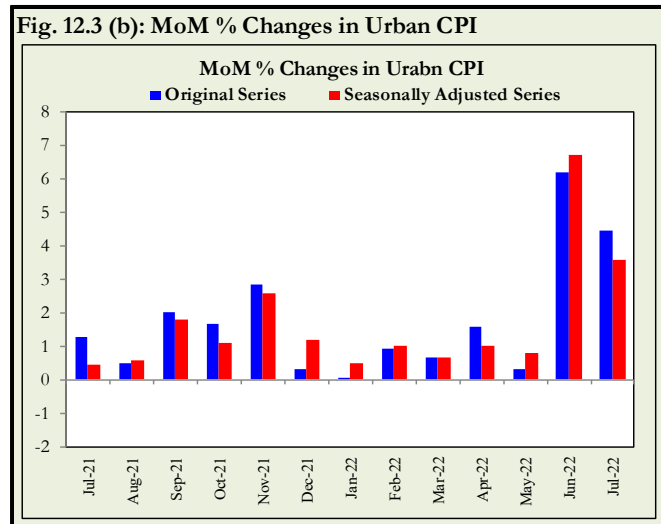
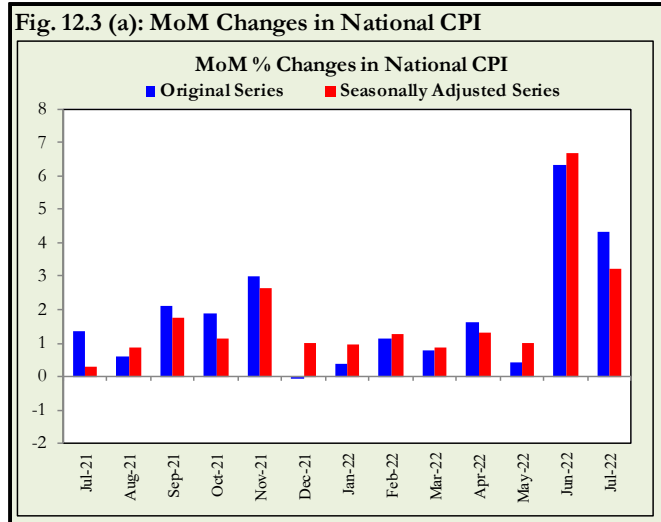
Seasonally adjusted Index of Urban CPI for July 2022 stood at 180.95 against 180.97 in original series showing a decrease of 0.02 on account of seasonal adjustment.

Seasonally adjusted Index of Rural CPI for July 2022 stood at 186.51 against 186.94 in original series showing a decrease of 0.43 on account of seasonal adjustment.

Month-on-month change of seasonally adjusted National CPI series stood at 3.21% reflecting a decrease during July 2022 over previous month and a decrease of 4.35% in original series.

Month-on-month change of seasonally adjusted Urban CPI series stood at 3.59% reflecting a decrease during July 2022 over previous month and a decrease of 4.47 % in original series.

Month-on-month change of seasonally adjusted Rural CPI series stood at 2.66% reflecting a decrease during July 2022 over previous month and a decrease of 4.17% in original series.



**List of Tables****Table A0: Inflation – Summary**

Period	CPI							WPI	SPI**	Core Inflation			
	General			Food		Non-Food				NFNE*		Trimmed	
	National	Urban	Rural	Urban	Rural	Urban	Rural			Urban	Rural	Urban	Rural
<b>Year-on-Year</b>													
Jul-21	8.4	8.7	8.0	9.4	7.3	8.2	8.7	17.3	12.6	6.9	6.9	9.0	8.4
Aug-21	8.4	8.3	8.4	10.2	9.1	7.2	7.7	17.1	12.7	6.3	6.2	7.8	7.8
Sep-21	9.0	9.1	8.8	10.8	9.1	8.1	8.5	19.6	13.8	6.4	6.2	8.7	8.2
Oct-21	9.2	9.6	8.7	9.4	7.2	9.7	10.0	21.2	14.0	6.7	6.7	8.7	8.2
Nov-21	11.5	12.0	10.9	11.9	8.6	12.0	13.0	27.0	17.4	7.6	8.2	9.8	9.5
Dec-21	12.3	12.7	11.6	11.7	9.0	13.4	14.0	26.2	19.3	8.3	8.9	10.8	10.3
Jan-22	13.0	13.0	12.9	13.3	11.8	12.8	13.9	24.0	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	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	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	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	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	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	34.3	12.0	14.6	19.1	21.7
<b>Month-on-Month</b>													
Jul-21	1.3	1.3	1.4	1.5	1.6	1.1	1.2	2.3	1.4	0.8	0.7	0.8	0.8
Aug-21	0.6	0.5	0.7	0.5	0.8	0.5	0.6	1.2	0.9	0.2	0.2	0.4	0.6
Sep-21	2.1	2.0	2.3	3.6	3.7	1.1	1.0	3.2	2.9	0.4	0.5	0.9	1.2
Oct-21	1.9	1.7	2.2	1.5	2.6	1.8	1.9	4.2	3.1	0.9	1.0	1.1	1.6
Nov-21	3.0	2.9	3.1	3.9	3.3	2.2	3.0	3.8	4.1	1.1	1.8	1.7	2.2
Dec-21	-0.02	0.3	-0.5	-2.3	-3.1	2.0	1.9	-0.2	0.3	1.1	1.1	1.1	1.0
Jan-22	0.4	0.1	0.9	-0.8	0.4	0.6	1.4	0.6	-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	1.3	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	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	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	0.6	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	8.1	2.0	2.3	3.5	4.3
Jul-22	4.4	4.5	4.2	4.3	3.7	4.6	4.6	2.0	7.7	1.2	1.6	2.7	2.7

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

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

Groups	Weights	MoM change			YoY change		
		Jul-21	Jun-22	Jul-22	Jul-21	Jun-22	Jul-22
Food & Non-Alcoholic	34.6	1.8	5.5	4.1	8.2	25.9	28.8
Alcoholic Beverages & Tobacco	1.0	-0.1	7.0	4.1	3.1	17.6	22.5
Clothing & Footwear	8.6	0.3	2.3	1.1	9.5	13.7	14.6
Housing, Water, Elec, Gas & other Fuels	23.6	1.4	7.7	8.8	9.2	13.5	21.8
Furnishing & Household Equip. Maintenance etc	4.1	0.9	2.9	1.7	9.8	18.8	19.7
Health	2.8	0.3	1.2	0.2	8.6	11.3	11.2
Transport	5.9	4.0	24.4	5.7	10.5	62.2	64.7
Communication	2.2	1.2	0.2	0.4	2.8	2.0	1.2
Recreation & Culture	1.6	0.6	3.2	1.6	5.9	14.4	15.4
Education	3.8	0.2	0.3	0.5	2.0	9.5	9.8
Restaurants & Hotels	6.9	0.3	5.8	2.9	8.5	21.9	25.0
Miscellaneous	4.9	0.5	3.3	1.6	9.4	15.8	17.2
<b>Overall National CPI</b>	<b>100.0</b>	<b>1.3</b>	<b>6.3</b>	<b>4.4</b>	<b>8.4</b>	<b>21.3</b>	<b>24.9</b>

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

Groups	Weights	MoM change			YoY change		
		Jul-21	Jun-22	Jul-22	Jul-21	Jun-22	Jul-22
<b>I. Food Group</b>	<b>36.8</b>	<b>1.5</b>	<b>5.3</b>	<b>4.3</b>	<b>9.4</b>	<b>24.0</b>	<b>27.4</b>
Food & Non-Alcoholic Beverages	30.4	1.7	5.0	4.3	9.2	24.6	27.8
Alcoholic Beverages & Tobacco	0.9	0.0	8.2	2.9	3.8	18.3	21.7
Restaurant & Hotels (Food)	5.5	0.5	6.5	4.3	11.6	21.3	26.0
<b>II. Non-Food Group</b>	<b>63.2</b>	<b>1.1</b>	<b>6.8</b>	<b>4.6</b>	<b>8.2</b>	<b>17.3</b>	<b>21.3</b>
Clothing & Footwear	8.0	0.2	3.0	1.0	10.4	14.2	15.0
Housing, Water, Elec, Gas & other Fuels	27.0	1.4	7.0	8.6	8.5	11.3	19.2
Furnishing & Household Equip. Maintenance etc	4.1	1.0	2.6	1.5	9.5	17.6	18.2
Health	2.3	0.2	1.4	0.1	9.5	10.9	10.8
Transport	6.1	4.1	23.5	5.6	11.4	61.5	63.8
Communication	2.4	1.8	0.2	0.4	3.8	2.5	1.1
Recreation & Culture	1.7	0.7	3.1	1.2	5.4	13.3	13.9
Education	4.9	0.2	0.1	0.3	1.5	10.4	10.5
Restaurants & Hotels (Non-food Component)	1.9	0.0	6.9	0.1	3.3	20.8	20.9
Miscellaneous	4.8	0.0	3.7	1.4	9.3	15.1	16.8
<b>Overall Urban CPI</b>	<b>100.0</b>	<b>1.3</b>	<b>6.2</b>	<b>4.5</b>	<b>8.7</b>	<b>19.8</b>	<b>23.6</b>

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

Groups	Weights	MoM Change			YoY Change		
		Jul-21	Jun-22	Jul-22	Jul-21	Jun-22	Jul-22
<b>I. Food Group</b>	<b>45.9</b>	<b>1.7</b>	<b>6.0</b>	<b>3.7</b>	<b>7.3</b>	<b>27.0</b>	<b>29.6</b>
Food and Non-Alcoholic Beverages	40.9	1.8	6.1	3.8	7.2	27.4	29.9
Alcoholic Beverages, Tobacco	1.3	-0.1	5.6	5.5	2.4	16.9	23.4
Restaurants and Hotels (Food Component)	3.8	0.4	5.2	2.6	10.2	26.5	29.3
<b>II. Non-Food Group</b>	<b>54.1</b>	<b>1.2</b>	<b>7.1</b>	<b>4.6</b>	<b>8.7</b>	<b>20.4</b>	<b>24.5</b>
Clothing and Footwear	9.5	0.4	1.6	1.2	8.4	13.1	14.0
Housing, Water, Elec., Gas and Other Fuels	18.5	1.5	9.2	9.4	10.6	18.4	27.6
Furnishing and Household Equip. Maintenance	4.1	0.7	3.3	2.0	10.3	20.5	22.0
Health	3.5	0.3	1.1	0.3	7.7	11.8	11.7
Transport	5.6	3.9	25.9	5.7	9.0	63.4	66.3
Communication	2.0	0.2	0.2	0.4	1.0	1.0	1.2
Recreation and Culture	1.4	0.5	3.4	2.2	6.9	16.3	18.2
Education	2.1	0.5	0.9	1.4	4.1	6.2	7.2
Restaurants and Hotels (Non-Food Component)	2.4	0.0	2.5	1.4	0.6	16.2	17.8
Miscellaneous	5.0	1.2	2.8	2.0	9.5	16.8	17.7
<b>Rural CPI</b>	<b>100.0</b>	<b>1.4</b>	<b>6.6</b>	<b>4.2</b>	<b>8.0</b>	<b>23.6</b>	<b>26.9</b>



Table A4: Top Ten Contributors to Urban CPI Inflation (YoY) – July 2022

Items/Contributors	Weights	YoY Change		Weighted Contribution (%)	
		Jul-21	Jul-22		
<b><u>A. Ranked by Weighted Contribution</u></b>					
1	Electricity Charges	4.56	21.72	86.72	15.03
2	Motor Fuel	2.91	16.43	94.42	13.07
3	Milk Fresh	7.11	13.73	24.75	7.26
4	Readymade Food	5.52	11.59	25.95	6.04
5	House Rent	19.26	6.05	5.62	4.38
6	Vegetable Ghee	1.03	32.85	74.08	4.37
7	Cooking Oil	1.10	31.70	72.56	4.35
8	Wheat Flour	3.01	14.92	23.76	3.05
9	Chicken	1.36	-13.02	59.09	2.87
10	Meat	2.04	13.31	25.97	2.67
<b>Total</b>		<b>47.90</b>			<b>63.09</b>
<b><u>B. Ranked by Percentage Change</u></b>					
1	Motor Fuel	2.91	16.43	94.42	13.07
2	Pulse Masoor	0.16	2.80	92.43	0.46
3	Onions	0.59	9.70	89.48	1.64
4	Electricity Charges	4.56	21.72	86.72	15.03
5	Mustard Oil	0.01	33.32	81.95	0.05
6	Vegetable Ghee	1.03	32.85	74.08	4.37
7	Cooking Oil	1.10	31.70	72.56	4.35
8	Gram Whole	0.09	3.45	67.48	0.23
9	Chicken	1.36	-13.02	59.09	2.87
10	Liquefied Hydrocarbons	0.51	37.58	45.62	1.20
<b>Total</b>		<b>12.32</b>			<b>43.27</b>
<b><u>C. Ranked by Weights</u></b>					
1	House Rent	19.26	6.05	5.62	4.38
2	Milk Fresh	7.11	13.73	24.75	7.26
3	Readymade Food	5.52	11.59	25.95	6.04
4	Education	4.88	1.48	10.51	2.18
5	Electricity Charges	4.56	21.72	86.72	15.03
6	Wheat Flour	3.01	14.92	23.76	3.05
7	Appliances/Articles/Products For Personal	2.98	12.08	15.79	1.96
8	Motor Fuel	2.91	16.43	94.42	13.07
9	Cotton Cloth	2.22	9.77	18.15	1.76
10	Meat	2.04	13.31	25.97	2.67
<b>Total</b>		<b>54.49</b>			<b>57.40</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 23.6 percent in July 2022.

**Table A5: Top Ten Contributors to Urban CPI Inflation (MoM) in July 2022**

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Jun-22	Jul-22		
<b>A. Ranked by Weighted Contribution</b>					
1	Electricity Charges	4.56	51.80	39.35	40.82
2	Motor Fuel	2.91	37.13	7.35	8.23
3	Fresh Vegetables	1.53	-3.54	25.14	7.48
4	Milk Fresh	7.11	8.18	3.84	6.04
5	Readymade Food	5.52	6.54	4.33	5.43
6	House Rent	19.26	0.00	1.47	5.32
7	Wheat Flour	3.01	-3.76	6.34	4.23
8	Cooking Oil	1.10	7.91	7.66	3.29
9	Vegetable Ghee	1.03	12.86	5.11	2.23
10	Onions	0.59	1.75	13.65	1.87
<b>Total</b>		<b>46.62</b>			<b>84.94</b>
<b>B. Ranked by Percentage Change</b>					
1	Electricity Charges	4.56	51.80	39.35	40.82
2	Fresh Vegetables	1.53	-3.54	25.14	7.48
3	Pulse Gram	0.17	14.03	13.87	0.48
4	Onions	0.59	1.75	13.65	1.87
5	Potatoes	0.45	34.62	10.87	1.27
6	Besan	0.08	9.36	10.01	0.17
7	Wheat	0.61	13.03	9.76	1.57
8	Pulse Mash	0.12	7.09	9.73	0.19
9	Pulse Masoor	0.16	17.42	9.01	0.35
10	Tea	0.84	0.08	8.98	1.56
<b>Total</b>		<b>9.11</b>			<b>55.76</b>
<b>C. Ranked by Weights</b>					
1	House Rent	19.26	0.00	1.47	5.32
2	Milk Fresh	7.11	8.18	3.84	6.04
3	Readymade Food	5.52	6.54	4.33	5.43
4	Education	4.88	0.09	0.31	0.32
5	Electricity Charges	4.56	51.80	39.35	40.82
6	Wheat Flour	3.01	-3.76	6.34	4.23
7	Appliances/Articles/Products	2.98	4.13	1.75	1.11
8	Motor Fuel	2.91	37.13	7.35	8.23
9	Cotton Cloth	2.22	2.84	2.21	1.10
10	Meat	2.04	3.91	0.89	0.51
<b>Total</b>		<b>54.49</b>			<b>73.11</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 4.5 percent in July 2022.

**Table A6: Top and Bottom Fifteen Contributors to Urban CPI Inflation (YoY) in July 2022**

Items/ Contributors	Weights	YoY Change		Weighted Contribution (%)	
		Jul-21	Jul-22		
<b>A. Ranked by Weighted Contribution</b>					
1	Electricity Charges	4.56	21.72	86.72	15.03
2	Motor Fuel	2.91	16.43	94.42	13.07
3	Milk Fresh	7.11	13.73	24.75	7.26
4	Readymade Food	5.52	11.59	25.95	6.04
5	House Rent	19.26	6.05	5.62	4.38
6	Vegetable Ghee	1.03	32.85	74.08	4.37
7	Cooking Oil	1.10	31.70	72.56	4.35
8	Wheat Flour	3.01	14.92	23.76	3.05
9	Chicken	1.36	-13.02	59.09	2.87
10	Meat	2.04	13.31	25.97	2.67
11	Transport Services	1.75	8.50	39.66	2.61
12	Fresh Vegetables	1.53	-6.63	40.47	2.40
13	Education	4.88	1.48	10.51	2.18
14	Fresh Fruits	1.44	-13.93	39.23	2.13
15	Appliances/Articles/Products For	2.98	12.08	15.79	1.96
<b>Total</b>		<b>60.48</b>			<b>74.37</b>
<b>Bottom 15 Contributors</b>					
1	Condiments And Spices	1.33	17.64	-21.23	-1.82
2	Sugar	1.11	23.01	-14.50	-0.78
3	Pulse Moong	0.17	-20.75	-5.55	-0.03
4	Gas Charges	1.08	0.00	0.00	0.00
5	Motor Vehicle Tax	0.05	7.62	0.00	0.00
6	Therapeutic Appliances And	0.01	3.77	5.55	0.00
7	Dental Services	0.02	8.47	7.04	0.00
8	Gur	0.04	10.31	3.68	0.01
9	Major Tools & Equipments	0.01	10.30	22.21	0.01
10	Ice Cream	0.10	9.38	1.93	0.01
11	Carpets	0.03	1.08	11.26	0.01
12	Postal Services	0.02	11.13	12.81	0.01
13	Newspapers	0.07	0.00	4.21	0.01
14	Electrical Appliances For Personal	0.05	1.36	16.10	0.03
15	Dessert Preparation	0.04	6.31	17.27	0.03
<b>Total</b>		<b>4.13</b>			<b>-2.51</b>

Table A7: Top and Bottom Fifteen Contributors to Urban CPI Inflation (MoM) in July 2022

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Jun-22	Jul-22		
<b>A. Ranked by Weighted Contribution</b>					
1	Electricity Charges	4.56	51.80	39.35	40.82
2	Motor Fuel	2.91	37.13	7.35	8.23
3	Fresh Vegetables	1.53	-3.54	25.14	7.48
4	Milk Fresh	7.11	8.18	3.84	6.04
5	Readymade Food	5.52	6.54	4.33	5.43
6	House Rent	19.26	0.00	1.47	5.32
7	Wheat Flour	3.01	-3.76	6.34	4.23
8	Cooking Oil	1.10	7.91	7.66	3.29
9	Vegetable Ghee	1.03	12.86	5.11	2.23
10	Onions	0.59	1.75	13.65	1.87
11	Transport Services	1.75	12.58	4.53	1.78
12	Wheat	0.61	13.03	9.76	1.57
13	Tea	0.84	0.08	8.98	1.56
14	Rice	1.18	11.67	5.16	1.44
15	Potatoes	0.45	34.62	10.87	1.27
<b>Total</b>		<b>51.45</b>			<b>92.56</b>
<b>Bottom 15 Contributors</b>					
1	Fresh Fruits	1.44	7.69	-7.11	-2.58
2	Chicken	1.36	-7.83	-3.02	-1.07
3	Tomatoes	0.35	9.03	-12.46	-1.05
4	Personal Effects N.E.C.	0.94	3.01	-0.53	-0.15
5	Motor Vehicle Tax	0.05	0.00	0.00	0.00
6	Woolen Readymade Garments	0.43	0.00	0.00	0.00
7	Gas Charges	1.08	0.00	0.00	0.00
8	Water Supply	0.53	0.00	0.00	0.00
9	Therapeutic Appliances And	0.01	0.20	0.00	0.00
10	Accommodation Services	0.13	0.07	0.00	0.00
11	Dental Services	0.02	0.93	0.00	0.00
12	Newspapers	0.07	0.84	0.00	0.00
13	Postal Services	0.02	11.99	0.00	0.00
14	Fish	0.39	1.03	0.00	0.00
15	Hospitals Services	0.57	1.58	0.00	0.00
<b>Total</b>		<b>7.39</b>			<b>-4.85</b>

**Table A8: Top and Bottom Fifteen Contributors to MoM Urban CPI Food Inflation in July 2022**

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Jun-22	Jul-22		
<b>A. Ranked by Weighted Contribution</b>					
1	Fresh vegetables	1.53	-3.54	25.14	7.48
2	Milk fresh	7.11	8.18	3.84	6.04
3	Readymade food	5.52	6.54	4.33	5.43
4	Wheat flour	3.01	-3.76	6.34	4.23
5	Cooking oil	1.10	7.91	7.66	3.29
6	Vegetable ghee	1.03	12.86	5.11	2.23
7	Onions	0.59	1.75	13.65	1.87
8	Wheat	0.61	13.03	9.76	1.57
9	Tea	0.84	0.08	8.98	1.56
10	Rice	1.18	11.67	5.16	1.44
11	Potatoes	0.45	34.62	10.87	1.27
12	Eggs	0.51	19.98	8.09	1.11
13	Meat	2.04	3.91	0.89	0.51
14	Pulse gram	0.17	14.03	13.87	0.48
15	Cigarettes	0.72	8.35	2.63	0.41
<b>Total</b>		<b>26.41</b>			<b>38.91</b>
<b>Bottom 15 Contributors</b>					
1	Fresh fruits	1.44	7.69	-7.11	-2.58
2	Chicken	1.36	-7.83	-3.02	-1.07
3	Tomatoes	0.35	9.03	-12.46	-1.05
4	Fish	0.39	1.03	0.00	0.00
5	Honey	0.10	0.10	0.03	0.00
6	Ice cream	0.10	0.44	0.32	0.01
7	Gur	0.04	0.61	0.91	0.01
8	Mustard oil	0.01	17.39	1.61	0.01
9	Beans	0.04	7.29	0.92	0.01
10	Milk powder	0.31	5.32	0.19	0.01
11	Dessert preparation	0.04	4.47	2.86	0.02
12	Wheat products	0.09	3.85	2.49	0.06
13	Pulse moong	0.17	0.78	2.67	0.07
14	Dry fruits	0.33	1.37	1.02	0.07
15	Sweetmeat	0.35	3.40	1.07	0.10
<b>Total</b>		<b>5.13</b>			<b>-4.35</b>

**Table A9: Top and Bottom Fifteen Contributors to MoM Urban CPI Non-Food Inflation in July 2022**

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Jun-22	Jul-22		
<b>A. Ranked by Weighted Contribution</b>					
1	Electricity charges	4.56	51.80	39.35	40.82
2	Motor fuel	2.91	37.13	7.35	8.23
3	House rent	19.26	0.00	1.47	5.32
4	Transport services	1.75	12.58	4.53	1.78
5	Appliances/Articles/Products for	2.98	4.13	1.75	1.11
6	Cotton cloth	2.22	2.84	2.21	1.10
7	Washing soap/detergents/match	1.41	3.80	2.45	0.79
8	Personal Grooming Services	0.80	3.18	3.50	0.57
9	Liquefied Hydrocarbons	0.51	0.06	1.99	0.33
10	Education	4.88	0.09	0.31	0.32
11	Woolen cloth	0.84	1.86	1.76	0.30
12	Construction input items	0.38	5.26	3.18	0.28
13	stationery	0.35	8.29	3.32	0.26
14	Household equipments	1.00	2.57	0.82	0.18
15	Mechanical services	0.43	1.10	1.79	0.16
<b>Total</b>		<b>44.26</b>			<b>61.55</b>
<b>Bottom 15 Contributors</b>					
1	Personal Effects n.e.c.	0.94	3.01	-0.53	-0.15
2	Motor vehicle tax	0.05	0.00	0.00	0.00
3	Gas charges	1.08	0.00	0.00	0.00
4	Woolen readymade garments	0.43	0.00	0.00	0.00
5	Water supply	0.53	0.00	0.00	0.00
6	Therapeutic Appliances and	0.01	0.20	0.00	0.00
7	Accommodation Services	0.13	0.07	0.00	0.00
8	Dental services	0.02	0.93	0.00	0.00
9	Newspapers	0.07	0.84	0.00	0.00
10	Postal services	0.02	11.99	0.00	0.00
11	Hospitals services	0.57	1.58	0.00	0.00
12	Carpets	0.03	3.03	0.21	0.00
13	Major tools & equipments	0.01	3.56	0.92	0.00
14	Doctor (MBBS) clinic fee	0.40	1.40	0.02	0.00
15	Cleaning and laundering	0.07	2.40	0.16	0.00
<b>Total</b>		<b>4.36</b>			<b>-0.14</b>

**Table A10: Top Ten Contributors to Rural CPI Inflation (YoY) in July 2022**

Items/ Contributors	Weights	YoY Change		Weighted Contribution (%)	
		Jul-21	Jul-22		
<b>A. Ranked by Weighted Contribution</b>					
1	Vegetable Ghee	2.38	30.41	82.22	10.21
2	Motor Fuels	2.49	15.27	99.19	10.06
3	Electricity Charges	3.44	21.72	86.72	9.90
4	Milk Fresh	10.38	9.36	21.51	7.77
5	Wheat	3.47	9.22	38.30	5.15
6	Readymade Food	3.80	10.21	29.25	4.39
7	Solid Fuel	4.48	8.95	21.22	3.39
8	Chicken	1.46	-11.56	60.88	2.97
9	Transport Services	1.80	2.95	49.10	2.88
10	Wheat Flour	3.43	13.29	21.51	2.79
<b>Total</b>		<b>37.13</b>			<b>59.51</b>
<b>B. Ranked by Percentage Change</b>					
1	Onions	0.90	2.59	100.03	2.13
2	Motor Fuels	2.49	15.27	99.19	10.06
3	Pulse Masoor	0.21	1.62	90.46	0.53
4	Electricity Charges	3.44	21.72	86.72	9.90
5	Cooking Oil	0.60	33.43	82.70	2.53
6	Vegetable Ghee	2.38	30.41	82.22	10.21
7	Mustard Oil	0.01	33.23	75.71	0.04
8	Gram Whole	0.11	7.94	74.44	0.27
9	Chicken	1.46	-11.56	60.88	2.97
10	Liquefied Hydrocarbons	1.00	31.13	51.96	2.04
<b>Total</b>		<b>12.60</b>			<b>40.68</b>
<b>C. Ranked by Weights</b>					
1	Milk Fresh	10.38	9.36	21.51	7.77
2	House Rent	8.61	6.05	5.90	1.80
3	Solid Fuel	4.48	8.95	21.22	3.39
4	Readymade Food	3.80	10.21	29.25	4.39
5	Wheat	3.47	9.22	38.30	5.15
6	Electricity Charges	3.44	21.72	86.72	9.90
7	Wheat Flour	3.43	13.29	21.51	2.79
8	Cotton Cloth	2.84	7.57	13.74	1.66
9	Motor Fuels	2.49	15.27	99.19	10.06
10	Vegetable Ghee	2.38	30.41	82.22	10.21
<b>Total</b>		<b>45.32</b>			<b>57.12</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 26.9 percent in July 2022.

**Table A11: Top Ten Contributors to Rural CPI Inflation (MoM) in July 2022**

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Jun-22	Jul-22		
<b>A. Ranked by Weighted Contribution</b>					
1	Electricity Charges	3.44	51.80	39.35	31.88
2	Motor Fuels	2.49	40.05	7.57	7.53
3	Wheat	3.47	9.83	7.06	6.49
4	Milk Fresh	10.38	7.19	2.75	6.22
5	Fresh Vegetables	2.09	-0.33	14.78	6.05
6	Wheat Flour	3.43	-4.01	6.40	5.03
7	Potatoes	0.74	25.85	19.94	4.06
8	Rice	1.55	9.75	6.12	2.94
9	Readymade Food	3.80	5.24	2.57	2.57
10	House Rent	8.61	0.00	1.35	2.28
<b>Total</b>		<b>40.00</b>			<b>75.05</b>
<b>B. Ranked by Percentage Change</b>					
1	Electricity Charges	3.44	51.80	39.35	31.88
2	Potatoes	0.74	25.85	19.94	4.06
3	Fresh Vegetables	2.09	-0.33	14.78	6.05
4	Pulse Gram	0.28	11.14	14.59	0.85
5	Pulse Masoor	0.21	14.47	9.60	0.52
6	Eggs	0.57	19.96	9.05	1.36
7	Pulse Mash	0.15	7.13	8.23	0.21
8	Construction Input Items	0.63	8.97	7.84	1.11
9	Motor Fuels	2.49	40.05	7.57	7.53
10	Onions	0.90	8.75	7.15	1.51
<b>Total</b>		<b>11.50</b>			<b>55.08</b>
<b>C. Ranked by Weights</b>					
1	Milk Fresh	10.38	7.19	2.75	6.22
2	House Rent	8.61	0.00	1.35	2.28
3	Solid Fuel	4.48	3.71	1.08	1.10
4	Readymade Food	3.80	5.24	2.57	2.57
5	Wheat	3.47	9.83	7.06	6.49
6	Electricity Charges	3.44	51.80	39.35	31.88
7	Wheat Flour	3.43	-4.01	6.40	5.03
8	Cotton Cloth	2.84	1.42	1.11	0.80
9	Motor Fuels	2.49	40.05	7.57	7.53
10	Vegetable Ghee	2.38	17.16	0.88	1.04
<b>Total</b>		<b>45.32</b>			<b>64.94</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 4.2 percent in July 2022.



**Table A12: Top and Bottom Fifteen Contributors to Rural CPI Inflation (YoY) in July 2022**

Items/ Contributors	Weights	YoY Change		Weighted Contribution (%)	
		Jul-21	Jul-22		
<b>A. Ranked by Weighted Contribution</b>					
1	Vegetable Ghee	2.38	30.41	82.22	10.21
2	Motor Fuels	2.49	15.27	99.19	10.06
3	Electricity Charges	3.44	21.72	86.72	9.90
4	Milk Fresh	10.38	9.36	21.51	7.77
5	Wheat	3.47	9.22	38.30	5.15
6	Readymade Food	3.80	10.21	29.25	4.39
7	Solid Fuel	4.48	8.95	21.22	3.39
8	Chicken	1.46	-11.56	60.88	2.97
9	Transport Services	1.80	2.95	49.10	2.88
10	Wheat Flour	3.43	13.29	21.51	2.79
11	Cooking Oil	0.60	33.43	82.70	2.53
12	Fresh Vegetables	2.09	-5.61	38.92	2.49
13	Rice	1.55	7.94	31.09	2.28
14	Fresh Fruits	1.45	-13.45	45.99	2.26
15	Onions	0.90	2.59	100.03	2.13
<b>Total</b>		<b>43.72</b>			<b>71.20</b>
<b>Bottom 15 Contributors</b>					
1	Sugar	2.03	21.46	-13.78	-1.16
2	Condiments And Spices	1.49	-3.43	-9.44	-0.66
3	Gur	0.15	9.54	-1.11	-0.01
4	Motor Vehicle Tax	0.02	3.86	-9.07	-0.01
5	Pulse Moong	0.25	-22.33	-0.55	0.00
6	Postal Services	0.01	0.00	0.00	0.00
7	Newspapers	0.02	2.40	0.10	0.00
8	Garbage Collection	0.01	8.74	9.60	0.00
9	Water Supply	0.06	2.23	1.63	0.01
10	Dental Services	0.02	7.84	9.61	0.01
11	Communication Services	1.65	0.78	0.16	0.01
12	Dessert Preparation	0.01	9.05	16.43	0.01
13	Ice Cream	0.06	10.26	4.39	0.01
14	Accommodation Services	0.14	0.03	3.64	0.01
15	Cleaning And Laundering	0.02	6.39	26.18	0.02
<b>Total</b>		<b>5.94</b>			<b>-1.76</b>

**Table A13: Top and Bottom Fifteen Contributors to Rural CPI (MoM) Inflation in July 2022**

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Jun-22	Jul-22		
<b>A. Ranked by Weighted Contribution</b>					
1	Electricity Charges	3.44	51.80	39.35	31.88
2	Motor Fuels	2.49	40.05	7.57	7.53
3	Wheat	3.47	9.83	7.06	6.49
4	Milk Fresh	10.38	7.19	2.75	6.22
5	Fresh Vegetables	2.09	-0.33	14.78	6.05
6	Wheat Flour	3.43	-4.01	6.40	5.03
7	Potatoes	0.74	25.85	19.94	4.06
8	Rice	1.55	9.75	6.12	2.94
9	Readymade Food	3.80	5.24	2.57	2.57
10	House Rent	8.61	0.00	1.35	2.28
11	Chicken	1.46	-11.10	4.82	1.91
12	Tea	1.26	0.00	6.47	1.70
13	Transport Services	1.80	15.77	3.71	1.65
14	Onions	0.90	8.75	7.15	1.51
15	Cigarettes	1.24	5.51	5.46	1.41
<b>Total</b>		<b>46.66</b>			<b>83.23</b>
<b>Bottom 15 Contributors</b>					
1	Fresh Fruits	1.45	-3.54	-5.11	-2.05
2	Tomatoes	0.51	27.70	-13.44	-1.66
3	Cooking Oil	0.60	18.27	-0.77	-0.23
4	Mustard Oil	0.01	13.24	-0.04	0.00
5	Woolen Readymade Garments	0.54	0.00	0.00	0.00
6	Water Supply	0.06	0.00	0.00	0.00
7	Motor Vehicle Tax	0.02	0.00	0.00	0.00
8	Postal Services	0.01	0.00	0.00	0.00
9	Text Books	0.50	0.00	0.00	0.00
10	Newspapers	0.02	0.10	0.00	0.00
11	Ice Cream	0.06	0.44	0.00	0.00
12	Cleaning And Laundering	0.02	5.14	0.00	0.00
13	Accommodation Services	0.14	3.64	0.00	0.00
14	Dental Services	0.02	0.26	0.85	0.00
15	Garbage Collection	0.01	1.08	2.48	0.00
<b>Total</b>		<b>3.97</b>			<b>-3.94</b>

**Table A14: Top and Bottom Fifteen Contributors to MoM Rural CPI Food Inflation in July 2022**

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Jun-22	Jul-22		
<b>A. Ranked by Weighted Contribution</b>					
1	Wheat	3.47	9.83	7.06	6.49
2	Milk fresh	10.38	7.19	2.75	6.22
3	Fresh Vegetables	2.09	-0.33	14.78	6.05
4	Wheat Flour	3.43	-4.01	6.40	5.03
5	Potatoes	0.74	25.85	19.94	4.06
6	Rice	1.55	9.75	6.12	2.94
7	Readymade Food	3.80	5.24	2.57	2.57
8	Chicken	1.46	-11.10	4.82	1.91
9	Tea	1.26	0.00	6.47	1.70
10	Onions	0.90	8.75	7.15	1.51
11	Cigarettes	1.24	5.51	5.46	1.41
12	Eggs	0.57	19.96	9.05	1.36
13	Vegetable ghee	2.38	17.16	0.88	1.04
14	Pulse Gram	0.28	11.14	14.59	0.85
15	Condiments and Spices	1.49	2.88	2.33	0.76
<b>Total</b>		<b>35.04</b>			<b>43.91</b>
<b>Bottom 15 Contributors</b>					
1	Fresh fruits	1.45	-3.54	-5.11	-2.05
2	Tomatoes	0.51	27.70	-13.44	-1.66
3	Cooking oil	0.60	18.27	-0.77	-0.23
4	Mustard oil	0.01	13.24	-0.04	0.00
5	Ice Cream	0.06	0.44	0.00	0.00
6	Honey	0.03	0.00	0.73	0.00
7	Dry fruits	0.25	0.76	0.22	0.01
8	Dessert Preparation	0.01	3.49	5.10	0.01
9	Milk powder	0.11	1.94	0.82	0.02
10	Gur	0.15	0.55	0.93	0.03
11	Beans	0.09	4.20	1.88	0.05
12	Pan Prepared	0.04	8.28	5.86	0.07
13	Butter	0.33	1.54	0.97	0.08
14	Nimco	0.08	6.74	4.66	0.09
15	Fish	0.26	0.00	1.81	0.09
<b>Total</b>		<b>3.99</b>			<b>-3.49</b>

**Table A15: Top and Bottom Fifteen Contributors to MoM Rural CPI Non-Food Inflation in July 2022**

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Jun-22	Jul-22		
<b>A. Ranked by Weighted Contribution</b>					
1	Electricity Charges	3.44	51.80	39.35	31.88
2	Motor Fuels	2.49	40.05	7.57	7.53
3	House Rent	8.61	0.00	1.35	2.28
4	Transport Services	1.80	15.77	3.71	1.65
5	Liquefied Hydrocarbons	1.00	4.43	4.62	1.39
6	Personal Grooming Services	1.54	3.70	3.30	1.26
7	Construction Input Items	0.63	8.97	7.84	1.11
8	Solid Fuel	4.48	3.71	1.08	1.10
9	Cotton Cloth	2.84	1.42	1.11	0.80
10	Household Equipments	1.28	2.74	2.38	0.72
11	Washing Soaps, Detergents and	1.70	3.80	1.72	0.68
12	Marriage Hall Charges	2.25	2.47	1.49	0.67
13	Tailoring	1.30	3.25	2.03	0.61
14	Appliances/Articles/Products for	2.27	1.37	1.33	0.60
15	Education	2.13	0.87	1.43	0.60
<b>Total</b>		<b>37.76</b>			<b>52.88</b>
<b>Bottom 15 Contributors</b>					
1	Postal Services	0.01	0.00	0.00	0.00
2	Motor Vehicle Tax	0.02	0.00	0.00	0.00
3	Woolen Readymade Garments	0.54	0.00	0.00	0.00
4	Water Supply	0.06	0.00	0.00	0.00
5	Text Books	0.50	0.00	0.00	0.00
6	Newspapers	0.02	0.10	0.00	0.00
7	Cleaning and Laundering	0.02	5.14	0.00	0.00
8	Accommodation Services	0.14	3.64	0.00	0.00
9	Dental Services	0.02	0.26	0.85	0.00
10	Garbage Collection	0.01	1.08	2.48	0.00
11	Medical Tests	0.40	0.99	0.07	0.01
12	Major Tools and Equipments	0.03	2.39	1.35	0.01
13	Communication Services	1.65	0.00	0.16	0.04
14	Hospitals Services	1.01	1.09	0.19	0.04
15	Dopatta	0.21	1.98	0.88	0.04
<b>Total</b>		<b>4.63</b>			<b>0.13</b>

Table A16: Distribution of Price Changes (YoY) - Selected Urban CPI Items: July 2022

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	Ginger (Adrak), Chilies Powder National 200 Gm Packet, Sugar Refined, Cardamom Small (Average Quality), Pulse Moong (Washed), Cumin Seed (Zeera) White National 50 Gm Packet,	Coriander Seed Powder National 200 Gm Packet, Ice Cream Walls Cup (Large Size), Jam-E-Shireen Standard Size (800 ML), Pepper Black National 50 Gm Packet, Gur (Average Quality),	Tomatoes, Tomato Ketchup Mitchells/National 1 Kg Polybag, Powdered Milk Nido 390 Gm Polybag, Almonds (Badam) Kaghazi With Shell (Average Quality),	Potatoes, Fish Rahu (Medium Size), Wheat Flour Bag, Milk Tetra Pack 1 Litre (Milk Pak/Haleeb/Olpers), Cold Drink (Pepsi/Coca-Cola) 1.5 Liter Bottle, Cucumber (Kheera), Mineral Water Nestle
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,		Pullover Gents Oxford/Bonanza, Linen, Ladies (Average Quality), Full Pant Boy Length 24"/26", Shirt Boy Length 24"/26", Dopatta Cotton (Average Quality), Awami Suit Gents Wash & Wear (Average Quality), Dopatta Georgette (Average Quality), Women Shalwar Kameez (Average Quality),	Pant Cloth Wash & Wear (Average Quality), Tailoring Charges Pant (Men), Lawn Printed Gul Ahmed/Al Karam, Chaddar (Wash-N-Wear) (2X2.5 Meter), Vest "Baniyan" For Men Average Quality, Tailoring Charges Awami Suit (Male), Pullover Ladies Oxford/Bonanza, Shoe Repair Full Sole, School Uniform Girls (Kameez & Shalwar) 24"/26", Brassier
Housing, Water, Elec, Gas & other Fuels	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 , Gas Charges Above 13.4876 Mmbtu, Gas Charges Combined,	Water Charges Per House,	House Rent Combined, Painter Wage Rate,	Bricks New 1St Class, Synthetic Enamel Ici Balti 3.64 Litre, Mason Wage Rate, Plumber Wage Rate, Firewood Whole, Charges For Refuse/Waste Collection, Electrician Charges, Cement Blocks (6"X8"X12"), Unskilled Labor Wage Rate, Sand (Black Pit), Bajri, Lpg 11.67 Kg
Furnishing & Household Equip. Maintenance etc		Bed Sheet Double With Two Pillow Covers (Superior Quality),	Boot Polish Cherry/Kiwi 42 MI, Finis 400 MI Bottle, Phenyl Tyfon/Finis 2.75 Litre Bottle, Blanket Single (Sn), Bed Sheet Single (Superior Quality), Water Set (Omroc) 6 Glasses + Jug, Dining Table Wit Glass Top And Six Chairs	Readymade Quilt (3 Kg), Plain Carpet, Match Box, Dinner Set Plastic 72 Pieces Super Quality, Chair Plastic (Chairman) (Average Quality), Cleanser Powder Vim 900 Gm Polybag, Sofa Set Five Seater, Household Servant Female Part Time, Energy Saver Philips 14 Watt, Air Cooler
Health	Hydryllin Syrup 120 MI Bottle,	Sugar Test (Random/Fasting) Charges Of Both, Ventolin Tablets 2 Mg, Blood Test (Cp) Charges, Gynecologist Fee Per Visit,	Electronic Bp Checking Apparatus, Dental Surgeon Fee Per Visit, Glucometer, Cost Of Surgery (C-Section), Amoxil Capsule 250 Mg, Physiotherapist Fee Per Visit, Dental Extraction Fee, Lederplex Syrup Bottle, Phenergan Syrup 120 MI	Flagyl Tablets 400 Mg, Daonil Tablets 5 Mg, Septran Tablets, Inderal Tablets 10 Mg, Dettol Medium Bottle, Doctor (Mbbs) Clinic Fee, Glaxose-D 400 Gm Packet, Betnovate-N Ointment 10 Gm Tube, Entox Tablets, Urine Test (Dr) Charges, Johar Joshanda Instant (Sachet) Packet,
Transport	Car Suzuki 800 Cc Without Ac, Car Tax 800 Cc To 1500 Cc,			Motorcycle Service Charges, Car Toyota 1300 Cc Xli, Car Service Charges, Train Fare Business Class Per Person, Tire Car Mehran Tubeless (General), Tire Motorcycle Cd 70 (Back Wheel), Tire Car Puncture Charges, Mobil Oil (Havoline 20W-50), Train Fare Ac Sleeper Per Person,
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),	English Book Ba/B.Sc, Urdu Book Ba/B.Sc, English Book Class Vi, Cable Charges,	Akhbar-E-Jehan Weekly, Mathematics Book Class Xi (Text Book Board), Urdu Book Class Ix And X (Text Book Board), Mathematics Book Class Ix And X (Text Book Board), Personal Computer With Led Monitor (17")	Mathematics Book Class V (Text Book Board), English Book Class Xi Complete Set, Led Sony/Samsung 32" Colored, English Book Class Ix And X, Urdu Book Class V (Text Book Board), Laptop Dell/HP/Acer Core I5, Display (14'-15'), Pen Ink Dollar 57 MI Bottle, Newspaper
Education		Government College Fee First Year, Government University Fee M.S.C / M.A., Coaching Fee For Class Xi/Xii Science Group, Coaching Fee For Class Ix/X Science Group, Coaching Fee For	Tuition Fee Private University M.Sc./M.A, Government Medical College/University Tuition Fee For Mbbs (1St Year),	Private Engineering University Tuition Fee For Be (1St Year), Private School Fee English Medium Average Standard (Class V), Private School Fee English Medium Average Standard (Class Vi), Private
Restaurant & Hotels		Government Hostel Accommodation Fee For Intermediate College Per Student,		Pizza Chicken Medium Size (Average Quality), Marriage Hall Charges With Furniture, Chicken Roast (Full) (Average Quality), Cooked Chicken At Average Hotel, Seekh Kabab (Beef) (Average Quality), Marriage Hall Service Charges
Miscellaneous		Purse Ladies Medium Size (Average Quality), Wall Clock Quartz (Average Quality),	Lipstick Swiss Miss/Medora (Medium), Blade Treet Ordinary (10 No. Packet), Silver Tezabi 24 Caratt, Shampoo Sun Silk/Pantene 90 MI Bottle, Nail Polish Swiss Miss/Medora (Medium), Artificial Jewelry (Locket Set) (Average	Suitcase Ragzine (24"X16"X6") (Average Quality), Toilet Soap Lux 75 Gm, Hair Oil (Kala Kola Hair Tonic), Shaving Cream (Touchme Large/Admiral), Talcum Powder Viceroy/Black Cat Large Size, Hair Removing Cream (Eu-Cream) 30MI Tube, Disposable Razor Gillette Blue li, Electric

Table A17: Distribution of Price Changes (YoY) - Selected Rural CPI Items: July 2022

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	Ginger (Adrak), Chilies Powder Loose, Sugar Refined, Gur (Average Quality), Pulse Moong (Washed),	Jam-E-Shireen Standard Size (800 ML), Ice Cream Walls Cup (Large Size),	Potatoes, Coriander Seed Powder Loose, Tomatoes, Powdered Milk Nido 390 Gm Polybag, Lady Finger (Bhindi),	Grapes (Angoor) (Average Quality), Fruit Juice Small Packet 250 ML, Groundnuts (Moong Phali) With Shell, Cold Drink (Pepsi/Coca-Cola) 1.5 Liter Bottle, Fish Fresh, Almonds (Badam) Kaghazi With Shell (Average Quality), Muskmelon (Kharbuza), Custard Powder Rafhan 300
Alcoholic Beverages & Tobacco				Cigarettes Gold Leaf 20'S Packet, Tobacco Hukka Twisted, Cigarettes Capstan 20'S Packet, Chewing Tobacco (Niswar), Pan Prepared (Sweet With Beetle Nuts),
Clothing & Footwear			Footware Gents Local (Average Quality), Chaddar (Wash-N-Wear) (2X2.5 Meter), Footware Children Local (Average Quality),	Footware Ladies Local (Average Quality), Lawn Printed (Average Quality), School Uniform Boys (Pant & Shirt) 24"/26", Full Pant Boy Length 24"/26", Dopatta Georgette (Average Quality), Pullover Gents (Average Quality), School Uniform Girls (Kameez & Shalwar) 24"/26", Shoe Repair Full Sole, Shirting (Average Quality), Long Cloth, Shirt Boy Length 24"/26", Tailoring
Housing, Water, Elec, Gas & other Fuels		Water Charges Per House,	House Rent Combined, Charges For Refuse/Waste Collection,	Painter Wage Rate, Plumber Wage Rate, Mason Wage Rate, Carpenter Wage Rate, Electrician Charges, Unskilled Labor Wage Rate, Bricks New 1St Class, Firewood Whole, Coal, Sand (Black Pit), Bajri, Lpg 11.67 Kg Cylinder, Electricity Charges
Furnishing & Household Equip. Maintenance etc			Finis 400 ML Bottle, Cleanser Powder Vim 900 Gm Polybag, Boot Polish Cherry/Kiwi 42 ML,	Water Set (Omroc) 6 Glass, Blanket Single (Sn), Refrigerator Dawlance/Pel 10 Cubic Feet Double Door, Robin Blue Liquid 75 ML Bottle, Washing Machine With Spinner (Super Asia Or Similar Brand) (Sn), Bucket (Balti) Plastic Medium Size, Aluminium
Health		Hydrillin Syrup 120 ML Bottle, Blood Test (Cp) Charges,	Cost Of Surgery (C-Section), Inderal Tablets 10 Mg, X-Ray (Chest) Charges, Daonil Tablets 5 Mg, Cac 1000 Tablets Sandoz Bottle, Dental Surgeon Fee Per Visit,	Dettol Medium Bottle, Physiotherapist Fee Per Visit, Doctor (Mbbs) Clinic Fee, Amoxil Capsule 250 Mg, Johar Joshanda Instant (Sachet) Packet, Panadol Tablets Plain,
Transport	Car Tax 800 Cc To 1500 Cc, Car Suzuki 800 Cc Without Ac,			Motorcycle Service Charges, Tire Cycle, Tire Motorcycle Cd 70 (Back Wheel), Motorcycle Honda Cd 70, Tire Car Mehran Tubeless (General), Mobil Oil (Havoline 20W-50), Bicycle, Train Fare Economy Per Person, Air Fare Economy Class Per
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,	English Books Class Vi, English Books Class Xi Complete Set, Personal Computer With Led Monitor (17") Dell/Hp/Acer Core I5, Led Sony/Samsung 32" Colored, Urdu Books Class Ix And X (Text Book Board), Cable Charges	English Books Class Ix And X, Urdu Books Class V (Text Book Board), Ballpoint Pen Local, Exercise Book (With Lines) 80 To 100 Pages, Pets Feed, Lead Pencil Goldfish,
Education			Private School Fee English Medium Average Standard (Class Vi), Private School Fee English Medium Average Standard (Class I), Private School Fee English Medium Average Standard (Class V), Vocational Training Basic Computer	Coaching Fee For Class Ix/X Science Group,
Restaurant & Hotels	Government Hostel Accommodation Fee For Intermediate College Per Student,			Private Hostel Accommodation Fee For Intermediate College Per Student, Chicken Biryani Full/Double, Marriage Hall Service Charges With Food (Average Meal), Chicken Roast (Full) (Average Quality), Marriage Hall Charges With Furniture,
Miscellaneous	Purse Ladies Medium Size (Average Quality),		Blade Treet Ordinary (10 No. Packet), Shampoo Sun Silk/Pantene 90 ML Bottle, Tooth Paste Colgate 75 Gm,	Disposable Razor Gillette Blue li, Shaving Cream (Touchme Large/Admiral), Tooth Brush (Shield), Suitcase Ragzine (24"X16"X6") (Average Quality), Talcum Powder Viceroy/Black Cat, Hair Color (Kala Kola), Toilet Soap Lux 75 Gm, Trunk Medium Size (Average Quality), Artificial

Table A18: Distribution of Price Changes (YoY) - WPI Items: July 2022

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	Stimulant & Spice Crops, Millet / Bajra,	Fish Live Fresh or Chilled, Raw Animal Materials / Wool, Fuel Wood in Logs, Edible Roots / Potatoes, Sorghum / Jowar,	Dry Fruits,	Sugar Crops, Cotton Seeds, Unmanufactured Tobacco, Rice, Fresh Fruits, Eggs, Raw Milk from Bovine Animals, Fiber Crops, Hides, Skins & Fur Skins, Raw, Other Oil Seeds, Maize, Vegetables, Wheat,
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,	Ice Cream, Blankets, Sugar Confectionary, Chocolate, Other Food Products, Bed Sheets,	Woolen Carpets, Other Leather N.E.C, Quilts, Cotton Fabrics, Woven Fabrics,	Fruit Juices, Dried Fruits & Nuts, Towels, Synthetic Carpets, Beverages, Processed Liquid Milk, Blended Yarn, Dairy Products N.E.C, Hosiery Products, Leather Without Hair, Vegetables & Fruit Juice, Cotton Yarn, Meat of Animals,
Other Transportable Goods except Metal Products, Machinery, and Equipments	Printing Paper, Hard Board, Dyeing Material, Insecticides,		Other Glass Articles, Plastic Products, Pesticides,	Ceramics & Sanitary Fixture, Medicines, Bricks, Blocks & Tiles, Timber, Matches, Soaps & Detergents, Mobil Oil, Auto Tyres, Paints & Varnishes, Glass sheets, Cement, Bed Foam, Chemicals,
Metal Product, Machinery & Equipments	Vacuum Pumps,		Steel Products, Engines & Motors,	Fridge, WashM, SewM, Fans, Iron, Radio & Television, Motor Vehicles, Bicycles, Electric Wires, Motorcycles, Pipe Fittings, Tractors, Steel Bar & Sheets, Lighting Equipments, Lathe Machines, Air Conditioners, Cultivators,

<b>Table A19: International Commodity Prices/Indices</b>				
<b>Commodity/Indices</b>	<b>Jun-21</b>	<b>Jul-21</b>	<b>Jun-22</b>	<b>Jul-22</b>
<b>Energy</b>				
Crude Oil (US\$ per barrel)*	71.8	73.3	116.8	105.1
Energy Index (2010 = 100)	93.9	98.3	170.7	168.6
<b>Food</b>				
Rice (\$/MT)	466.0	414.0	444.0	418.0
Wheat (\$/MT)##	263.5	254.7	379.9	316.7
Sugar (US cent/ pound)^	17.4	17.7	18.9	18.3
Palm Oil (\$/MT)	1,004.4	1,063.0	1,501.1	1,056.6
Soybean Oil (\$/MT)	1,518.2	1,468.3	1,751.8	1,533.4
<b>Non-Food Non-Energy</b>				
Cotton Outlook 'A' Index #^	94.5	97.7	154.2	131.0
Metal Price Index (2010 = 100)	119.0	119.3	121.8	106.1
Copper (\$/MT)	9,631.5	9,450.8	9,024.5	7,544.8
Aluminum (\$/MT)	2,446.7	2,497.6	2,563.4	2,408.4
Iron Ore (\$ cents/dry MT)	214.4	214.1	130.7	108.6
Tin (\$/MT)	32,502.6	34,020.2	31,559.3	25,395.8
Nickel (\$/MT)	17,979.6	18,818.5	25,658.6	21,481.9
Zinc (\$/MT)	2,951.9	2,947.5	3,629.7	3,105.4
Lead (\$/MT)	2,191.0	2,337.5	2,066.4	1,985.2
Uranium (\$/MT)@	32.3	32.4	49.8	47.8
DAP (\$/MT)	604.8	613.0	783.8	784.0
Urea (\$/MT)	393.3	441.5	690.0	601.0

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.

^ The measurement unit for sugar and Cotton is US cent/ pound in IMF data source, whereas it is US dollar / kg in World bank dataset. The result of two datasets can be reconciled using conversion formula: 1US \$ / kilogram = \$/MT = US\$ per metric tonne.

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

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

## Wheat, US HRW (Hard Red Winter) is not being reported by World Bank. Hence, it has been replaced with Wheat, US SRW (Soft Red Winter).

DAP: Diammonium Phosphate



**Table A20: 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	
Sep	113.90	126.86	138.32	150.74	
Oct	116.32	129.16	140.67	153.61	
Nov	116.18	130.90	141.83	158.18	
Dec	115.82	130.45	140.86	158.16	
Jan	116.12	133.04	140.56	158.78	
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	114.02	123.62	135.17	146.57	183.16
Aug	113.89	125.94	136.37	147.84	
Sep	113.55	126.52	137.99	150.42	
Oct	115.23	127.93	139.30	152.09	
Nov	114.87	129.33	140.04	156.12	
Dec	115.63	130.16	140.46	157.66	
Jan	116.41	133.37	140.92	159.18	
Feb	117.76	132.26	143.69	161.20	
Mar	120.10	132.34	144.27	162.58	
Apr	120.43	130.73	145.27	164.72	
May	121.81	131.86	146.20	166.33	
Jun	122.58	133.20	146.16	177.46	

<b>Table A21: 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	
Sep	114.49	127.72	137.53	150.08	
Oct	117.04	129.75	139.27	152.59	
Nov	116.94	131.05	140.16	156.96	
Dec	116.57	130.57	139.67	157.46	
Jan	117.07	132.77	139.45	157.56	
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	114.68	124.75	134.59	146.32	180.95
Aug	114.39	126.66	135.78	147.15	
Sep	114.18	127.43	137.25	149.81	
Oct	116.18	128.79	138.23	151.44	
Nov	115.92	129.83	138.80	155.39	
Dec	116.59	130.51	139.53	157.23	
Jan	117.40	133.16	139.87	158.03	
Feb	118.74	131.96	143.23	159.64	
Mar	120.95	132.14	143.64	160.75	
Apr	121.13	130.43	144.72	162.40	
May	122.54	131.44	145.69	163.68	
Jun	123.28	132.80	145.65	174.67	

<b>Table A22: Rural 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	113.30	122.22	136.36	147.28	186.94
Aug	112.96	124.56	136.84	148.34	
Sep	113.01	125.55	139.51	151.74	
Oct	115.23	128.28	142.79	155.15	
Nov	115.03	130.67	144.34	160.03	
Dec	114.70	130.28	142.65	159.21	
Jan	114.68	133.44	142.23	160.62	
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	113.03	121.93	136.05	146.94	186.51
Aug	113.13	124.86	137.27	148.89	
Sep	112.60	125.16	139.11	151.33	
Oct	113.81	126.65	140.92	153.08	
Nov	113.30	128.58	141.92	157.24	
Dec	114.18	129.63	141.88	158.30	
Jan	114.90	133.68	142.50	160.91	
Feb	116.28	132.73	144.39	163.54	
Mar	118.82	132.63	145.21	165.34	
Apr	119.39	131.18	146.10	168.21	
May	120.73	132.48	146.97	170.34	
Jun	121.52	133.81	146.93	181.68	

<b>Table A23: 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	100.23	100.19	100.16	100.13	100.10	100.16
Aug	100.04	99.96	99.90	99.84		99.94
Sep	100.31	100.27	100.24	100.22		100.26
Oct	100.94	100.96	100.98	101.00		100.97
Nov	101.14	101.21	101.27	101.32		101.23
Dec	100.17	100.22	100.28	100.32		100.25
Jan	99.75	99.75	99.75	99.75		99.75
Feb	99.46	99.53	99.58	99.64		99.55
Mar	99.46	99.51	99.55	99.57		99.52
Apr	99.92	99.89	99.88	99.87		99.89
May	99.37	99.36	99.34	99.34		99.35
Jun	99.23	99.16	99.08	99.01		99.12

<b>Table A24: 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	100.23	100.16	100.10	100.06	100.01	100.11
Aug	100.17	100.09	100.03	99.98		100.07
Sep	100.27	100.23	100.20	100.18		100.22
Oct	100.74	100.75	100.75	100.76		100.75
Nov	100.88	100.94	100.98	101.01		100.95
Dec	99.99	100.05	100.10	100.15		100.07
Jan	99.71	99.71	99.70	99.70		99.71
Feb	99.44	99.52	99.57	99.62		99.54
Mar	99.45	99.50	99.55	99.58		99.52
Apr	100.14	100.13	100.13	100.14		100.13
May	99.65	99.65	99.66	99.66		99.66
Jun	99.38	99.32	99.25	99.18		99.28

**Table A25: Rural CPI Monthly & Average Seasonal Factors**

<b>Period</b>	<b>FY19</b>	<b>FY20</b>	<b>FY21</b>	<b>FY22</b>	<b>FY23</b>	<b>Average</b>
Jul	100.24	100.24	100.23	100.23	100.23	100.23
Aug	99.85	99.76	99.69	99.63		99.73
Sep	100.36	100.32	100.29	100.27		100.31
Oct	101.25	101.29	101.32	101.35		101.30
Nov	101.53	101.63	101.71	101.77		101.66
Dec	100.46	100.51	100.55	100.57		100.52
Jan	99.81	99.80	99.81	99.82		99.81
Feb	99.48	99.55	99.61	99.66		99.57
Mar	99.48	99.52	99.55	99.56		99.53
Apr	99.58	99.54	99.50	99.47		99.52
May	98.94	98.91	98.88	98.86		98.90
Jun	98.99	98.92	98.85	98.77		98.88

<b>Table A26: 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	
Sep	-0.03	0.77	1.53	2.12	
Oct	2.12	1.81	1.70	1.90	
Nov	-0.12	1.35	0.82	2.98	
Dec	-0.31	-0.34	-0.68	-0.01	
Jan	0.26	1.99	-0.21	0.39	
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	0.55	0.85	1.48	0.28	3.21
Aug	-0.12	1.87	0.89	0.87	
Sep	-0.29	0.46	1.19	1.74	
Oct	1.48	1.12	0.95	1.12	
Nov	-0.31	1.09	0.53	2.65	
Dec	0.66	0.64	0.30	0.98	
Jan	0.67	2.47	0.32	0.97	
Feb	1.16	-0.83	1.97	1.27	
Mar	1.99	0.06	0.40	0.86	
Apr	0.27	-1.21	0.70	1.31	
May	1.15	0.86	0.64	0.98	
Jun	0.63	1.02	-0.03	6.69	

<b>Table A27: 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	
Sep	-0.08	0.75	1.26	2.01	
Oct	2.23	1.59	1.27	1.67	
Nov	-0.09	1.00	0.64	2.86	
Dec	-0.32	-0.37	-0.35	0.32	
Jan	0.43	1.68	-0.16	0.06	
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	0.61	1.19	1.35	0.46	3.59
Aug	-0.25	1.53	0.88	0.57	
Sep	-0.18	0.61	1.09	1.81	
Oct	1.75	1.07	0.71	1.09	
Nov	-0.22	0.81	0.42	2.61	
Dec	0.57	0.52	0.52	1.19	
Jan	0.70	2.03	0.24	0.51	
Feb	1.14	-0.90	2.40	1.02	
Mar	1.86	0.14	0.29	0.69	
Apr	0.14	-1.29	0.75	1.03	
May	1.16	0.77	0.67	0.79	
Jun	0.61	1.03	-0.03	6.71	

<b>Table A28: 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	
Sep	0.04	0.79	1.95	2.29	
Oct	1.96	2.17	2.35	2.25	
Nov	-0.17	1.86	1.09	3.15	
Dec	-0.29	-0.30	-1.17	-0.51	
Jan	-0.02	2.43	-0.29	0.89	
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	0.47	0.34	1.67	0.00	2.66
Aug	0.09	2.40	0.90	1.33	
Sep	-0.46	0.24	1.34	1.64	
Oct	1.07	1.19	1.31	1.15	
Nov	-0.45	1.52	0.71	2.72	
Dec	0.78	0.82	-0.03	0.68	
Jan	0.63	3.13	0.44	1.65	
Feb	1.21	-0.71	1.32	1.63	
Mar	2.18	-0.07	0.57	1.10	
Apr	0.47	-1.09	0.62	1.73	
May	1.12	0.99	0.59	1.27	
Jun	0.65	1.00	-0.02	6.66	

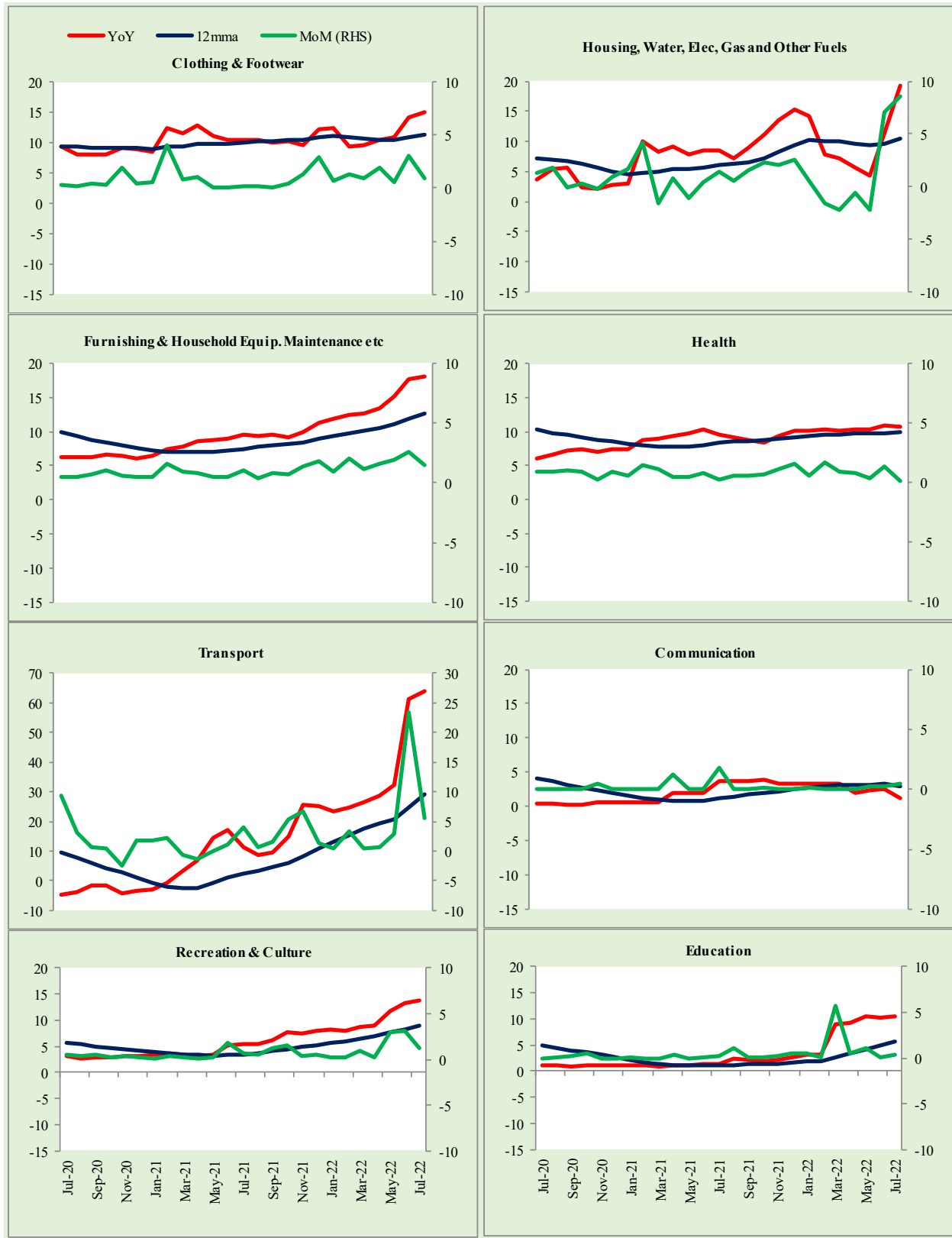


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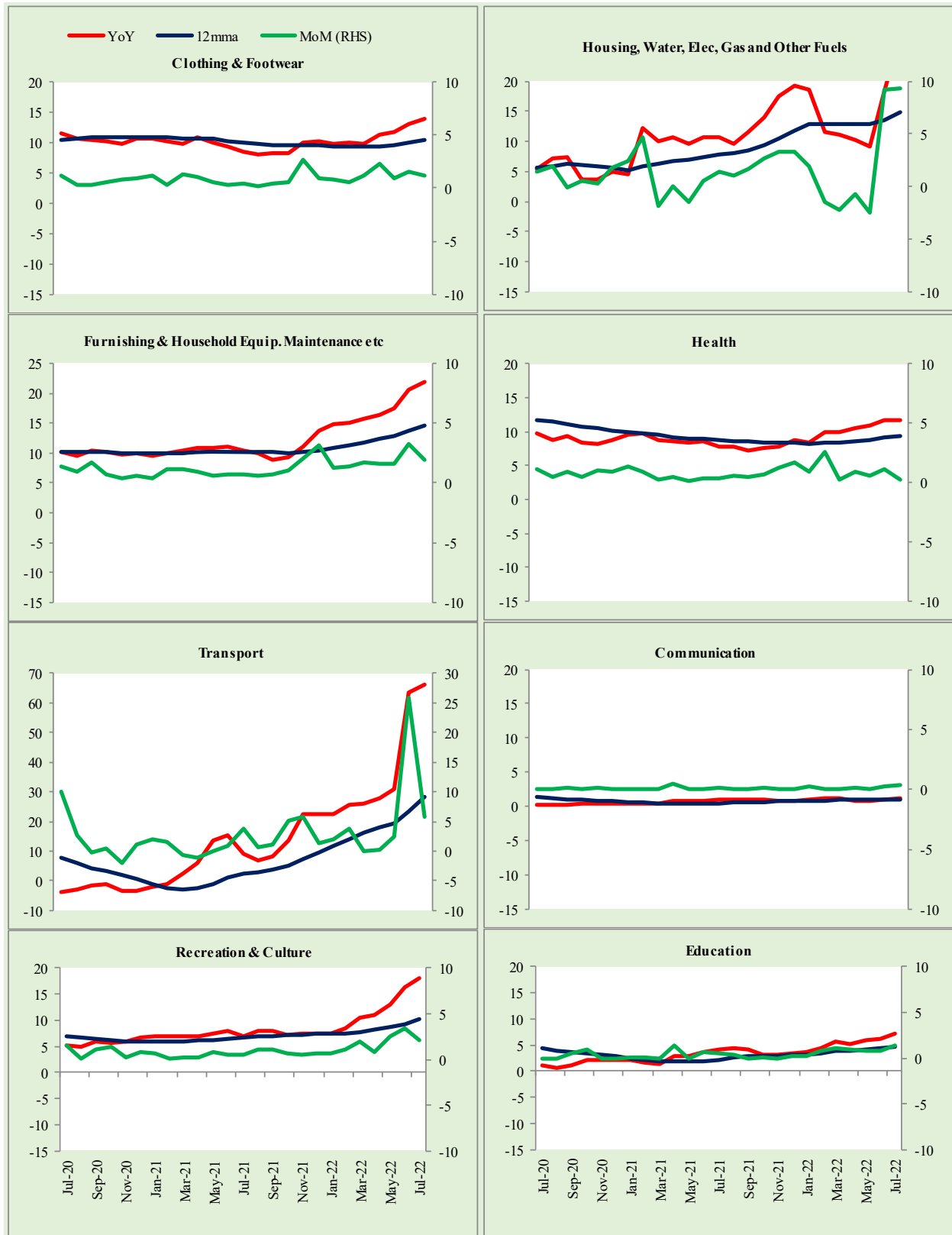
Figure A1: National CPI Non-food Inflation (YoY, 12MMA, MoM in percent)



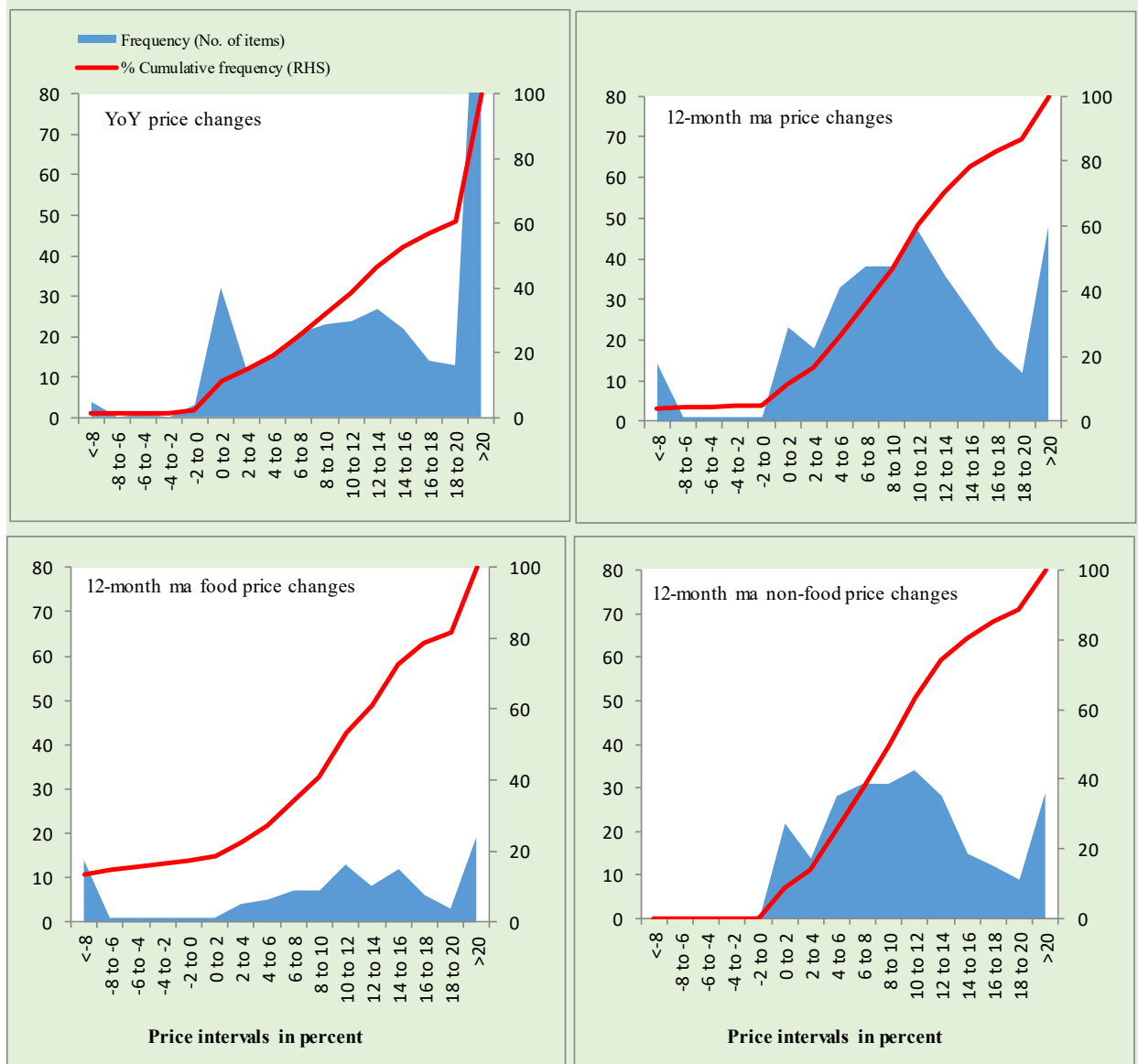
Figure A2: Urban CPI Non-food Inflation (YoY, 12MMA, MoM in percent)



**Figure A3: Rural CPI Non-food Inflation (YoY, 12MMA, MoM in percent)**

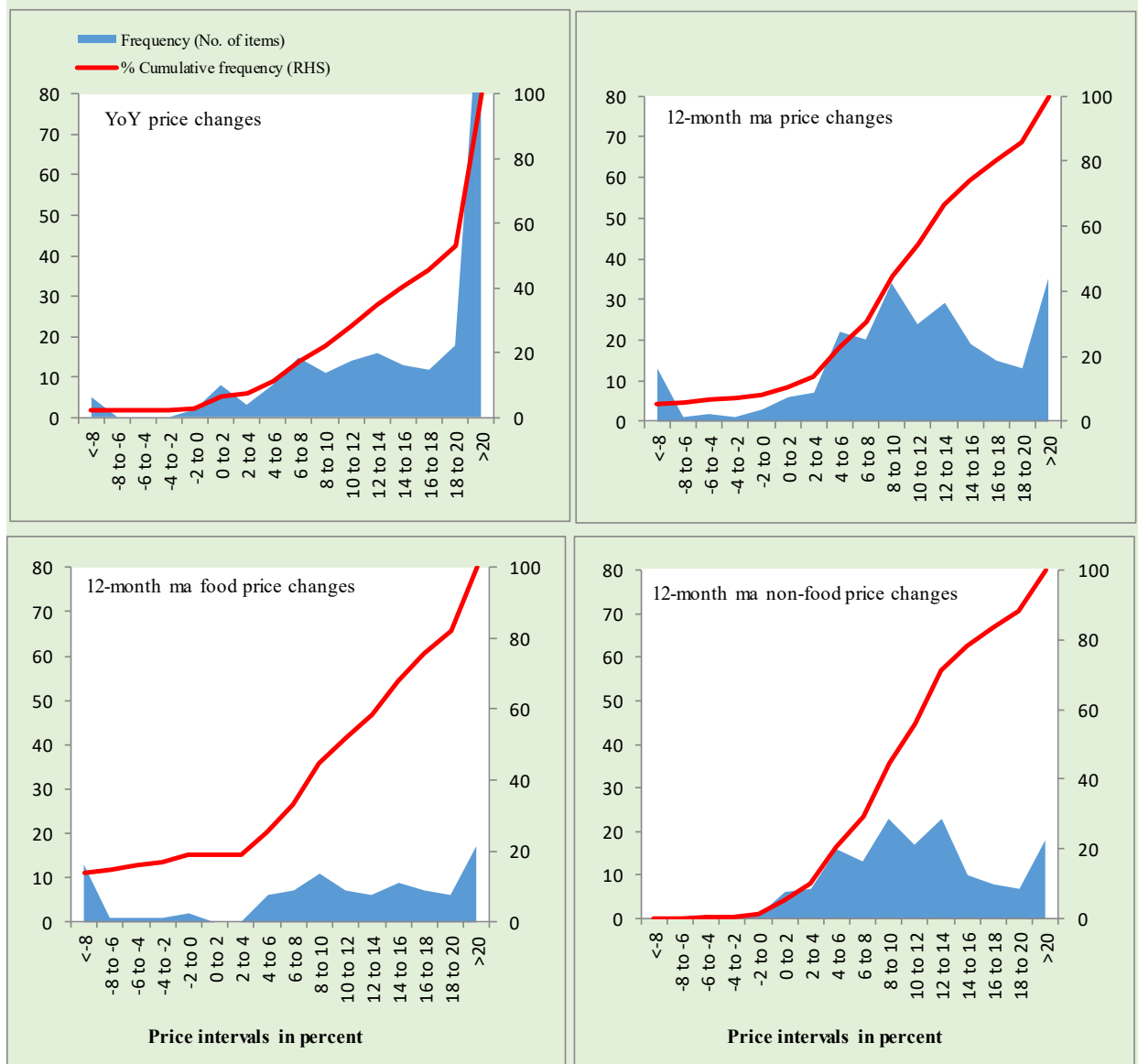


**Figure A4: Frequency Distribution of Price Changes of Urban CPI Items (YoY)**



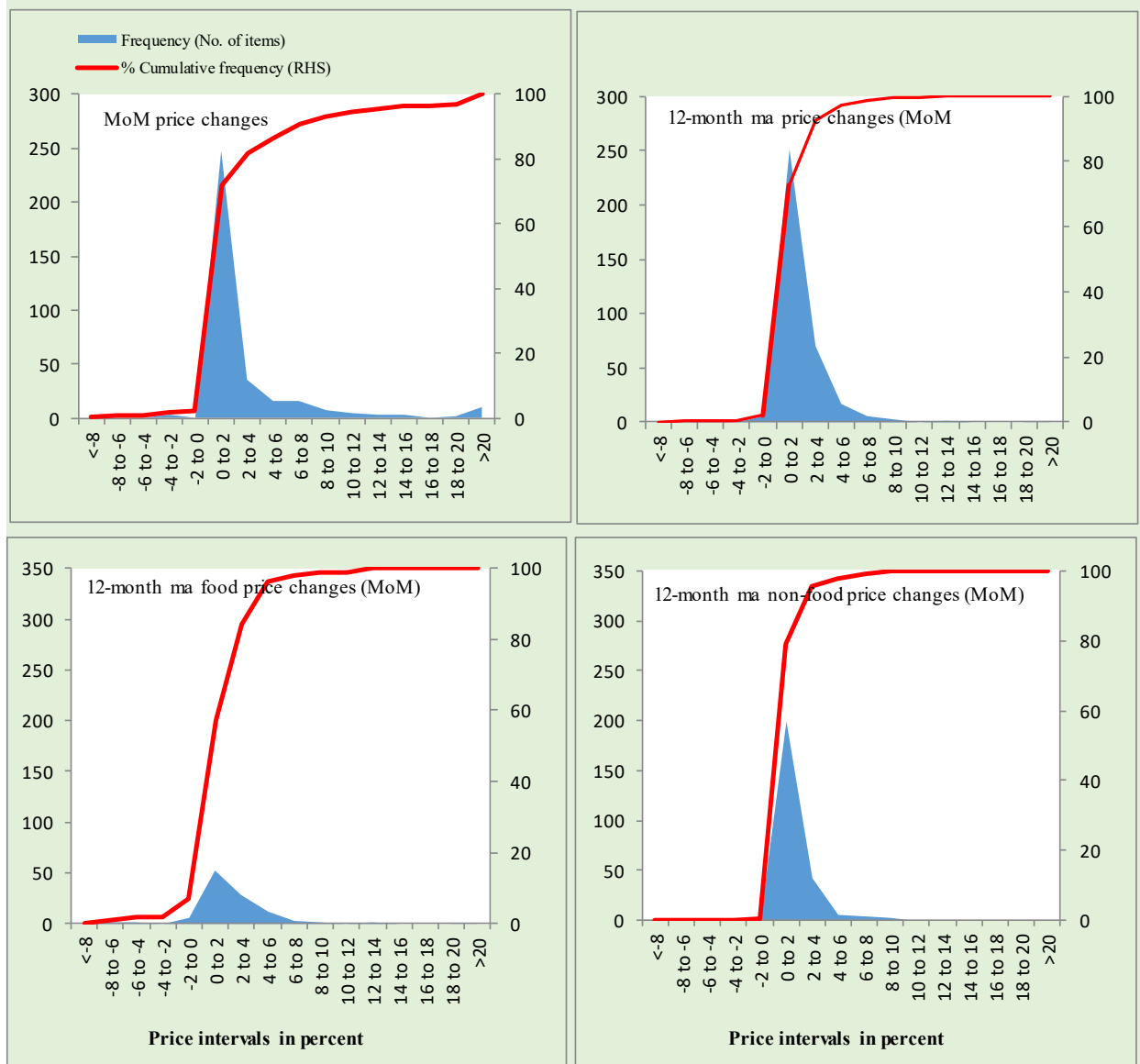
Total Items in CPI Basket (356), Food Items (103) and non-Food Items (253).

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



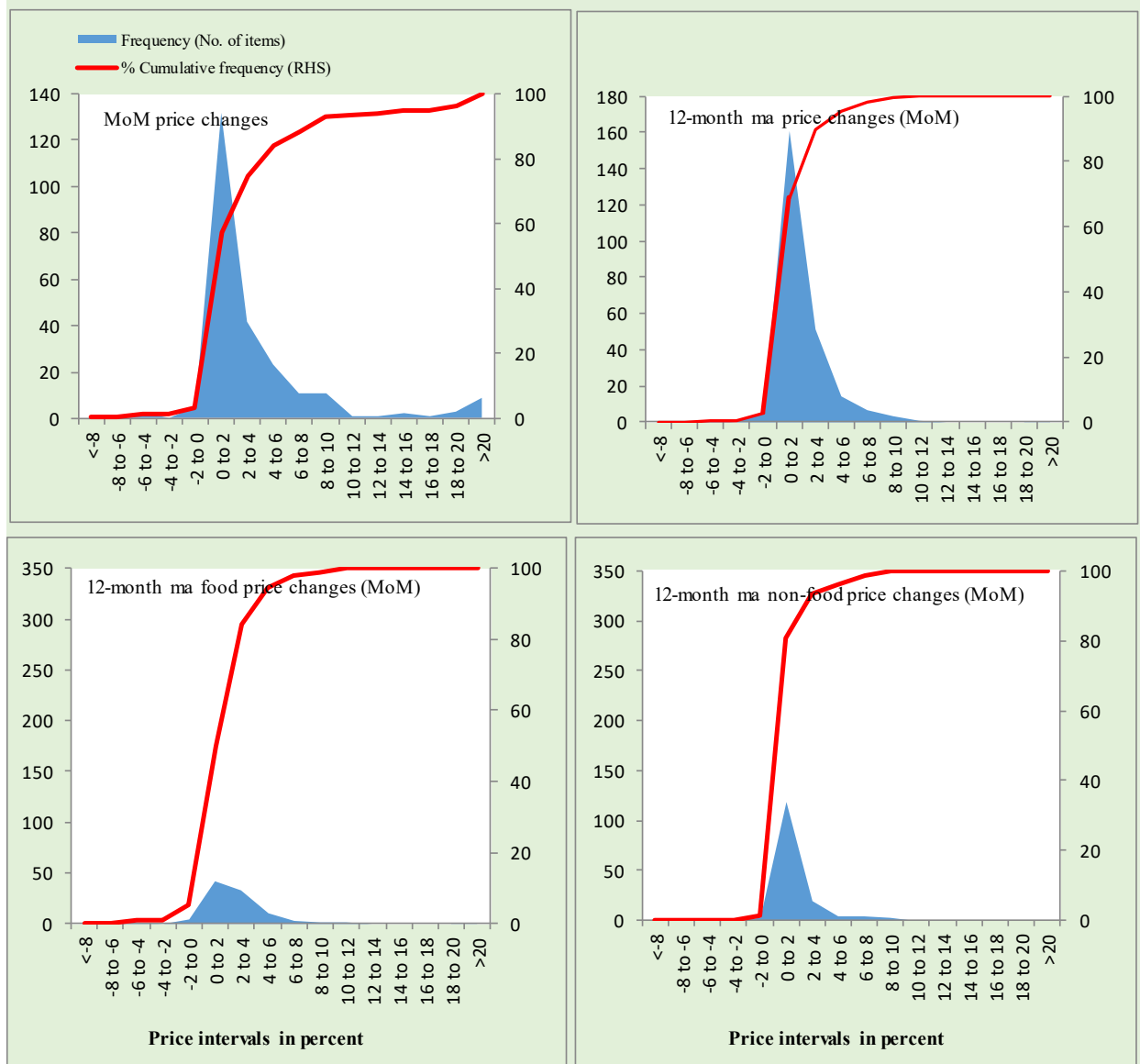
Total Items in CPI Basket (244), Food Items (94) and non-Food Items (150).

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



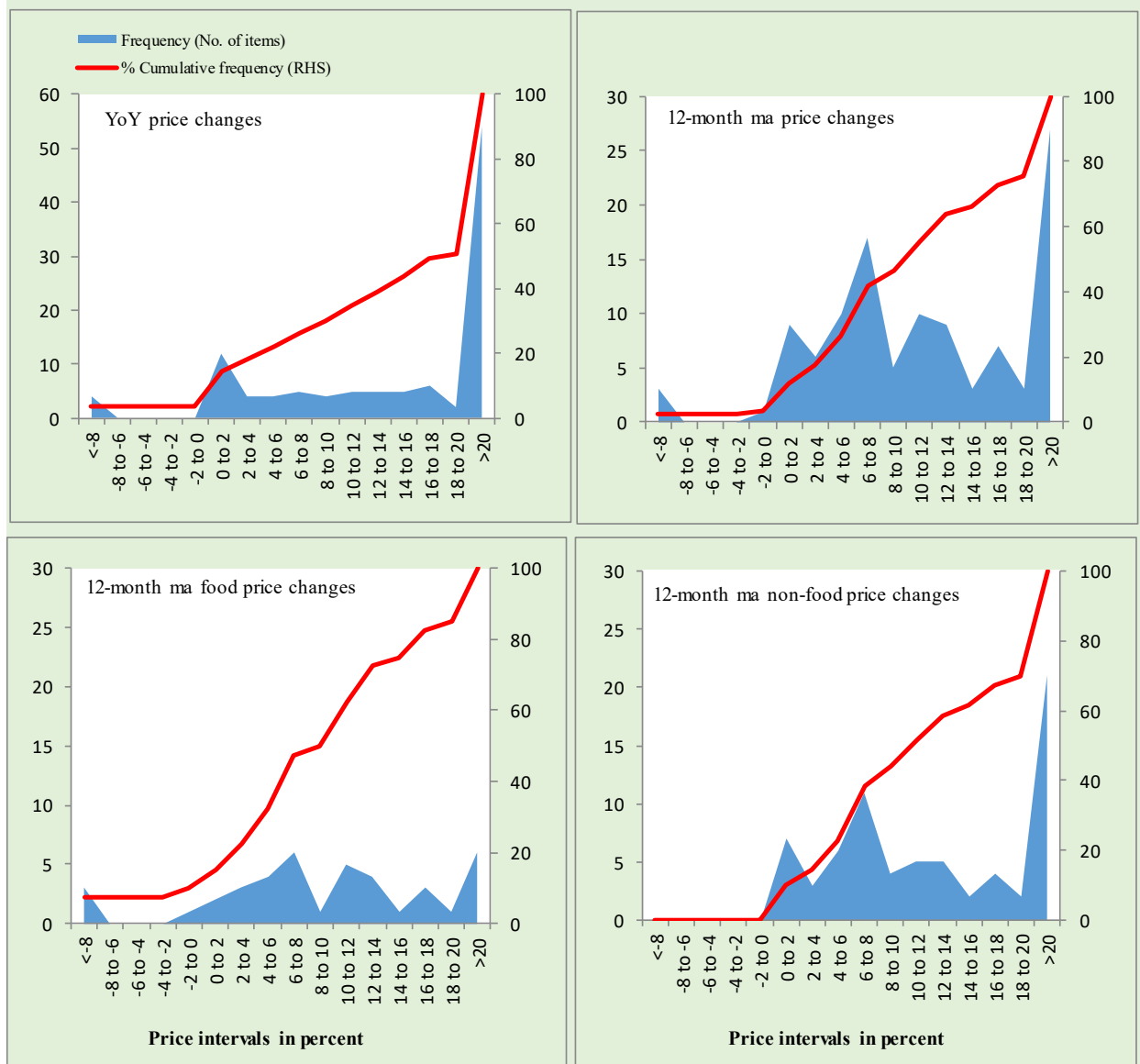
Total Items in CPI Basket (356), Food Items (103) and non-Food Items (253).

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



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

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



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



## Technical Notes, Definitions and Methodologies

### 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 July 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 July 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>1</sup>.

Based upon item level prices data from July 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>2</sup> suggests that IDI was a leading indicator for Pakistan’s YoY inflation.

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<sup>1</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>2</sup> Formal test shows one way ‘Granger’ causality from IDI to YoY inflation.