

Inflation Monitor

December 2021
(Base Year: 2015-16)



State Bank of Pakistan
Statistics & DWH Department

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1. Inflation in Brief

1. National CPI Inflation, increased to 12.3 percent in December 2021 from 11.5 percent in previous month and stood at 8.0 percent in the corresponding month of last year. However, on month-on-month basis (MoM), prices almost remains same in December 2021 whereas a deflation of 0.7% is observed in corresponding month of last year.
2. Urban CPI Inflation increased from 12.0 percent (on year-on-year basis) in November 2021 to 12.7 percent in December 2021. It stood at 7.0 percent during the corresponding month of last year. Urban CPI Inflation (month-on-month basis) decreased from 2.9 percent in November 2021 to 0.3 percent in December 2021 whereas a deflation of 0.3% is observed in corresponding month of last year. Seasonally adjusted month-on-month CPI inflation is recorded at 1.1 percent in December 2021 compared to 2.6 percent in the previous month.
3. Rural CPI Inflation is stood at 11.6 percent on year-on-year basis in December 2021 as compared to 10.9 percent during the previous month and 9.5 percent during the corresponding month of last year. On MoM basis, a deflation of 0.5% is observed in December 2021 as compared to an inflation of 3.1% in the previous month. Seasonally adjusted month-on-month CPI inflation recorded at 0.6 percent in December 2021 as compared to 2.6 percent in the previous month.
4. Urban Core Inflation (trimmed) on year-on-year basis increased to 10.8 percent in December 2021 from 9.8 percent in previous month and stood at 6.2 percent during the corresponding month of last year. On month-on-month basis, Urban Core Inflation (trimmed) stood at 1.1 percent in December 2021 as compared to 1.7 percent in previous month and 0.4 percent during the corresponding month of last year.
5. Rural Core Inflation (trimmed) on year-on-year basis increased to 10.3 percent in December 2021 from 9.5 percent in November 2021 and stood at 8.8 percent during the corresponding month of last year. On month-on-month basis, Rural Core Inflation (trimmed) stood at 1.0 percent in December 2021 as compared to 2.2 percent in previous month and 0.6 percent during corresponding month of last year.
6. Urban Core (Non-food, Non-energy (NFNE)) Inflation on year-on-year basis increased from 7.6 in November 2021 to 8.3 percent in December 2021 and recorded 5.6 percent during corresponding month of last year. On month-on-month basis, inflation remained same in December 2021 (i.e. 1.1 percent) as compared to previous month and recorded 0.4 percent during the corresponding month of last year.
7. Rural Core (Non-food, Non-energy (NFNE)) Inflation on year-on-year basis is recorded at 8.9 percent in December 2021 as compared to 8.2 percent in previous month and 7.7 percent during the corresponding month of last year. Whereas on month-on-month basis, it decreased from 1.8 percent in November 2021 to 1.1 percent in December 2021. It stood at 0.5 percent during the corresponding month of last year.
8. WPI Inflation on year-on-year basis decreased from 27.0 percent in November 2021 to 26.2 percent in December 2021. It stood at 5.7 percent during the corresponding month of last year. On month-on-month basis a deflation of 0.2 percent is observed in December 2021.

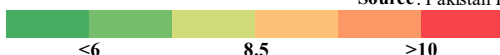
9. SPI Inflation on year-on-year basis increased to 19.3 percent in December 2021 from 17.4 percent in November 2021. During corresponding month of last year, SPI Inflation stood at 7.9 percent. On month-on-month basis, SPI Inflation stood at 0.3 percent in December 2021 as compared to 4.1 percent in the previous month whereas, a deflation of 1.3 percent is observed in 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/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 and increasing order of red (light to dark color spectrum i.e. light green to orange to brown to red) represents higher and higher inflationary pressures.

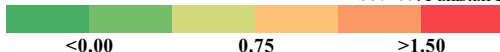
Heat-map of National, Urban and Rural CPI inflation (YoY)														
		Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21
Headline	National	8.0	5.7	8.7	9.1	11.1	10.9	9.7	8.4	8.4	9.0	9.2	11.5	12.3
	Urban	7.0	5.0	8.6	8.7	11.0	10.8	9.6	8.7	8.3	9.1	9.6	12.0	12.7
	Rural	9.5	6.6	8.8	9.5	11.3	10.9	9.7	8.0	8.4	8.8	8.7	10.9	11.6
Food	Urban	12.6	7.3	10.3	11.5	15.7	15.3	11.0	9.4	10.2	10.8	9.4	11.9	11.7
	Rural	13.4	7.2	9.1	11.1	14.1	12.8	9.8	7.3	9.1	9.1	7.2	8.6	9.0
Core	Urban	5.6	5.4	6.4	6.3	7.0	6.8	6.7	6.9	6.3	6.4	6.7	7.6	8.3
	Rural	7.7	7.8	7.7	7.3	7.7	7.6	7.3	6.9	6.2	6.2	6.7	8.2	8.9

Source: Pakistan Bureau of Statistics and SBP staff estimates

Key 

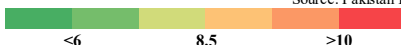
Heat-map of National, Urban and Rural CPI inflation (MoM)														
		Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21
Headline	National	-0.7	-0.2	1.8	0.4	1.0	0.1	-0.3	1.3	0.6	2.1	1.9	3.0	0.0
	Urban	-0.3	-0.2	2.3	0.3	1.3	0.2	-0.4	1.3	0.5	2.0	1.7	2.9	0.3
	Rural	-1.2	-0.3	1.1	0.5	0.6	0.0	-0.1	1.4	0.7	2.3	2.2	3.1	-0.5
Food	Urban	-2.1	-2.1	1.3	1.7	2.7	1.1	-1.9	1.5	0.5	3.6	1.5	3.9	-2.3
	Rural	-3.4	-2.2	0.2	1.5	0.9	0.2	-0.8	1.6	0.8	3.7	2.6	3.3	-3.1
Core	Urban	0.4	0.9	1.1	0.2	0.9	0.2	0.3	0.8	0.2	0.4	0.9	1.1	1.1
	Rural	0.5	1.1	0.5	0.3	0.7	0.3	0.4	0.7	0.2	0.5	1.0	1.8	1.1

Source: Pakistan Bureau of Statistics and SBP staff estimates

Key 

Heat-map of National CPI inflation (YoY)														
	Weights	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21
National	100.00	8.0	5.7	8.7	9.1	11.1	10.9	9.7	8.4	8.4	9.0	9.2	11.5	12.3
Food and Non-Alcoholic Beverages	34.58	13.3	6.7	9.7	11.6	15.9	14.8	10.5	8.2	10.0	10.2	8.3	10.5	10.3
Alcoholic Beverages, Tobacco	1.02	6.0	5.8	5.7	5.9	4.9	5.0	5.0	3.1	2.1	2.0	1.9	1.8	2.0
Clothing and Footwear	8.60	9.6	9.5	11.3	10.7	11.9	10.7	10.0	9.5	9.3	9.2	9.3	9.8	11.2
Housing, Water, Elec., Gas and Other Fuels	23.63	3.5	3.4	10.6	8.8	9.7	8.4	9.1	9.2	8.0	9.8	12.0	14.8	16.6
Furnishing and Household Equipment Maintenance	4.10	7.7	7.6	8.5	8.9	9.5	9.6	9.8	9.8	9.6	9.3	9.2	10.4	12.3
Health	2.79	8.1	8.5	9.2	8.8	9.0	9.0	9.4	8.6	8.5	8.0	8.0	8.5	9.4
Transport	5.91	-3.5	-2.6	-1.0	2.9	6.5	14.0	16.4	10.5	8.1	9.1	14.4	24.4	24.1
Communication	2.21	0.5	0.5	0.6	0.6	1.5	1.5	1.6	2.8	2.8	2.8	2.8	2.5	2.5
Recreation and Culture	1.59	4.4	4.6	4.8	4.6	4.6	4.9	6.2	5.9	6.4	6.9	7.5	7.5	7.7
Education	3.79	1.2	1.3	1.2	1.0	1.6	1.6	1.8	2.0	2.9	2.6	2.2	2.4	2.8
Restaurants and Hotels	6.92	9.9	8.9	8.0	8.1	8.2	8.6	8.8	8.5	7.3	7.8	8.3	11.0	12.6
Misc. Goods and Services	4.87	11.9	11.5	12.3	10.6	10.0	10.7	10.9	9.4	5.9	7.4	8.7	10.0	10.6

Source: Pakistan Bureau of Statistics and SBP staff estimates

Key 

Heat-map of Urban CPI inflation (YoY)														
	Weights	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21
National	100.00	7.0	5.0	8.6	8.7	11.0	10.8	9.6	8.7	8.3	9.1	9.6	12.0	12.7
Food and Non-Alcoholic Beverages	30.42	13.1	6.7	10.5	11.9	17.0	16.3	11.1	9.2	10.6	11.1	9.4	12.2	11.7
Alcoholic Beverages, Tobacco	0.85	6.6	6.2	6.3	6.9	6.0	6.1	6.1	3.8	2.8	2.6	2.1	1.9	2.1
Clothing and Footwear	8.01	8.8	8.5	12.3	11.5	12.7	11.2	10.5	10.4	10.3	10.0	10.2	9.5	12.2
Housing, Water, Elec., Gas and Other Fuels	27.03	2.8	2.9	10.0	8.2	9.3	7.9	8.4	8.5	7.2	8.9	11.1	13.6	15.4
Furnishing and Household Equipment Maintenance	4.09	6.1	6.4	7.4	7.9	8.6	8.8	8.9	9.5	9.4	9.5	9.1	10.0	11.4
Health	2.31	7.4	7.4	8.7	8.9	9.4	9.6	10.3	9.5	9.1	8.7	8.4	9.3	10.1
Transport	6.14	-3.6	-2.8	-0.8	3.2	6.8	14.2	17.0	11.4	8.8	9.7	15.0	25.7	25.0
Communication	2.35	0.6	0.6	0.7	0.7	2.0	2.0	2.0	3.8	3.8	3.8	3.8	3.4	3.3
Recreation and Culture	1.73	3.3	3.3	3.6	3.3	3.2	3.4	5.1	5.4	5.5	6.3	7.6	7.5	7.9
Education	4.88	1.0	1.1	1.1	0.9	1.2	1.2	1.3	1.5	2.5	2.3	1.9	2.2	2.6
Restaurants and Hotels	7.41	10.0	8.7	7.9	8.4	8.5	9.1	9.4	9.5	7.6	8.5	8.6	11.4	13.2
Misc. Goods and Services	4.77	10.6	10.4	11.8	10.3	9.8	10.8	10.9	9.3	6.1	8.0	9.3	10.1	10.4

Source: Pakistan Bureau of Statistics and SBP staff estimates

<6 8.5 >10

Heat-map of Rural CPI inflation (YoY)														
	Weights	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21
National	100.00	9.5	6.6	8.8	9.5	11.3	10.9	9.7	8.0	8.4	8.8	8.7	10.9	11.6
Food and Non-Alcoholic Beverages	40.87	13.5	6.6	8.9	11.2	14.7	13.2	9.8	7.2	9.3	9.3	7.1	8.7	8.9
Alcoholic Beverages, Tobacco	1.28	5.4	5.3	5.0	4.8	3.7	3.8	3.8	2.4	1.4	1.3	1.6	1.7	1.9
Clothing and Footwear	9.48	10.6	10.7	10.1	9.7	10.8	10.0	9.3	8.4	8.1	8.2	8.2	10.1	10.1
Housing, Water, Elec., Gas and Other Fuels	18.49	4.9	4.5	12.2	10.1	10.7	9.7	10.7	10.6	9.7	11.6	14.0	17.5	19.2
Furnishing and Household Equipment Maintenance	4.10	10.0	9.5	10.1	10.3	10.8	10.8	11.0	10.3	10.0	8.9	9.3	11.0	13.7
Health	3.51	8.8	9.6	9.8	8.8	8.6	8.4	8.6	7.7	7.8	7.3	7.5	7.8	8.7
Transport	5.56	-3.3	-2.2	-1.2	2.4	6.1	13.5	15.5	9.0	6.9	8.2	13.4	22.3	22.5
Communication	1.99	0.4	0.4	0.3	0.4	0.8	0.8	0.9	1.0	1.0	0.9	1.0	0.8	0.9
Recreation and Culture	1.38	6.6	7.0	7.0	7.0	7.0	7.5	8.0	6.9	8.0	7.9	7.3	7.5	7.3
Education	2.13	2.0	2.1	1.8	1.5	2.9	2.9	3.6	4.1	4.5	4.1	3.2	3.2	3.5
Restaurants and Hotels	6.19	9.6	9.3	8.2	7.8	7.6	7.6	7.7	6.8	6.9	6.6	7.6	10.3	11.5
Misc. Goods and Services	5.02	13.8	13.2	12.8	11.1	10.3	10.6	10.9	9.5	5.7	6.5	7.9	9.7	10.7

Source: Pakistan Bureau of Statistics and SBP staff estimates

<6 8.5 >10

Heat-map of National CPI inflation (MoM)														
	Weights	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21
National	100.00	-0.7	-0.2	1.8	0.4	1.0	0.1	-0.3	1.3	0.6	2.1	1.9	3.0	0.0
Food and Non-Alcoholic Beverages	34.58	-3.2	-2.7	0.8	1.8	2.2	0.7	-1.8	1.8	0.7	4.0	2.1	3.9	-3.4
Alcoholic Beverages, Tobacco	1.02	0.2	0.1	0.2	0.3	-0.1	0.2	0.2	-0.1	0.0	0.4	0.4	0.2	0.3
Clothing and Footwear	8.60	0.7	0.8	2.4	1.0	1.1	0.3	0.2	0.3	0.1	0.2	0.5	1.9	2.0
Housing, Water, Elec., Gas and Other Fuels	23.63	1.2	1.9	4.4	-1.7	0.5	-1.2	0.4	1.4	0.7	1.6	2.4	2.4	2.8
Furnishing and Household Equipment Maintenance	4.10	0.5	0.4	1.4	1.0	0.9	0.5	0.6	0.9	0.5	0.8	0.8	1.6	2.3
Health	2.79	0.9	0.9	1.2	0.7	0.5	0.3	0.6	0.3	0.6	0.5	0.7	1.2	1.6
Transport	5.91	1.6	1.9	1.9	-0.7	-1.2	0.1	1.1	4.0	0.7	1.3	5.3	6.3	1.3
Communication	2.21	0.0	0.1	0.1	0.0	1.0	0.0	0.0	1.2	0.0	0.0	0.1	0.0	0.0
Recreation and Culture	1.59	0.4	0.3	0.3	0.3	0.1	0.4	1.3	0.6	0.8	1.2	1.2	0.4	0.6
Education	3.79	0.0	0.1	0.0	0.0	0.5	0.0	0.2	0.2	0.9	0.0	0.1	0.2	0.4
Restaurants and Hotels	6.92	0.6	0.7	0.4	0.7	0.2	0.6	0.7	0.3	0.3	1.1	1.3	3.5	2.1
Misc. Goods and Services	4.87	0.2	1.0	1.3	-0.5	0.4	0.7	1.0	0.6	0.3	1.4	1.3	1.8	0.7

Source: Pakistan Bureau of Statistics and SBP staff estimates

<0.00 0.75 >1.50

Heat-map of Urban CPI inflation (MoM)														
	Weights	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21
National	100.00	-0.3	-0.2	2.3	0.3	1.3	0.2	-0.4	1.3	0.5	2.0	1.7	2.9	0.3
Food and Non-Alcoholic Beverages	30.42	-2.6	-2.7	1.5	1.8	3.2	1.1	-2.5	1.7	0.6	4.0	1.6	4.3	-3.0
Alcoholic Beverages, Tobacco	0.85	0.0	0.0	0.2	0.6	0.1	0.2	0.1	0.0	0.0	0.2	0.2	0.3	0.1
Clothing and Footwear	8.01	0.5	0.5	4.1	0.8	1.1	0.1	0.1	0.2	0.1	0.1	0.4	1.3	2.9
Housing, Water, Elec., Gas and Other Fuels	27.03	0.9	1.6	4.2	-1.6	0.7	-1.1	0.4	1.4	0.5	1.6	2.3	2.0	2.6
Furnishing and Household Equipment Maintenance	4.09	0.5	0.5	1.6	0.9	0.8	0.5	0.5	1.0	0.4	0.8	0.7	1.4	1.8
Health	2.31	0.9	0.6	1.5	1.1	0.5	0.5	0.8	0.2	0.6	0.6	0.6	1.1	1.6
Transport	6.14	1.9	1.8	2.2	-0.7	-1.2	0.1	1.2	4.1	0.7	1.5	5.3	6.6	1.3
Communication	2.35	0.1	0.1	0.1	0.0	1.3	0.0	0.0	1.8	0.0	0.0	0.1	0.0	0.0
Recreation and Culture	1.73	0.2	0.1	0.4	0.3	0.0	0.2	1.8	0.7	0.6	1.3	1.5	0.3	0.5
Education	4.88	0.0	0.1	0.0	0.0	0.3	0.0	0.1	0.2	1.1	0.0	0.2	0.2	0.5
Restaurants and Hotels	7.41	0.7	0.7	0.4	1.1	0.2	0.6	0.8	0.4	0.1	1.4	1.0	3.5	2.3
Misc. Goods and Services	4.77	0.4	1.0	1.6	-0.3	0.6	0.8	0.9	0.1	0.5	1.4	1.0	1.7	0.6

Source: Pakistan Bureau of Statistics and SBP staff estimates

<0.00 0.75 >1.50

Heat-map of Rural CPI inflation (MoM)														
	Weights	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21
National	100.00	-1.2	-0.3	1.1	0.5	0.6	0.0	-0.1	1.4	0.7	2.3	2.2	3.1	-0.5
Food and Non-Alcoholic Beverages	40.87	-3.9	-2.6	0.1	1.7	1.0	0.2	-0.9	1.8	0.9	4.1	2.7	3.6	-3.7
Alcoholic Beverages, Tobacco	1.28	0.4	0.2	0.1	0.0	-0.4	0.2	0.3	-0.1	0.0	0.6	0.5	0.1	0.5
Clothing and Footwear	9.48	0.9	1.2	0.3	1.3	1.0	0.5	0.3	0.4	0.1	0.4	0.6	2.6	0.9
Housing, Water, Elec., Gas and Other Fuels	18.49	1.8	2.5	4.6	-1.8	0.0	-1.4	0.6	1.5	1.0	1.7	2.7	3.3	3.2
Furnishing and Household Equipment Maintenance	4.10	0.7	0.4	1.1	1.2	0.9	0.6	0.7	0.7	0.6	0.7	1.0	2.0	3.1
Health	3.51	0.9	1.3	0.9	0.3	0.5	0.1	0.3	0.3	0.5	0.4	0.7	1.3	1.7
Transport	5.56	1.2	2.0	1.5	-0.6	-1.2	0.1	0.9	3.9	0.8	1.0	5.2	5.8	1.3
Communication	1.99	0.0	0.0	0.0	0.0	0.4	0.0	0.1	0.2	0.0	0.0	0.2	0.0	0.0
Recreation and Culture	1.38	0.8	0.7	0.1	0.2	0.2	0.8	0.5	0.5	1.2	1.1	0.7	0.5	0.6
Education	2.13	0.0	0.1	0.1	0.0	1.4	0.0	0.7	0.5	0.4	0.0	0.1	0.0	0.3
Restaurants and Hotels	6.19	0.5	0.6	0.4	0.1	0.2	0.6	0.5	0.3	0.7	0.6	1.9	3.5	1.6
Misc. Goods and Services	5.02	-0.1	1.0	0.9	-0.7	0.2	0.5	1.1	1.2	0.1	1.3	1.9	2.0	0.9

Source: Pakistan Bureau of Statistics and SBP staff estimates

<0.00 0.75 >1.50

Heat-map of Rural CPI inflation (YoY)														
	Weights	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21
Rural	100.00	9.5	6.6	8.8	9.5	11.3	10.9	9.7	8.0	8.4	8.8	8.7	10.9	11.6
Food	45.95	13.4	7.2	9.1	11.1	14.1	12.8	9.8	7.3	9.1	9.1	7.2	8.6	9.0
Non-perishable	40.16	16.8	13.1	13.9	16.9	17.2	16.9	12.2	10.3	9.9	12.3	11.2	11.7	12.8
Perishable	5.79	-1.6	-23.9	-19.3	-19.4	0.5	-8.2	-5.5	-9.7	5.4	-6.8	-12.5	-5.5	-12.0
Non Food	54.05	6.1	6.1	8.6	8.1	8.9	9.2	9.7	8.7	7.7	8.5	10.0	13.0	14.0
Energy	11.41	0.6	0.1	12.3	11.1	13.8	16.0	19.8	15.7	13.8	17.2	23.2	32.0	34.0
NFNE (Core)	42.64	7.7	7.8	7.7	7.3	7.7	7.6	7.3	6.9	6.2	6.2	6.7	8.2	8.9
HRI	8.61	5.2	5.8	5.8	5.8	6.6	6.6	6.6	6.1	6.1	6.1	6.6	6.6	6.6
Core Excl HRI	34.03	8.3	8.2	8.1	7.7	8.0	7.8	7.5	7.1	6.3	6.3	6.7	8.6	9.5

Source: Pakistan Bureau of Statistics and SBP staff estimates

<6 8.5 >10

Heat-map of Urban CPI inflation (YoY)														
	Weights	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21
Urban	100.00	7.0	5.0	8.6	8.7	11.0	10.8	9.6	8.7	8.3	9.1	9.6	12.0	12.7
Food	36.80	12.6	7.3	10.3	11.5	15.7	15.3	11.0	9.4	10.2	10.8	9.4	11.9	11.7
Non-perishable	32.34	15.9	12.2	15.4	17.2	19.4	19.3	13.5	12.7	12.2	15.3	13.2	15.3	15.5
Perishable	4.46	0.4	-18.9	-15.7	-15.6	4.6	-0.2	-2.5	-8.7	1.7	-9.6	-8.9	-1.9	-8.7
Non Food	63.20	3.8	3.7	7.6	7.1	8.2	8.3	8.8	8.2	7.2	8.1	9.7	12.0	13.4
Energy	9.47	-5.2	-4.5	14.2	11.8	14.9	16.6	21.1	16.1	12.2	17.8	25.9	37.2	41.3
NFNE (Core)	53.73	5.6	5.4	6.4	6.3	7.0	6.8	6.7	6.9	6.3	6.4	6.7	7.6	8.3
HRI	19.26	4.7	4.8	4.8	4.8	6.2	6.2	6.2	6.1	6.1	6.1	6.6	6.6	6.6
Core Excl HRI	34.47	6.1	5.7	7.3	7.1	7.5	7.2	7.0	7.3	6.4	6.5	6.8	8.1	9.2

Source: Pakistan Bureau of Statistics and SBP staff estimates

<6 8.5 >10

Heat-map of Rural CPI inflation (MoM)														
	Weights	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21
Rural	100.00	-1.2	-0.3	1.1	0.5	0.6	0.0	-0.1	1.4	0.7	2.3	2.2	3.1	-0.5
Food	45.95	-3.4	-2.2	0.2	1.5	0.9	0.2	-0.8	1.6	0.8	3.7	2.6	3.3	-3.1
Non-perishable	40.16	-1.3	1.0	1.7	1.6	-1.2	1.8	-1.0	0.4	0.5	4.1	2.0	1.8	-0.4
Perishable	5.79	-16.0	-21.6	-11.1	2.8	18.5	-10.2	-0.3	12.1	3.3	4.3	7.1	14.5	-21.8
Non Food	54.05	1.0	1.5	2.0	-0.4	0.3	-0.3	0.6	1.2	0.6	1.0	1.9	3.0	1.9
Energy	11.41	2.9	2.9	7.9	-2.8	-1.3	-2.4	1.1	3.1	2.2	2.9	5.2	7.0	4.4
NFNE (Core)	42.64	0.5	1.1	0.5	0.3	0.7	0.3	0.4	0.7	0.2	0.5	1.0	1.8	1.1
HRI	8.61	0.0	2.8	0.0	0.0	1.2	0.0	0.0	1.2	0.0	0.0	1.3	0.0	0.0
Core Excl HRI	34.03	0.7	0.7	0.6	0.3	0.6	0.4	0.5	0.6	0.2	0.6	1.0	2.2	1.4

Source: Pakistan Bureau of Statistics and SBP staff estimates

<0.00 0.75 >1.50

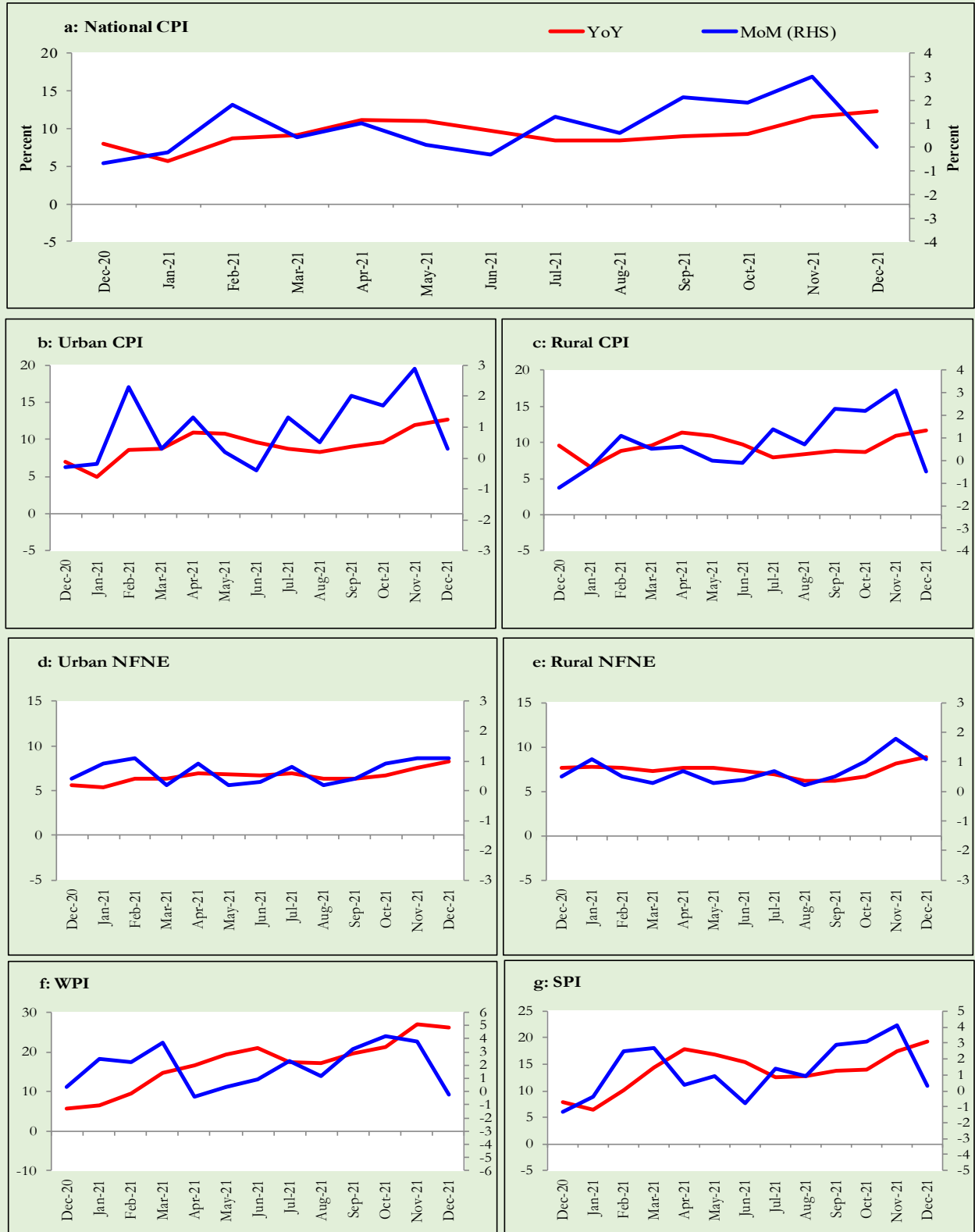
Heat-map of Urban CPI inflation (MoM)														
	Weights	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21
Urban	100.00	-0.3	-0.2	2.3	0.3	1.3	0.2	-0.4	1.3	0.5	2.0	1.7	2.9	0.3
Food	36.80	-2.1	-2.1	1.3	1.7	2.7	1.1	-1.9	1.5	0.5	3.6	1.5	3.9	-2.3
<i>Non-perishable</i>	32.34	0.0	0.3	3.1	1.5	0.5	2.5	-2.3	0.8	0.3	4.2	1.0	2.4	0.2
<i>Perishable</i>	4.46	-14.3	-18.7	-9.1	3.7	23.0	-7.1	-3.9	7.3	2.0	2.6	5.2	15.1	-20.2
Non Food	63.20	0.7	1.1	2.8	-0.6	0.5	-0.3	0.5	1.1	0.5	1.1	1.8	2.2	2.0
<i>Energy</i>	9.47	2.7	2.0	12.2	-4.1	-1.5	-3.2	1.3	3.5	2.1	4.6	6.0	7.6	5.8
<i>NFNE (Core)</i>	53.73	0.4	0.9	1.1	0.2	0.9	0.2	0.3	0.8	0.2	0.4	0.9	1.1	1.1
<i>HRI</i>	19.26	0.0	2.0	0.0	0.0	1.6	0.0	0.0	1.4	0.0	0.0	1.4	0.0	0.0
<i>Core Excl HRI</i>	34.47	0.6	0.3	1.8	0.2	0.5	0.3	0.5	0.4	0.3	0.6	0.6	1.7	1.7

Source: Pakistan Bureau of Statistics and SBP staff estimates

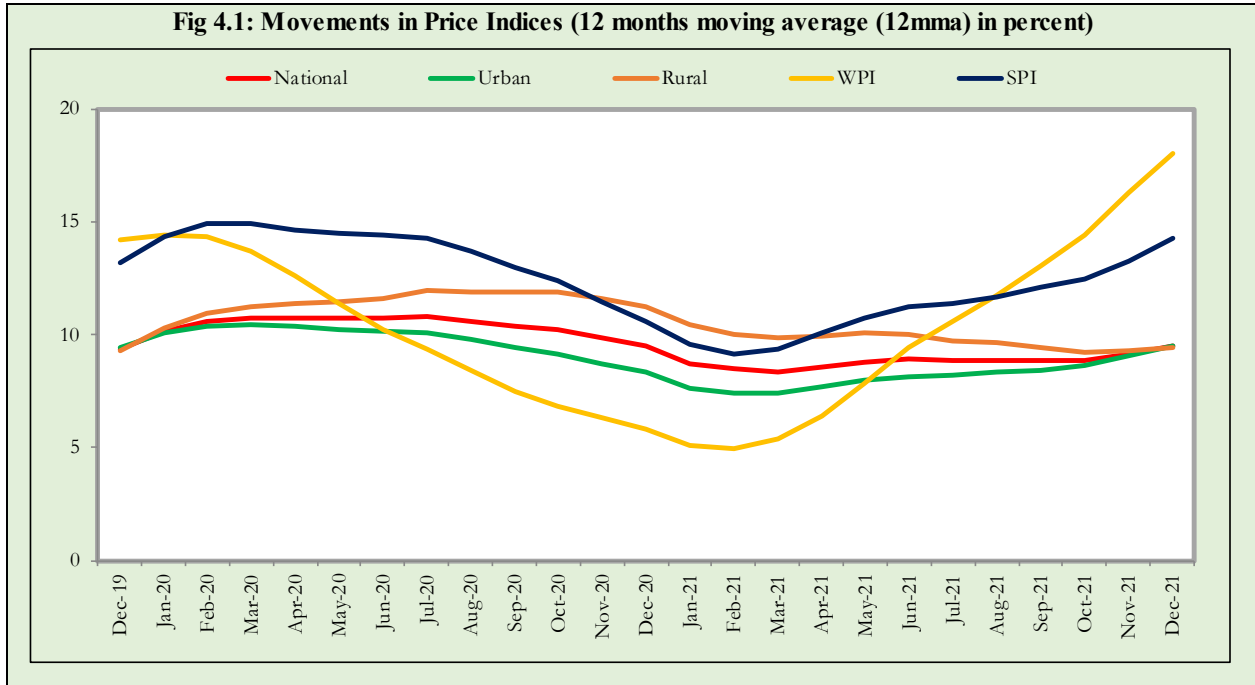
<0.00 0.75 >1.50

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)

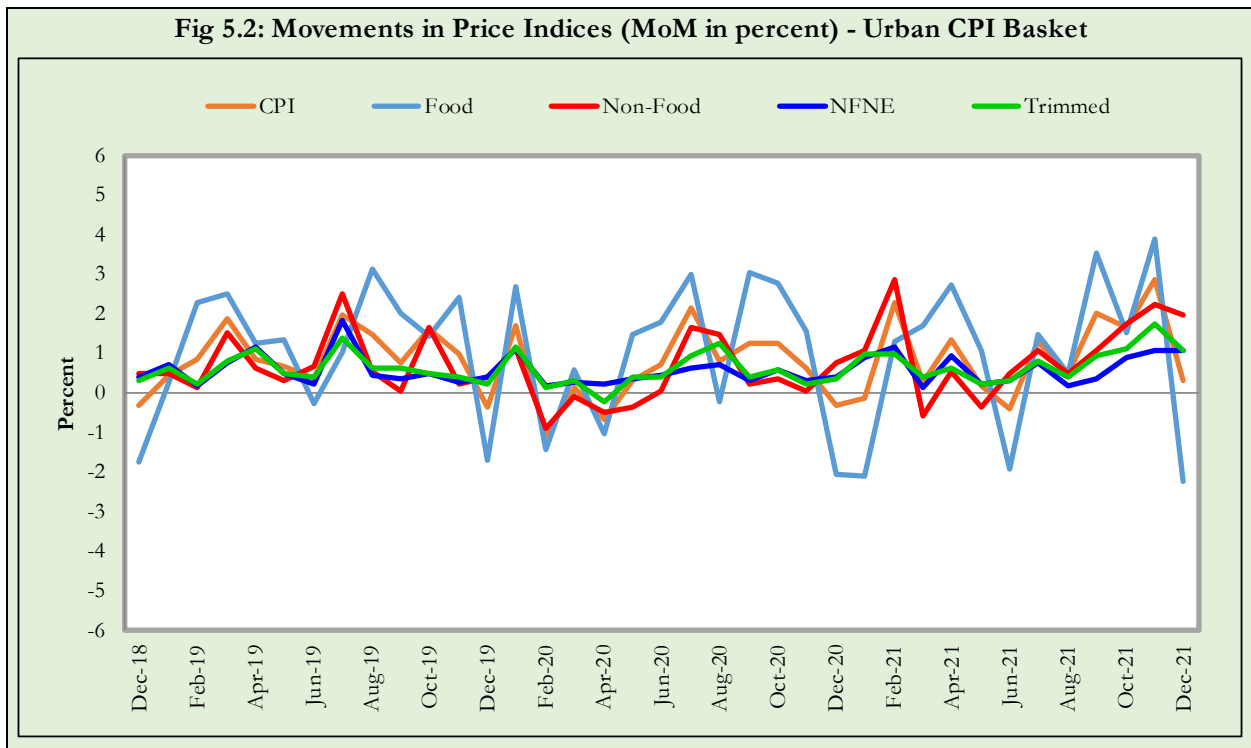
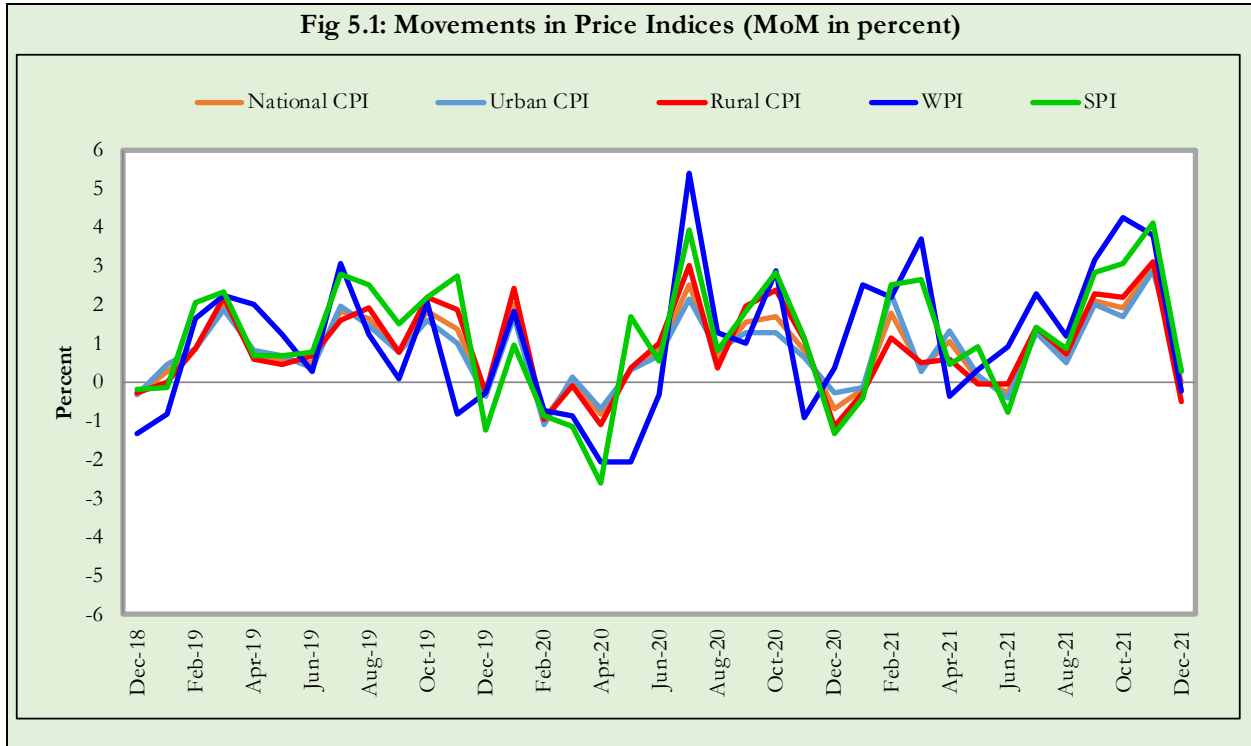
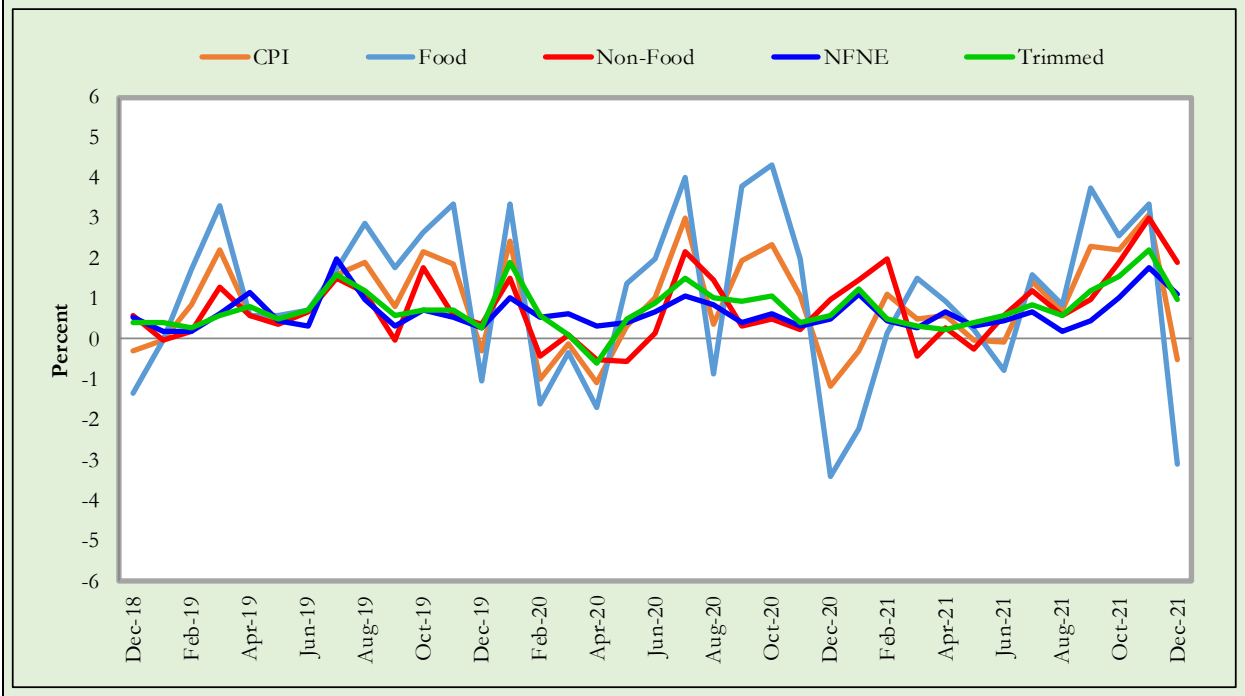
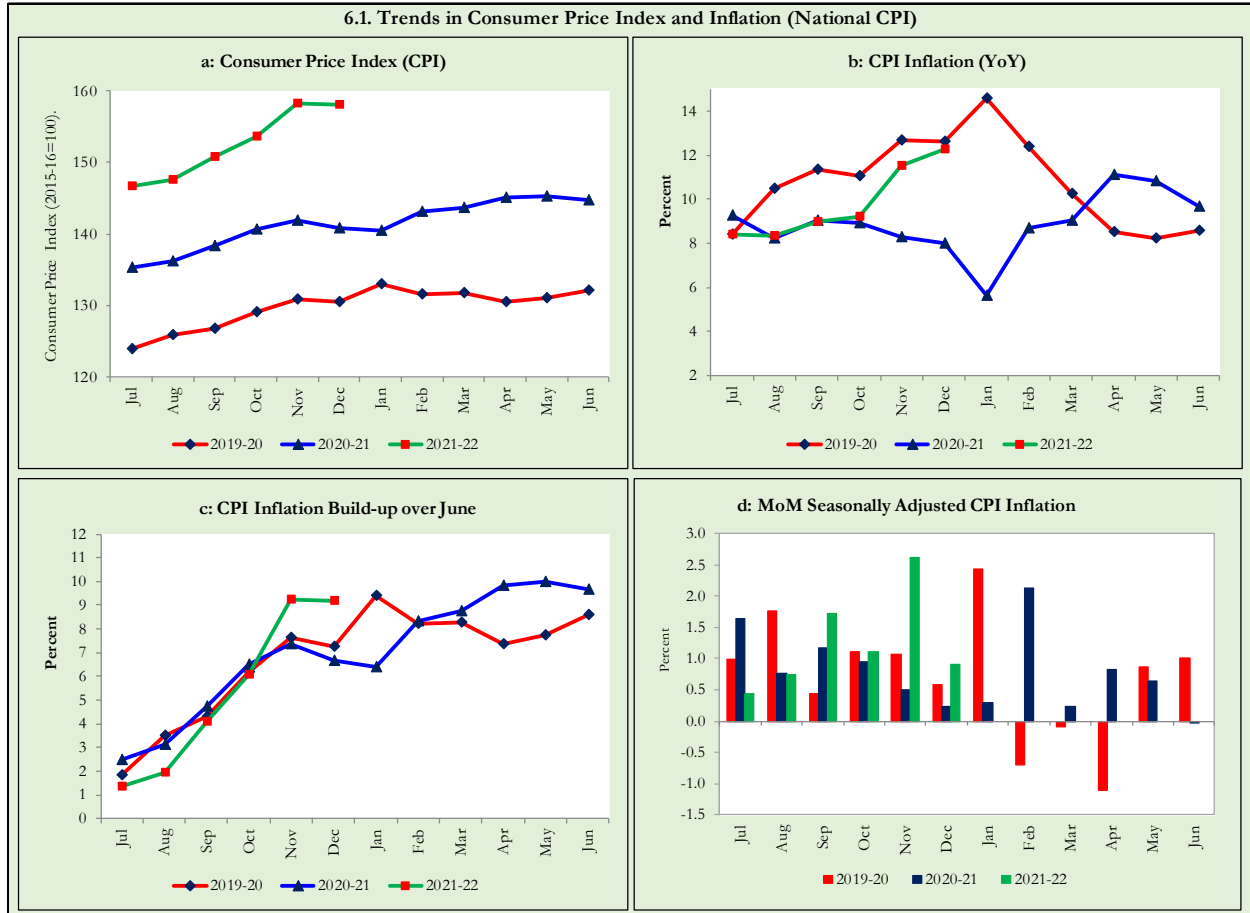


Fig 5.3: Movements in Price Indices (MoM in percent) - Rural CPI Basket

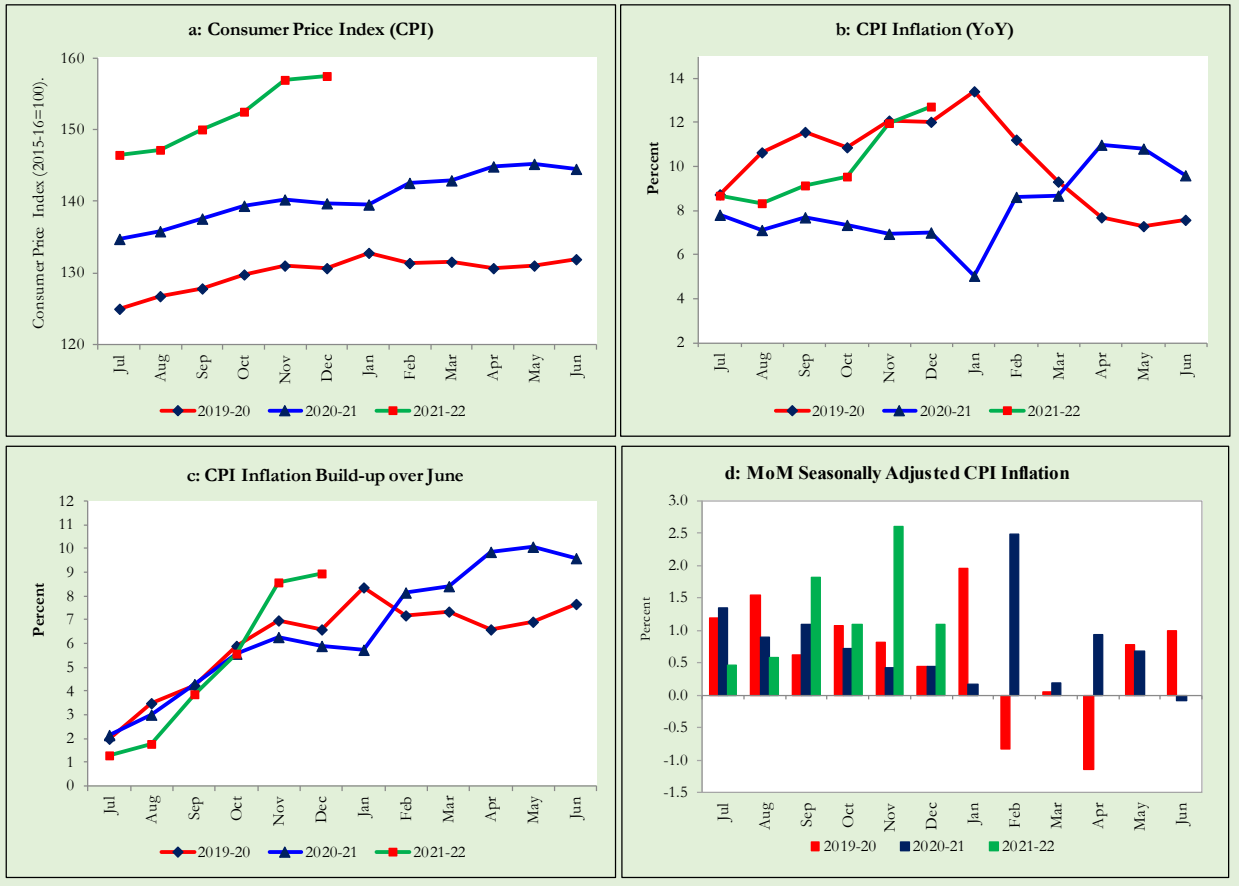


6. Trends in Consumer Price Indices and Inflation

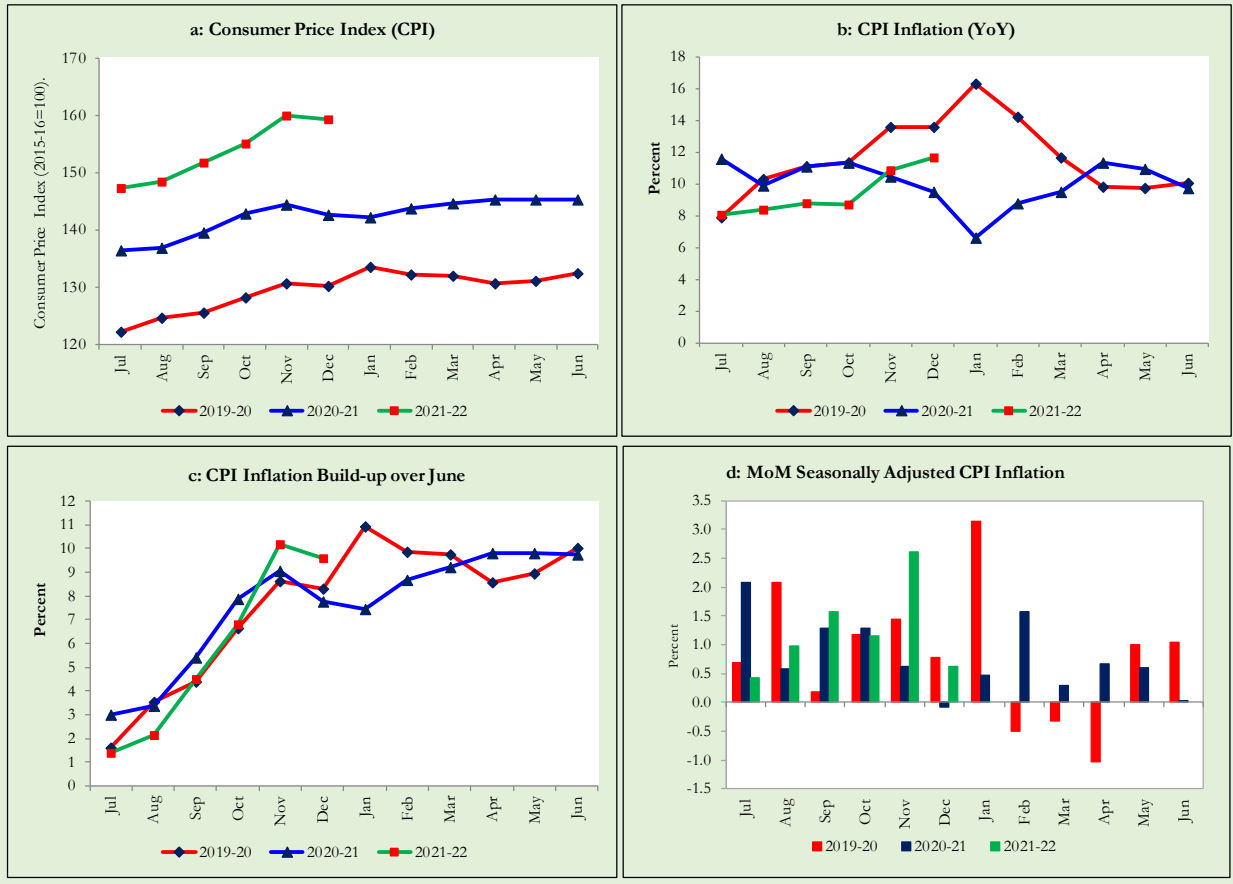
Monthly Consumer Price Indices, YoY growth rates and inflation build up over June along with seasonally adjusted (MoM) growth rates in CPI (National, Urban and Rural) is summarized in the following graphs (Figure 6.1 to 6.3).



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 decreased to 35.0 percent during December 2021 from 38.6 percent in previous month. It was 65.5 percent during corresponding month of last year. The weighted contribution of non-food group increased to 65.0 percent in December 2021 from 61.4 percent in previous month. Weighted Contribution of non-food was 34.5 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
Dec-20	100.0	65.5	0.3	65.2	34.5	-8.1	42.6	30.0	12.6
Jan-21	100.0	53.2	-20.1	73.2	46.8	-9.6	56.5	38.7	17.8
Feb-21	100.0	43.6	-8.6	52.2	56.4	16.6	39.8	29.2	10.5
Mar-21	100.0	48.2	-8.7	56.9	51.7	13.3	38.4	28.1	10.3
Apr-21	100.1	52.4	2.1	50.4	47.6	13.0	34.6	23.7	10.9
May-21	100.0	52.0	-0.1	52.1	48.0	13.9	34.1	23.2	10.9
Jun-21	100.1	43.0	-1.2	44.2	57.1	19.4	37.8	25.5	12.3
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	39.0	62.1	25.4	36.7	24.0	12.8
Nov-21	100.0	38.6	-0.9	29.1	61.4	28.6	32.8	22.7	10.1
Dec-21	100.0	35.0	-3.4	27.2	65.0	30.8	34.2	24.6	9.5

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 37.2 percent during December 2021 from 39.2 percent in previous month. It was 65.5 percent during corresponding month of last year. The weighted contribution of non-food group increased to 62.8 percent in December 2021 from 60.8 percent in previous month. Weighted contribution of non-food group was 34.5 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
Dec-20	100.0	65.5	-1.2	66.7	34.5	0.7	33.8	29.2	4.6
Jan-21	100.0	51.1	-26.7	78.0	48.9	0.3	48.7	41.3	7.4
Feb-21	100.0	47.9	-13.6	61.6	52.1	15.7	36.4	30.8	5.6
Mar-21	100.0	54.4	-13.1	67.5	45.5	13.0	32.5	27.3	5.2
Apr-21	100.0	57.7	0.3	57.4	42.3	13.2	29.1	24.1	5.0
May-21	100.0	54.9	-4.6	59.5	45.1	15.2	29.8	24.7	5.2
Jun-21	100.0	47.4	-3.3	50.7	52.6	20.4	32.2	26.5	5.7
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	41.5	59.2	27.7	31.5	25.3	6.2
Nov-21	100.0	39.2	-4.0	27.9	60.8	30.1	30.8	25.9	4.9
Dec-21	100.0	37.2	-6.9	30.1	62.8	31.2	31.6	27.0	4.6

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.

Table 8.1(a) Inflation Diffusion Index for Urban CPI Basket - based on MoM change													
Groups	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21
General	41.9	53.4	59.8	56.2	43.3	42.1	47.2	52.2	51.7	57.6	60.1	70.2	63.2
Food & Non-Alcoholic Beverages	-1.1	44.4	47.8	54.4	24.4	28.9	30.0	38.9	40.0	55.6	41.1	42.2	34.4
Alcoholic Beverages & Tobacco	-33.3	33.3	66.7	33.3	33.3	66.7	33.3	0.0	0.0	33.3	33.3	33.3	33.3
Clothing & Footwear	72.5	65.0	85.0	70.0	67.5	55.0	47.5	47.5	45.0	50.0	55.0	80.0	85.0
Housing, Water, Elect, Gas & other Fuels	51.7	6.9	31.0	17.2	20.7	-6.9	27.6	58.6	41.4	58.6	72.4	72.4	69.0
Furnishing & Household Equip. Maintenance etc.	81.0	92.9	90.5	92.9	73.8	81.0	71.4	83.3	78.6	83.3	88.1	90.5	88.1
Health	54.8	71.0	90.3	87.1	77.4	61.3	64.5	54.8	74.2	54.8	51.6	64.5	90.3
Transport	40.6	43.8	50.0	28.1	18.8	25.0	31.3	37.5	46.9	40.6	50.0	93.8	53.1
Communication	20.0	40.0	20.0	20.0	40.0	0.0	20.0	60.0	20.0	20.0	20.0	0.0	20.0
Recreation & Culture	48.0	32.0	36.0	28.0	12.0	24.0	64.0	68.0	56.0	48.0	72.0	68.0	24.0
Education	0.0	18.8	6.3	0.0	31.3	0.0	25.0	25.0	25.0	25.0	56.3	81.3	68.8
Restaurant & Hotels	78.6	71.4	71.4	85.7	57.1	85.7	71.4	71.4	57.1	64.3	85.7	85.7	100.0
Miscellaneous	65.5	79.3	75.9	75.9	65.5	79.3	75.9	58.6	69.0	89.7	82.8	96.6	86.2
NFNE	55.3	59.1	63.8	63.0	57.0	51.1	54.9	57.4	56.2	59.1	66.0	80.9	75.3

Table 8.1(b) Inflation Diffusion Index for Rural CPI Basket - based on MoM change

Groups	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21
General	34.8	39.3	45.5	46.7	35.2	32.0	43.9	44.3	41.0	54.1	66.8	61.9	56.1
Food & Non-Alcoholic Beverages	1.3	29.1	24.1	54.4	15.2	13.9	20.3	29.1	27.8	41.8	49.4	29.1	21.5
Alcoholic Beverages & Tobacco	20.0	40.0	40.0	-20.0	40.0	60.0	60.0	-20.0	0.0	40.0	80.0	40.0	80.0
Clothing & Footwear	77.8	59.3	59.3	81.5	55.6	74.1	44.4	55.6	25.9	74.1	81.5	96.3	96.3
Housing, Water, Elect, Gas & other Fuels	39.1	30.4	56.5	-17.4	17.4	-13.0	39.1	73.9	60.9	65.2	91.3	87.0	73.9
Furnishing & Household Equip. Maintenance etc.	69.2	46.2	88.5	88.5	61.5	61.5	76.9	80.8	61.5	57.7	84.6	88.5	96.2
Health	42.9	57.1	78.6	57.1	64.3	42.9	78.6	14.3	64.3	42.9	57.1	71.4	78.6
Transport	37.5	31.3	50.0	31.3	18.8	37.5	68.8	62.5	43.8	62.5	68.8	81.3	43.8
Communication	0.0	0.0	0.0	20.0	20.0	0.0	20.0	40.0	20.0	0.0	20.0	0.0	20.0
Recreation & Culture	61.5	23.1	23.1	23.1	30.8	23.1	38.5	30.8	53.8	53.8	61.5	53.8	15.4
Education	0.0	20.0	20.0	0.0	80.0	0.0	60.0	80.0	60.0	0.0	20.0	0.0	20.0
Restaurant & Hotels	64.3	42.9	42.9	21.4	42.9	57.1	28.6	28.6	28.6	64.3	78.6	85.7	85.7
Miscellaneous	35.3	76.5	52.9	64.7	58.8	47.1	70.6	41.2	58.8	88.2	88.2	88.2	82.4
NFNE	47.1	47.8	54.4	53.7	55.9	46.3	59.6	53.7	47.8	57.4	71.3	75.0	72.1

9. Domestic Commodity Prices

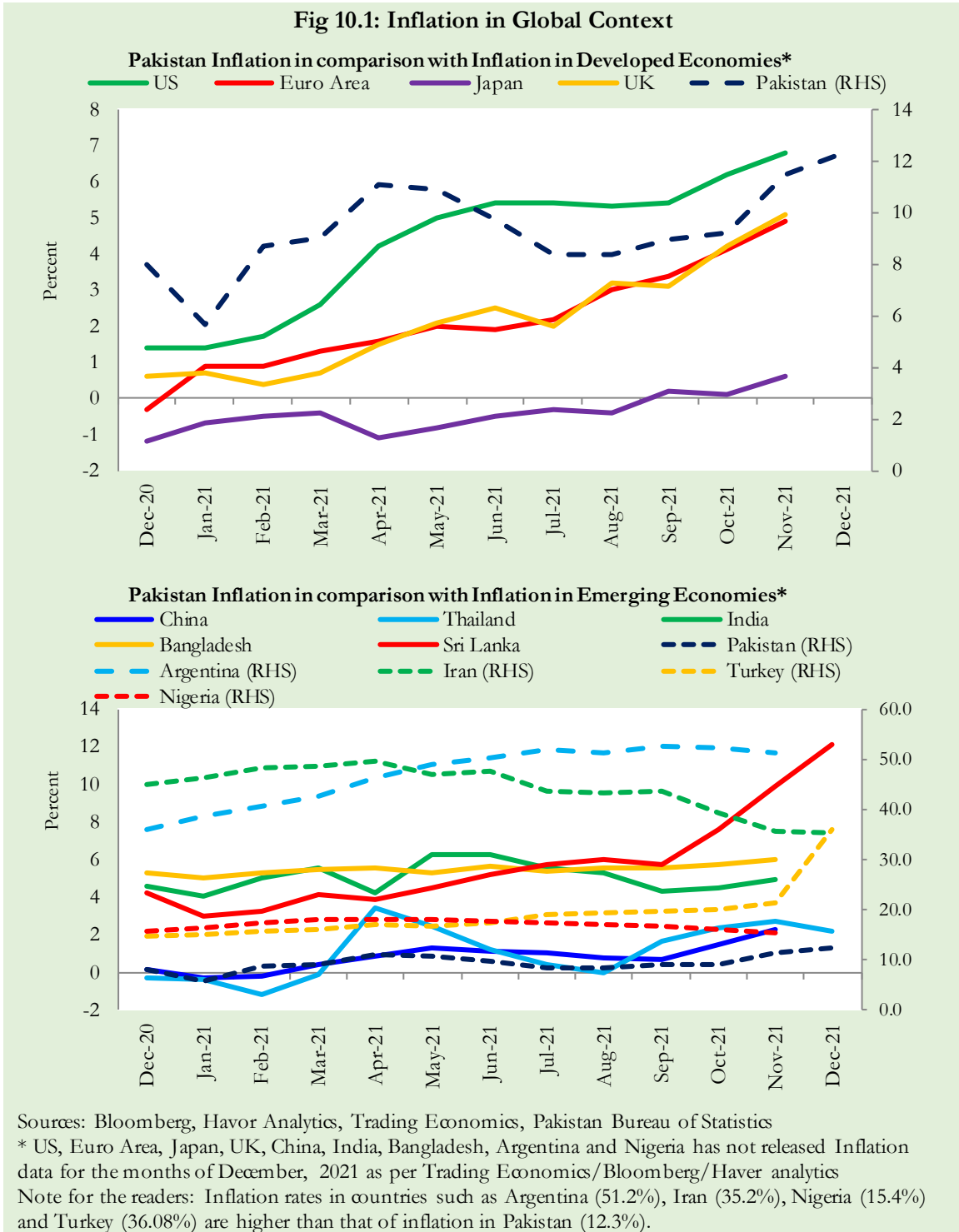
Inflation in domestic food commodities (YoY and MoM in percent) for selected essential food items covering both urban and rural CPI baskets is given in table 9.1.

S. No	Item	Unit	Urban CPI		Rural CPI	
			YoY	MoM	YoY	MoM
1	Wheat	10 Kg	14.6	-0.2	9.5	1.1
2	Wheat Flour Bag	20 Kg	21.7	-0.5	22.1	-1.0
3	Rice Basmati Broken (Superior/Average Quality) *	1 Kg	4.7	1.5	10.2	0.1
4	Beef with Bone (Average Quality)	1 Kg	20.4	0.7	20.4	2.0
5	Mutton (Average Quality)	1 Kg	20.4	0.6	18.0	2.7
6	Chicken Farm Broiler (Live)	1 Kg	-14.3	-18.3	-13.4	-18.2
7	Milk Fresh (Un-Boiled)	1 Liter	15.5	3.1	10.1	1.1
8	Eggs Farm	Dozen	-8.2	-3.0	-8.0	-0.8
9	Vegetable Ghee Dalda/Habib Or Other Superior Quality 1 Kg Pouch	Each	56.6	1.5	58.6	4.8
10	Pulse Masoor (Washed)	1 Kg	33.5	8.6	26.8	7.2
11	Pulse Moong (Washed)	1 Kg	-24.6	2.7	-24.5	1.8
12	Pulse Mash (Washed)	1 Kg	10.1	6.6	6.0	4.1
13	Pulse Gram	1 Kg	11.7	5.3	8.1	1.3
14	Potatoes	1 Kg	-25.0	-20.4	-23.0	-16.0
15	Onions	1 Kg	-27.7	-17.8	-29.8	-19.0
16	Tomatoes	1 Kg	-28.9	-49.7	-30.6	-46.6
17	Sugar Refined	1 Kg	13.3	-9.2	13.8	-13.3
18	Garlic (Lehsun)	1 Kg	3.3	3.9	24.7	1.7
19	Ginger (Adrak)	500 Gm	-57.9	-1.9	-56.4	1.4
20	Tea Lipton Yellow Label 190 Gm Packet	Each	8.6	0.2	8.9	0.4

*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.

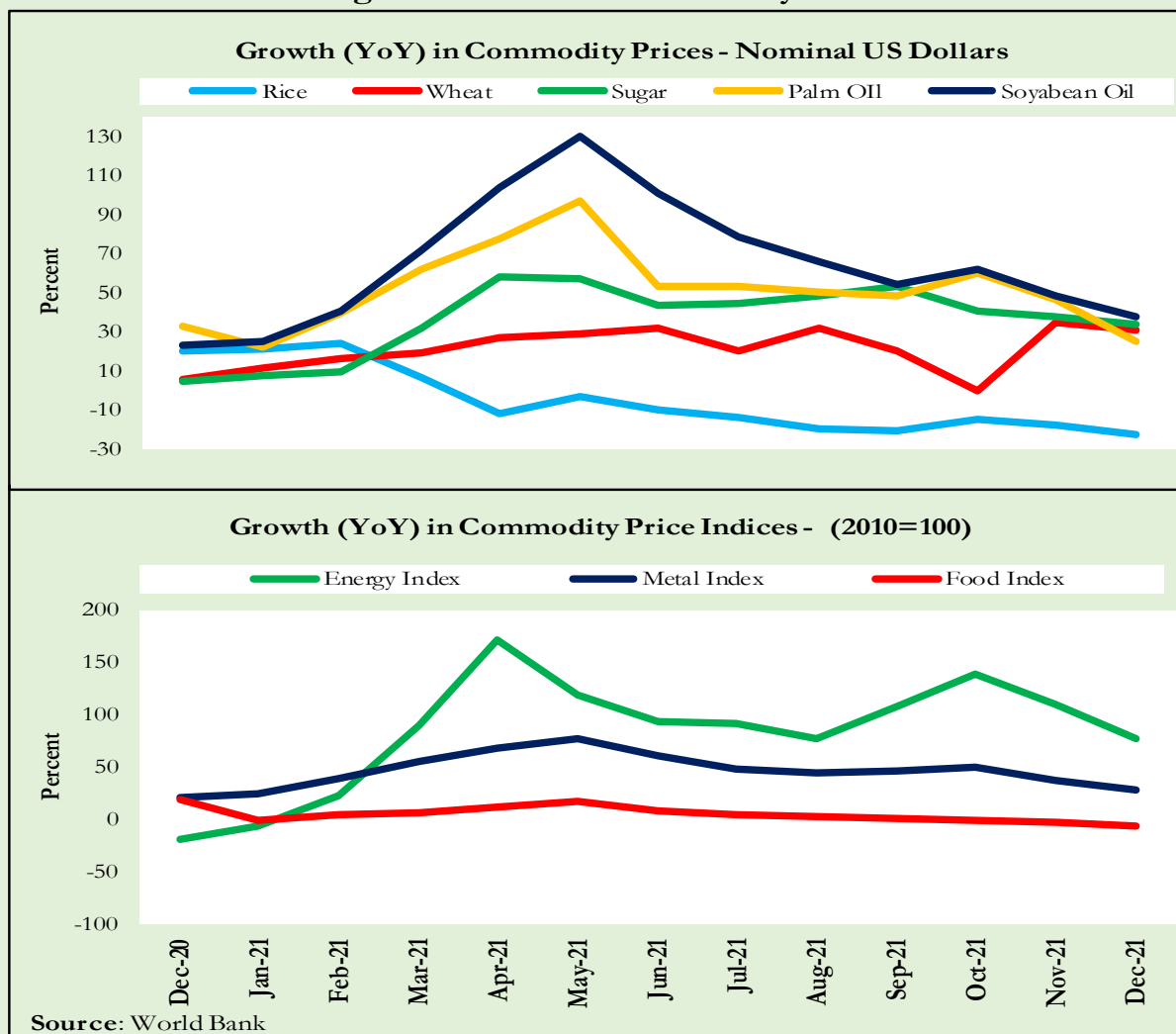


11. Global Commodity Prices

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	Dec-20		Nov-21		Dec-21	
	YoY	MoM	YoY	MoM	YoY	MoM
Food	18.7	4.5	-3.4	1.3	-6.5	1.2
Metals	21.5	7.2	36.9	-3.7	27.7	0.0
Energy	-18.2	15.1	109.9	-6.2	76.8	-3.1
Agricultural	14.7	3.6	0.9	1.4	-1.8	0.8
Cotton	6.8	4.2	62.8	7.8	48.2	-5.1

Figure 11.1: Global Commodity Prices



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 December 2021 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 may not necessarily show the same seasonal pattern.

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

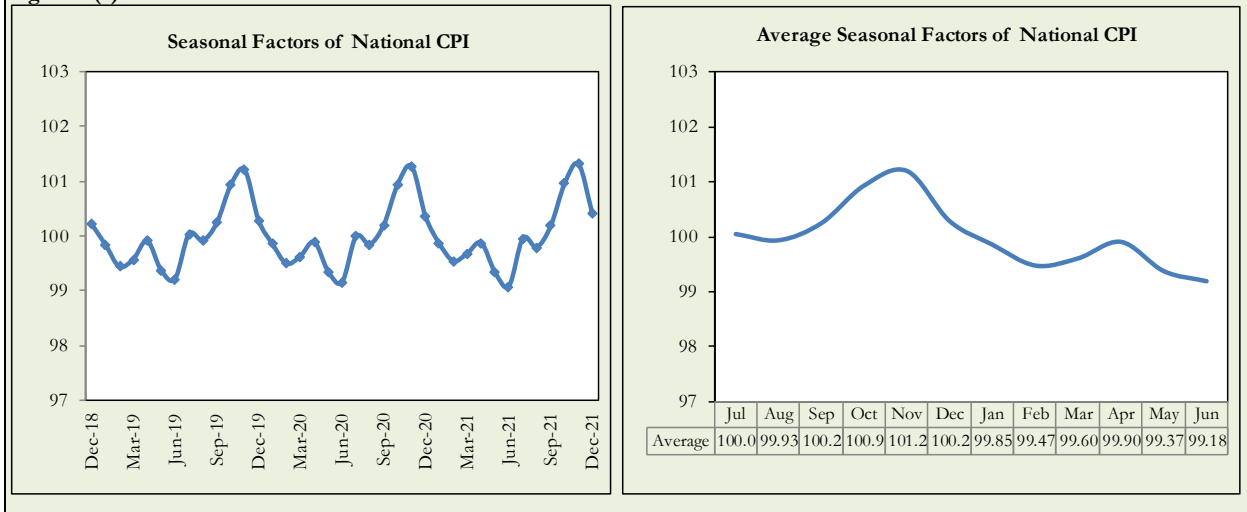


Fig. 12.1 (b): Seasonal Factor of Urban CPI

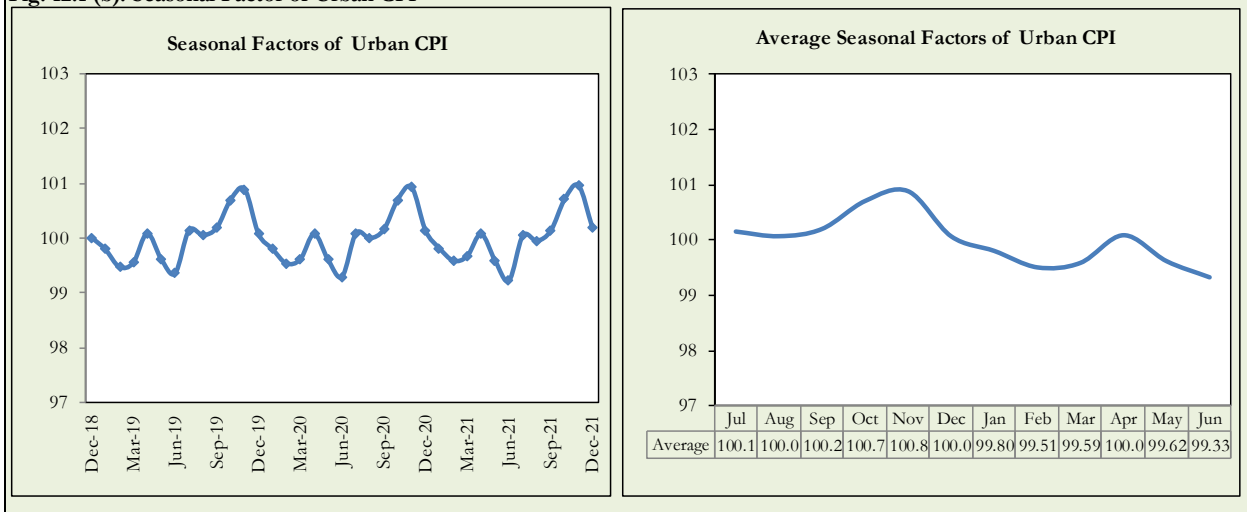
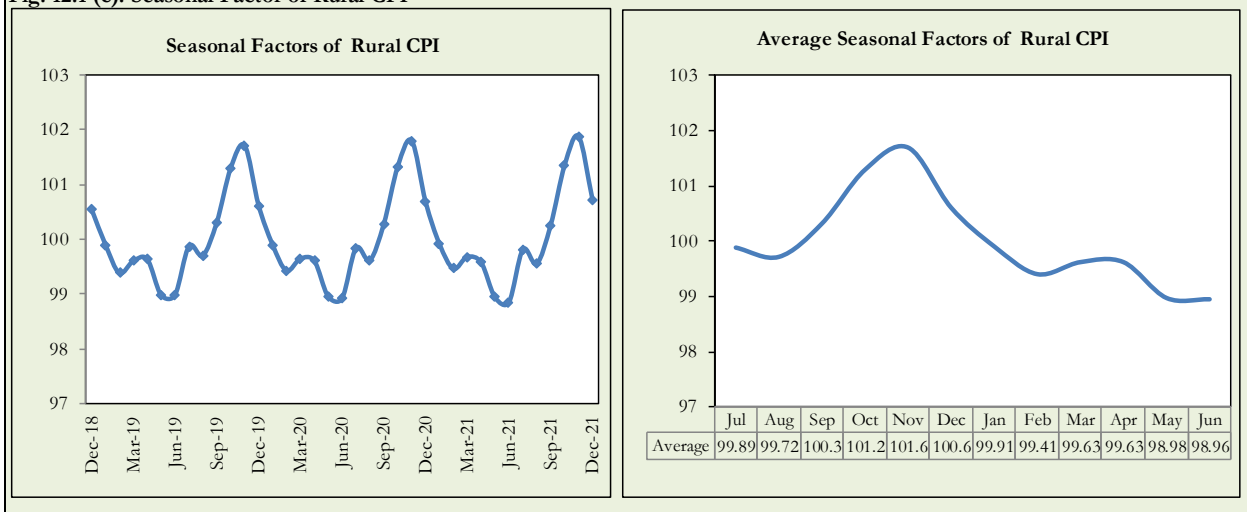


Fig. 12.1 (c): Seasonal Factor of Rural CPI



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.

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

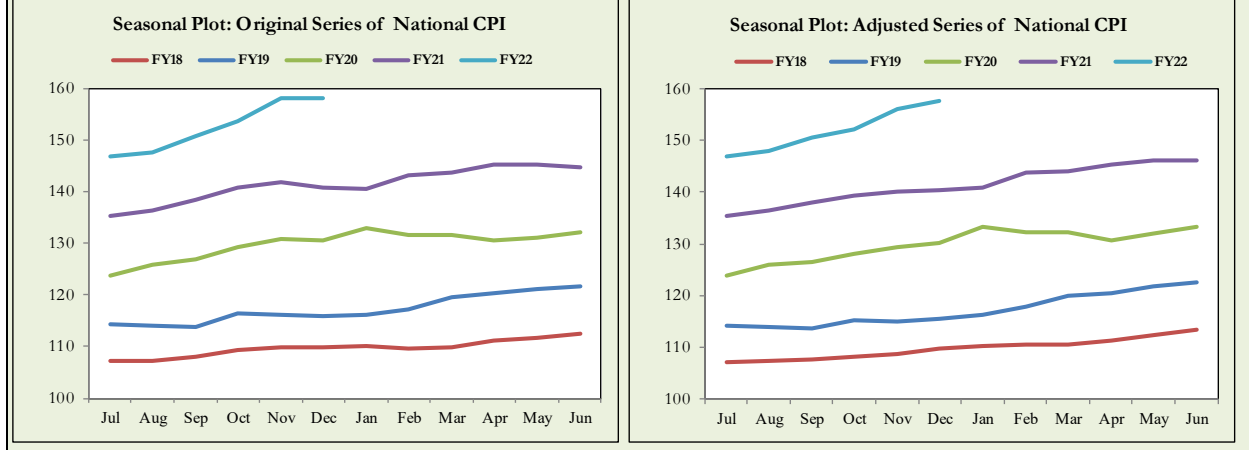


Fig. 12.2 (b): Seasonal Plot of Urban CPI

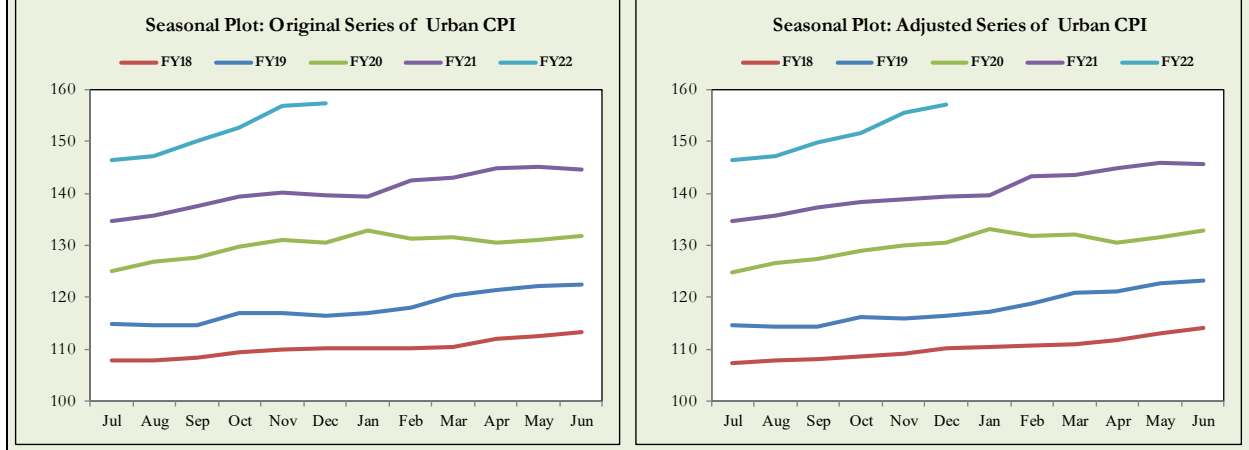
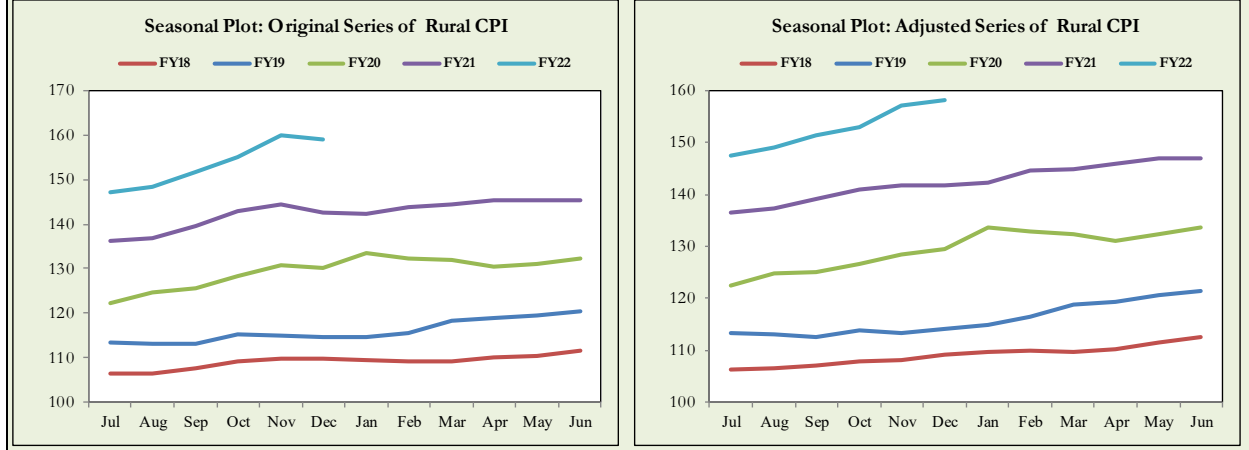


Fig. 12.2 (c): Seasonal Plot of Rural CPI



Seasonally adjusted Index of National CPI for December 2021 stood at 157.52 against 158.16 in original series showing a decrease of 0.64 because of seasonal adjustment.

Seasonally adjusted Index of Urban CPI for December 2021 stood at 157.16 against 157.46 in original series showing a decrease of 0.30 on account of seasonal adjustment.

Seasonally adjusted Index of Rural CPI for December 2021 stood at 158.06 against 159.21 in original series showing a decreased of 1.15 on account of seasonal adjustment.

Month-on-month change of seasonally adjusted National CPI series stood at 0.90% reflecting a decrease during December 2021 over previous month and a decrease of 0.01% in original series.

Month-on-month change of seasonally adjusted Urban CPI series stood at 1.09% reflecting a decrease during December 2021 over previous month and a decrease of 0.32% in original series.

Month-on-month change of seasonally adjusted Rural CPI series stood at 0.62% reflecting a decrease during December 2021 over previous month.

It is pertinent to note that in case of MoM inflation, seasonally adjusted rates provide important information.

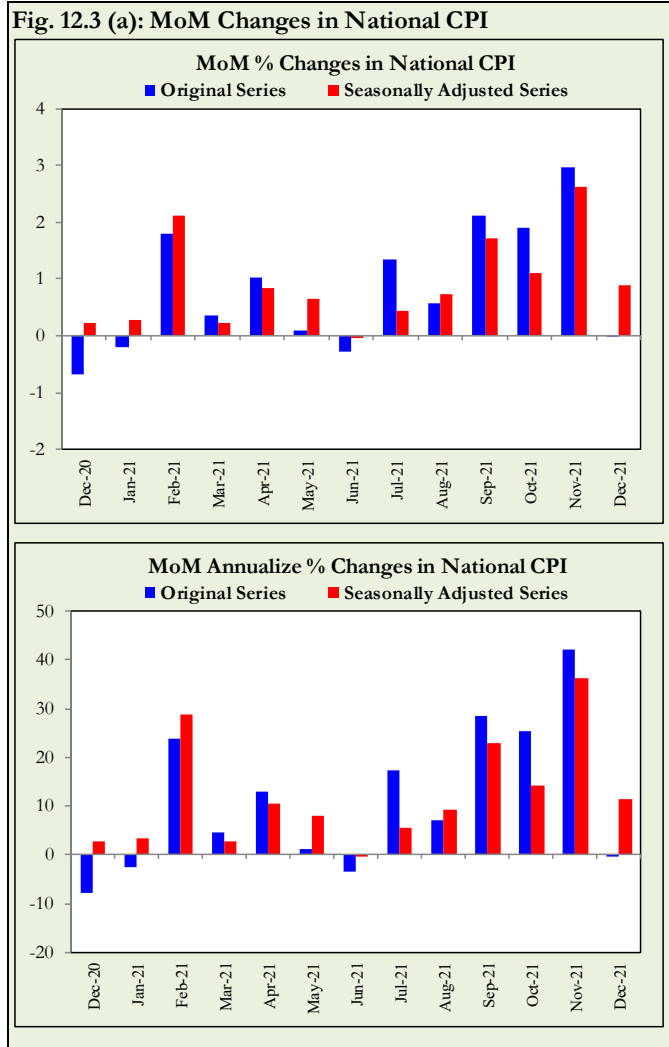


Fig. 12.3 (b): MoM % Changes in Urban CPI

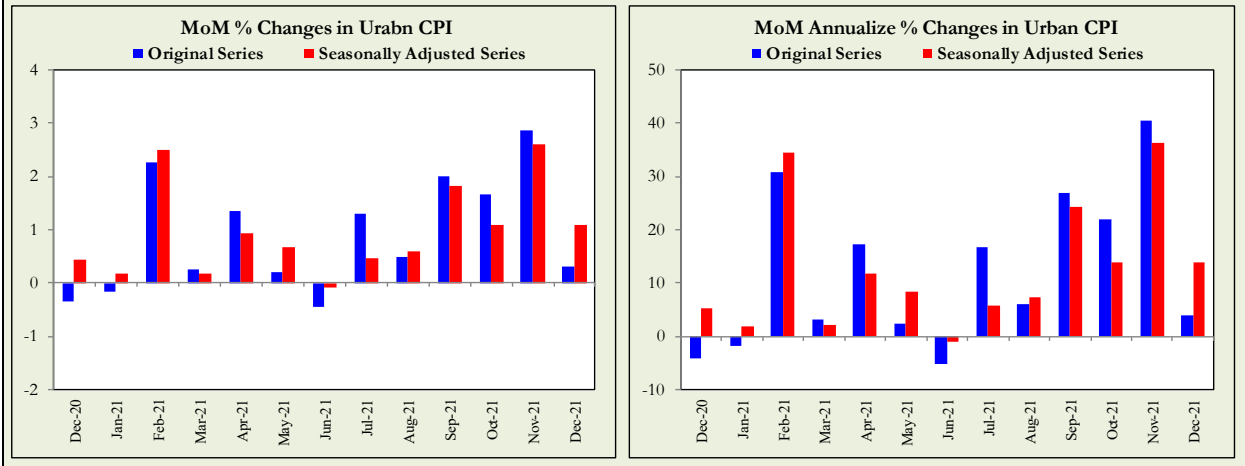
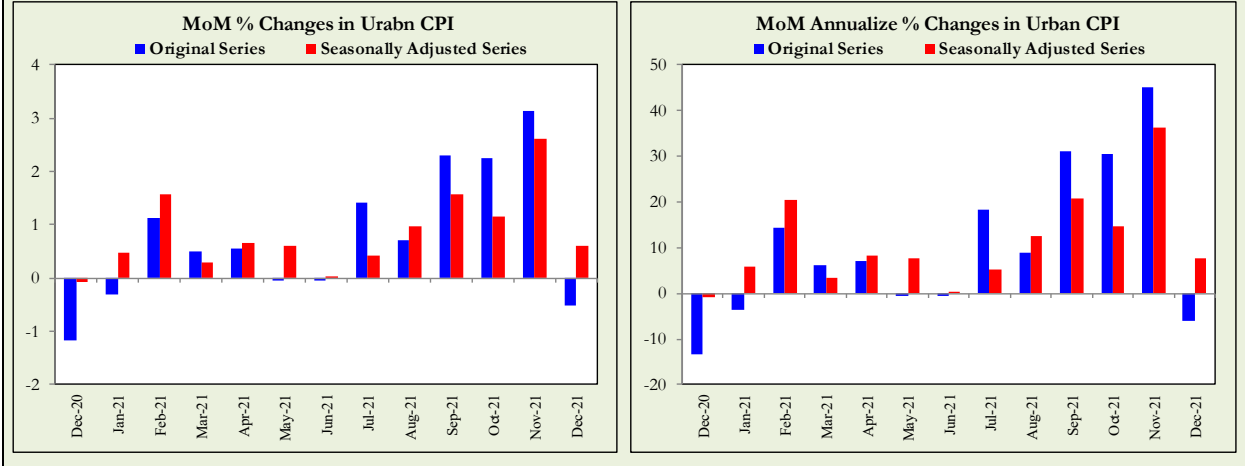


Fig. 12.3 (c): MoM % Changes in Rural CPI



List of Tables

Groups	Weights	MoM change			YoY change		
		Dec-20	Nov-21	Dec-21	Dec-20	Nov-21	Dec-21
Food & Non-Alcoholic	34.6	-3.2	3.9	-3.4	13.3	10.5	10.3
Alcoholic Beverages & Tobacco	1.0	0.2	0.2	0.3	6.0	1.8	2.0
Clothing & Footwear	8.6	0.7	1.9	2.0	9.6	9.8	11.2
Housing, Water, Elec, Gas & other Fuels	23.6	1.2	2.4	2.8	3.5	14.8	16.6
Furnishing & Household Equip. Maintenance etc	4.1	0.5	1.6	2.3	7.7	10.4	12.3
Health	2.8	0.9	1.2	1.6	8.1	8.5	9.4
Transport	5.9	1.6	6.3	1.3	-3.5	24.4	24.1
Communication	2.2	0.0	0.0	0.0	0.5	2.5	2.5
Recreation & Culture	1.6	0.4	0.4	0.6	4.4	7.5	7.7
Education	3.8	0.0	0.2	0.4	1.2	2.4	2.8
Restaurants & Hotels	6.9	0.6	3.5	2.1	9.9	11.0	12.6
Miscellaneous	4.9	0.2	1.8	0.7	11.9	10.0	10.6
Overall National CPI	100.0	-0.7	3.0	0.0	8.0	11.5	12.3

Groups	Weights	MoM change			YoY change		
		Dec-20	Nov-21	Dec-21	Dec-20	Nov-21	Dec-21
I. Food Group	36.8	-2.1	3.9	-2.3	12.6	11.9	11.7
Food & Non-Alcoholic Beverages	30.4	-2.6	4.3	-3.0	13.1	12.1	11.7
Alcoholic Beverages & Tobacco	0.9	0.0	0.3	0.1	6.6	1.9	2.1
Restaurant & Hotels (Food)	5.5	0.9	2.3	2.1	10.6	12.2	13.6
II. Non-Food Group	63.2	0.7	2.2	2.0	3.8	12.0	13.4
Clothing & Footwear	8.0	0.5	1.3	2.9	8.8	9.5	12.2
Housing, Water, Elec, Gas & other Fuels	27.0	0.9	2.0	2.6	2.8	13.6	15.4
Furnishing & Household Equip. Maintenance etc	4.1	0.5	1.4	1.8	6.1	9.9	11.4
Health	2.3	0.9	1.1	1.6	7.4	9.3	10.1
Transport	6.1	1.9	6.6	1.3	-3.6	25.7	25.0
Communication	2.4	0.1	0.0	0.0	0.6	3.4	3.3
Recreation & Culture	1.7	0.2	0.3	0.5	3.3	7.5	7.9
Education	4.9	0.0	0.2	0.4	1.0	2.2	2.6
Restaurants & Hotels (Non-food)	1.9	0.1	7.6	3.1	8.1	9.0	12.2
Miscellaneous	4.8	0.4	1.7	0.6	10.6	10.1	10.4
Overall Urban CPI	100.0	-0.3	2.9	0.3	7.0	12.0	12.7

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

Groups	Weights	MoM Change			YoY Change		
		Dec-20	Nov-21	Dec-21	Dec-20	Nov-21	Dec-21
I. Food Group	45.9	-3.4	3.3	-3.1	13.4	8.6	9.0
Food and Non-Alcoholic Beverages	40.9	-3.9	3.6	-3.7	13.5	8.7	8.9
Alcoholic Beverages, Tobacco	1.3	0.4	0.1	0.5	5.4	1.7	1.9
Restaurants and Hotels (Food Component)	3.8	0.8	1.6	2.2	14.6	10.6	12.1
II. Non-Food Group	54.1	1.0	3.0	1.9	6.1	13.0	14.0
Clothing and Footwear	9.5	0.9	2.6	0.9	10.6	10.1	10.1
Housing, Water, Elec., Gas and Other Fuels	18.5	1.7	3.3	3.2	4.9	17.5	19.2
Furnishing and Household Equip. Maintenance	4.1	0.6	2.0	3.1	10.0	11.0	13.7
Health	3.5	0.9	1.3	1.7	8.8	7.8	8.7
Transport	5.6	1.2	5.8	1.3	-3.3	22.3	22.5
Communication	2.0	0.0	0.0	0.0	0.4	0.8	0.8
Recreation and Culture	1.4	0.8	0.5	0.6	6.6	7.5	7.3
Education	2.1	0.0	0.0	0.3	2.0	3.2	3.5
Restaurants and Hotels (Non-Food Component)	2.4	0.0	7.4	0.5	1.4	9.8	10.4
Miscellaneous	5.0	-0.1	2.0	0.9	13.8	9.7	10.7
Rural CPI	100.0	-1.2	3.1	-0.5	9.5	10.9	11.6

Table A4: Top Ten Contributors to Urban CPI Inflation (YoY) – December 2021

Items/Contributors	Weights	YoY Change		Weighted Contribution (%)	
		Dec-20	Dec-21		
<u>A. Ranked by Weighted Contribution</u>					
1	Electricity Charges	4.56	-5.96	59.38	18.26
2	House Rent	19.26	4.67	6.62	9.55
3	Motor Fuel	2.91	-8.76	39.68	9.39
4	Milk Fresh	7.11	11.70	14.46	7.76
5	Readymade Food	5.52	10.64	13.57	5.82
6	Cooking Oil	1.10	10.62	59.33	5.38
7	Vegetable Ghee	1.03	17.25	56.33	5.02
8	Wheat Flour	3.01	13.45	19.12	4.35
9	Meat	2.04	10.66	20.40	3.65
10	Liquefied Hydrocarbons	0.51	-2.54	72.38	2.96
Total		47.05			72.14
<u>B. Ranked by Percentage Change</u>					
1	Liquefied Hydrocarbons	0.51	-2.54	72.38	2.96
2	Mustard Oil	0.01	15.07	60.77	0.05
3	Electricity Charges	4.56	-5.96	59.38	18.26
4	Cooking Oil	1.10	10.62	59.33	5.38
5	Vegetable Ghee	1.03	17.25	56.33	5.02
6	Motor Fuel	2.91	-8.76	39.68	9.39
7	Pulse Masoor	0.16	14.79	33.56	0.32
8	Fresh Fruits	1.44	-7.50	29.93	2.49
9	Footwear	1.48	6.15	26.87	2.91
10	Sweetmeat	0.35	9.97	21.25	0.63
Total		13.55			47.41
<u>C. Ranked by Weights</u>					
1	House Rent	19.26	4.67	6.62	9.55
2	Milk Fresh	7.11	11.70	14.46	7.76
3	Readymade Food	5.52	10.64	13.57	5.82
4	Education	4.88	1.03	2.63	1.06
5	Electricity Charges	4.56	-5.96	59.38	18.26
6	Wheat Flour	3.01	13.45	19.12	4.35
7	Appliances/Articles/Products For Personal	2.98	7.48	11.74	2.65
8	Motor Fuel	2.91	-8.76	39.68	9.39
9	Cotton Cloth	2.22	12.51	9.94	1.77
10	Meat	2.04	10.66	20.40	3.65
Total		54.49			64.26

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 12.7 percent in December 2021.

Table A5: Top Ten Contributors to Urban CPI Inflation (MoM) in December 2021

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Nov-21	Dec-21		
A. Ranked by Weighted Contribution					
1	Electricity Charges	4.56	8.32	14.21	216.88
2	Milk Fresh	7.11	2.33	2.83	60.13
3	Footwear	1.48	0.07	9.22	41.22
4	Readymade Food	5.52	2.25	2.09	35.57
5	Cooking Oil	1.10	9.71	6.02	29.19
6	Transport Services	1.75	4.24	5.46	26.03
7	Fresh Fruits	1.44	4.37	4.81	17.64
8	Marriage Hall Charges	1.75	8.09	3.25	16.99
9	Washing Soap/Detergents/Match	1.41	2.24	2.79	12.08
10	Vegetable Ghee	1.03	10.87	1.79	8.73
Total		27.15			464.46
B. Ranked by Percentage Change					
1	Electricity Charges	4.56	8.32	14.21	216.88
2	Footwear	1.48	0.07	9.22	41.22
3	Pulse Masoor	0.16	3.14	8.64	3.57
4	Electrical Appliances For Personal	0.05	0.55	7.75	0.87
5	Pulse Mash	0.12	0.65	6.58	1.63
6	Cooking Oil	1.10	9.71	6.02	29.19
7	Major Tools & Equipments	0.01	0.38	5.57	0.13
8	Transport Services	1.75	4.24	5.46	26.03
9	Pulse Gram	0.17	-0.13	5.27	2.16
10	Fresh Fruits	1.44	4.37	4.81	17.64
Total		10.84			339.32
C. Ranked by Weights					
1	House Rent	19.26	0.00	0.00	0.00
2	Milk Fresh	7.11	2.33	2.83	60.13
3	Readymade Food	5.52	2.25	2.09	35.57
4	Education	4.88	0.23	0.45	6.54
5	Electricity Charges	4.56	8.32	14.21	216.88
6	Wheat Flour	3.01	0.29	-0.04	-0.36
7	Appliances/Articles/Products For	2.98	0.60	0.59	5.25
8	Motor Fuel	2.91	8.40	-0.13	-1.51
9	Cotton Cloth	2.22	2.64	1.25	8.58
10	Meat	2.04	2.63	0.62	4.74
Total		54.49			335.82

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 0.3 percent in December 2021.

Table A6: Top and Bottom Fifteen Contributors to Urban CPI Inflation (YoY) in December 2021

Items/ Contributors	Weights	YoY Change		Weighted Contribution (%)	
		Dec-20	Dec-21		
A. Ranked by Weighted Contribution					
1	Electricity Charges	4.56	-5.96	59.38	18.26
2	House Rent	19.26	4.67	6.62	9.55
3	Motor Fuel	2.91	-8.76	39.68	9.39
4	Milk Fresh	7.11	11.70	14.46	7.76
5	Readymade Food	5.52	10.64	13.57	5.82
6	Cooking Oil	1.10	10.62	59.33	5.38
7	Vegetable Ghee	1.03	17.25	56.33	5.02
8	Wheat Flour	3.01	13.45	19.12	4.35
9	Meat	2.04	10.66	20.40	3.65
10	Liquefied Hydrocarbons	0.51	-2.54	72.38	2.96
11	Footwear	1.48	6.15	26.87	2.91
12	Appliances/Articles/Products For	2.98	7.48	11.74	2.65
13	Fresh Fruits	1.44	-7.50	29.93	2.49
14	Washing Soap/Detergents/Match	1.41	6.66	16.57	1.78
15	Cotton Cloth	2.22	12.51	9.94	1.77
Total		56.58			83.74
Bottom 15 Contributors					
1	Chicken	1.36	67.35	-14.34	-1.82
2	Potatoes	0.45	38.33	-23.96	-1.57
3	Tomatoes	0.35	-11.16	-28.90	-1.37
4	Onions	0.59	-24.38	-27.73	-1.19
5	Eggs	0.51	64.39	-8.19	-0.53
6	Condiments And Spices	1.33	47.45	-2.63	-0.42
7	Pulse Moong	0.17	23.09	-24.59	-0.34
8	Newspapers	0.07	0.00	0.00	0.00
9	Gas Charges	1.08	0.00	0.00	0.00
10	Therapeutic Appliances And	0.01	7.45	4.23	0.00
11	Cigarettes	0.72	4.73	0.05	0.00
12	Major Tools & Equipments	0.01	12.37	10.48	0.01
13	Dental Services	0.02	5.34	7.21	0.01
14	Carpets	0.03	4.79	7.67	0.01
15	Dessert Preparation	0.04	8.11	5.02	0.02
Total		6.74			-7.19

Table A7: Top and Bottom Fifteen Contributors to Urban CPI Inflation (MoM) in December 2021

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Nov-21	Dec-21		
A. Ranked by Weighted Contribution					
1	Electricity Charges	4.56	8.32	14.21	216.88
2	Milk Fresh	7.11	2.33	2.83	60.13
3	Footwear	1.48	0.07	9.22	41.22
4	Readymade Food	5.52	2.25	2.09	35.57
5	Cooking Oil	1.10	9.71	6.02	29.19
6	Transport Services	1.75	4.24	5.46	26.03
7	Fresh Fruits	1.44	4.37	4.81	17.64
8	Marriage Hall Charges	1.75	8.09	3.25	16.99
9	Washing Soap/Detergents/Match	1.41	2.24	2.79	12.08
10	Vegetable Ghee	1.03	10.87	1.79	8.73
11	Cotton Cloth	2.22	2.64	1.25	8.58
12	Woolen Cloth	0.84	0.92	3.31	7.98
13	Milk Products	0.64	1.02	3.91	7.59
14	Education	4.88	0.23	0.45	6.54
15	Drugs And Medicines	1.07	1.63	1.88	6.48
Total		36.80			501.63
Bottom 15 Contributors					
1	Fresh Vegetables	1.53	10.42	-25.73	-157.10
2	Tomatoes	0.35	131.64	-49.74	-118.38
3	Chicken	1.36	-4.34	-18.34	-86.77
4	Potatoes	0.45	8.85	-19.76	-43.54
5	Sugar	1.11	1.43	-9.22	-33.41
6	Onions	0.59	-7.97	-17.80	-23.88
7	Liquefied Hydrocarbons	0.51	16.32	-4.19	-10.97
8	Eggs	0.51	10.19	-3.03	-6.56
9	Motor Fuel	2.91	8.40	-0.13	-1.51
10	Wheat	0.61	1.02	-0.20	-0.44
11	Wheat Flour	3.01	0.29	-0.04	-0.36
12	Gur	0.04	2.50	-1.28	-0.16
13	Wheat Products	0.09	2.40	-0.20	-0.06
14	Newspapers	0.07	0.00	0.00	0.00
15	Communication Services	1.88	0.00	0.00	0.00
Total		15.02			-483.14

Table A8: Top and Bottom Fifteen Contributors to MoM Urban CPI Food Inflation in December 2021

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Nov-21	Dec-21		
A. Ranked by Weighted Contribution					
1	Milk fresh	7.11	2.33	2.83	60.13
2	Readymade food	5.52	2.25	2.09	35.57
3	Cooking oil	1.10	9.71	6.02	29.19
4	Fresh fruits	1.44	4.37	4.81	17.64
5	Vegetable ghee	1.03	10.87	1.79	8.73
6	Milk products	0.64	1.02	3.91	7.59
7	Meat	2.04	2.63	0.62	4.74
8	Bakery and confectionary	0.48	3.46	2.96	4.44
9	Sweetmeat	0.35	5.64	3.27	4.03
10	Pulse masoor	0.16	3.14	8.64	3.57
11	Rice	1.18	1.73	0.90	3.21
12	Dry fruits	0.33	5.65	2.98	2.87
13	Pulse gram	0.17	-0.13	5.27	2.16
14	Butter	0.09	0.22	4.60	1.69
15	Pulse mash	0.12	0.65	6.58	1.63
Total		21.76			187.19
Bottom 15 Contributors					
1	Fresh vegetables	1.53	10.42	-25.73	-157.10
2	Tomatoes	0.35	131.64	-49.74	-118.38
3	Chicken	1.36	-4.34	-18.34	-86.77
4	Potatoes	0.45	8.85	-19.76	-43.54
5	Sugar	1.11	1.43	-9.22	-33.41
6	Onions	0.59	-7.97	-17.80	-23.88
7	Eggs	0.51	10.19	-3.03	-6.56
8	Wheat	0.61	1.02	-0.20	-0.44
9	Wheat flour	3.01	0.29	-0.04	-0.36
10	Gur	0.04	2.50	-1.28	-0.16
11	Wheat products	0.09	2.40	-0.20	-0.06
12	Cigarettes	0.72	0.00	0.00	0.00
13	Dessert preparation	0.04	0.00	0.10	0.01
14	Ice cream	0.10	0.09	0.05	0.01
15	Beverages	0.89	0.57	0.04	0.09
Total		11.41			-470.55

Table A9: Top and Bottom Fifteen Contributors to MoM Urban CPI Non-Food Inflation in December 2021

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Nov-21	Dec-21		
A. Ranked by Weighted Contribution					
1	Electricity charges	4.56	8.32	14.21	216.88
2	Footwear	1.48	0.07	9.22	41.22
3	Transport services	1.75	4.24	5.46	26.03
4	Marriage Hall Charges	1.75	8.09	3.25	16.99
5	Washing soap/detergents/match	1.41	2.24	2.79	12.08
6	Cotton cloth	2.22	2.64	1.25	8.58
7	Woolen cloth	0.84	0.92	3.31	7.98
8	Education	4.88	0.23	0.45	6.54
9	Drugs and medicines	1.07	1.63	1.88	6.48
10	Appliances/Articles/Products for	2.98	0.60	0.59	5.25
11	Household equipments	1.00	0.75	1.71	5.14
12	Woolen readymade garments	0.43	0.93	4.08	5.05
13	Doctor (MBBS) clinic fee	0.40	1.32	1.74	2.80
14	Solid Fuel	0.42	3.61	2.40	2.54
15	Readymade garments	1.32	0.59	0.63	2.40
Total		26.52			365.94
Bottom 15 Contributors					
1	Liquefied Hydrocarbons	0.51	16.32	-4.19	-10.97
2	Motor fuel	2.91	8.40	-0.13	-1.51
3	Newspapers	0.07	0.00	0.00	0.00
4	Communication Services	1.88	0.00	0.00	0.00
5	Postal services	0.02	0.00	0.00	0.00
6	Motor vehicle tax	0.05	0.00	0.00	0.00
7	Gas charges	1.08	0.00	0.00	0.00
8	House rent	19.26	0.00	0.00	0.00
9	Text books	0.67	0.29	0.00	0.00
10	Therapeutic Appliances and	0.01	1.29	1.21	0.02
11	Dental services	0.02	0.40	0.75	0.03
12	Communication apparatus	0.45	0.00	0.05	0.06
13	Plastic products	0.05	0.58	0.56	0.08
14	Accommodation Services	0.13	0.39	0.42	0.13
15	Major tools & equipments	0.01	0.38	5.57	0.13
Total		27.10			-12.03

Table A10: Top Ten Contributors to Rural CPI Inflation (YoY) in December 2021

Items/ Contributors	Weights	YoY Change		Weighted Contribution (%)	
		Dec-20	Dec-21		
A. Ranked by Weighted Contribution					
1	Electricity Charges	3.44	-5.96	59.38	14.82
2	Vegetable Ghee	2.38	18.30	55.47	13.22
3	Milk Fresh	10.38	8.53	10.07	8.32
4	Motor Fuels	2.49	-9.18	38.43	8.27
5	Wheat Flour	3.43	15.79	19.29	5.57
6	House Rent	8.61	5.20	6.64	4.60
7	Liquefied Hydrocarbons	1.00	-3.69	55.56	4.38
8	Readymade Food	3.80	14.58	12.13	4.19
9	Solid Fuel	4.48	14.03	9.88	3.68
10	Cooking Oil	0.60	15.80	57.00	3.35
Total		40.61			70.40
B. Ranked by Percentage Change					
1	Electricity Charges	3.44	-5.96	59.38	14.82
2	Mustard Oil	0.01	15.64	57.78	0.07
3	Cooking Oil	0.60	15.80	57.00	3.35
4	Liquefied Hydrocarbons	1.00	-3.69	55.56	4.38
5	Vegetable Ghee	2.38	18.30	55.47	13.22
6	Motor Fuels	2.49	-9.18	38.43	8.27
7	Pulse Masoor	0.21	20.59	26.81	0.38
8	Gram Whole	0.11	-4.23	26.72	0.21
9	Fresh Fruits	1.45	-10.36	25.83	2.34
10	Honey	0.03	7.33	20.69	0.05
Total		11.72			47.09
C. Ranked by Weights					
1	Milk Fresh	10.38	8.53	10.07	8.32
2	House Rent	8.61	5.20	6.64	4.60
3	Solid Fuel	4.48	14.03	9.88	3.68
4	Readymade Food	3.80	14.58	12.13	4.19
5	Wheat	3.47	28.11	9.51	3.26
6	Electricity Charges	3.44	-5.96	59.38	14.82
7	Wheat Flour	3.43	15.79	19.29	5.57
8	Cotton Cloth	2.84	11.33	9.74	2.66
9	Motor Fuels	2.49	-9.18	38.43	8.27
10	Vegetable Ghee	2.38	18.30	55.47	13.22
Total		45.32			68.59

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 11.6 percent in December 2021.

Table A11: Top Ten Contributors to Rural CPI Inflation (MoM) in December 2021

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Nov-21	Dec-21		
A. Ranked by Weighted Contribution					
1	Electricity Charges	3.44	8.32	14.21	99.93
2	Vegetable Ghee	2.38	7.43	4.80	34.28
3	Solid Fuel	4.48	2.86	2.54	20.47
4	Milk Fresh	10.38	1.12	1.09	19.87
5	Transport Services	1.80	3.13	6.42	18.67
6	Readymade Food	3.80	1.60	2.21	16.92
7	Fresh Fruits	1.45	4.21	7.27	15.62
8	Washing Soaps, Detergents And	1.70	2.17	4.29	13.07
9	Cooking Oil	0.60	7.02	5.13	9.08
10	Drugs And Medicines	1.58	1.65	2.86	8.78
Total		31.61			256.69
B. Ranked by Percentage Change					
1	Electricity Charges	3.44	8.32	14.21	99.93
2	Fresh Fruits	1.45	4.21	7.27	15.62
3	Pulse Masoor	0.21	1.47	7.17	2.41
4	Transport Services	1.80	3.13	6.42	18.67
5	Cooking Oil	0.60	7.02	5.13	9.08
6	Mustard Oil	0.01	7.23	5.01	0.17
7	Vegetable Ghee	2.38	7.43	4.80	34.28
8	Gram Whole	0.11	2.40	4.74	0.91
9	Washing Soaps, Detergents And	1.70	2.17	4.29	13.07
10	Honey	0.03	3.41	4.09	0.22
Total		11.73			194.36
C. Ranked by Weights					
1	Milk Fresh	10.38	1.12	1.09	19.87
2	House Rent	8.61	0.00	0.00	0.00
3	Solid Fuel	4.48	2.86	2.54	20.47
4	Readymade Food	3.80	1.60	2.21	16.92
5	Wheat	3.47	2.32	1.10	8.22
6	Electricity Charges	3.44	8.32	14.21	99.93
7	Wheat Flour	3.43	0.18	-0.35	-2.43
8	Cotton Cloth	2.84	1.89	0.58	3.50
9	Motor Fuels	2.49	8.76	-0.67	-4.07
10	Vegetable Ghee	2.38	7.43	4.80	34.28
Total		45.32			196.69

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 -0.5 percent in December 2021.

Table A12: Top and Bottom Fifteen Contributors to Rural CPI Inflation (YoY) in December 2021

Items/ Contributors	Weights	YoY Change		Weighted Contribution (%)	
		Dec-20	Dec-21		
A. Ranked by Weighted Contribution					
1	Electricity Charges	3.44	-5.96	59.38	14.82
2	Vegetable Ghee	2.38	18.30	55.47	13.22
3	Milk Fresh	10.38	8.53	10.07	8.32
4	Motor Fuels	2.49	-9.18	38.43	8.27
5	Wheat Flour	3.43	15.79	19.29	5.57
6	House Rent	8.61	5.20	6.64	4.60
7	Liquefied Hydrocarbons	1.00	-3.69	55.56	4.38
8	Readymade Food	3.80	14.58	12.13	4.19
9	Solid Fuel	4.48	14.03	9.88	3.68
10	Cooking Oil	0.60	15.80	57.00	3.35
11	Wheat	3.47	28.11	9.51	3.26
12	Meat	1.71	11.73	19.72	3.19
13	Cotton Cloth	2.84	11.33	9.74	2.66
14	Fresh Fruits	1.45	-10.36	25.83	2.34
15	Washing Soaps, Detergents And	1.70	9.59	16.85	2.27
Total		51.78			84.12
Bottom 15 Contributors					
1	Condiments And Spices	1.49	49.63	-21.66	-4.03
2	Potatoes	0.74	46.96	-22.72	-2.91
3	Tomatoes	0.51	-12.86	-30.59	-2.35
4	Chicken	1.46	63.25	-13.43	-2.03
5	Onions	0.90	-27.60	-29.78	-1.97
6	Eggs	0.57	65.35	-8.03	-0.60
7	Pulse Moong	0.25	20.43	-24.53	-0.56
8	Fresh Vegetables	2.09	-10.35	-1.15	-0.21
9	Motor Vehicle Tax	0.02	0.00	-5.56	-0.01
10	Postal Services	0.01	0.00	0.00	0.00
11	Accommodation Services	0.14	0.03	0.00	0.00
12	Newspapers	0.02	2.40	0.00	0.00
13	Dessert Preparation	0.01	9.18	7.66	0.01
14	Garbage Collection	0.01	7.64	11.25	0.01
15	Water Supply	0.06	35.99	1.63	0.01
Total		8.28			-14.64

Table A13: Top and Bottom Fifteen Contributors to Rural CPI (MoM) Inflation in December 2021

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Nov-21	Dec-21		
A. Ranked by Weighted Contribution					
1	Electricity Charges	3.44	8.32	14.21	99.93
2	Vegetable Ghee	2.38	7.43	4.80	34.28
3	Solid Fuel	4.48	2.86	2.54	20.47
4	Milk Fresh	10.38	1.12	1.09	19.87
5	Transport Services	1.80	3.13	6.42	18.67
6	Readymade Food	3.80	1.60	2.21	16.92
7	Fresh Fruits	1.45	4.21	7.27	15.62
8	Washing Soaps, Detergents And	1.70	2.17	4.29	13.07
9	Cooking Oil	0.60	7.02	5.13	9.08
10	Drugs And Medicines	1.58	1.65	2.86	8.78
11	Meat	1.71	2.03	2.20	8.43
12	Wheat	3.47	2.32	1.10	8.22
13	Appliances/Articles/Products For	2.27	0.68	0.95	3.66
14	Hosiery	0.43	2.15	3.44	3.54
15	Household Equipments	1.28	1.66	1.42	3.51
Total		40.77			284.05
Bottom 15 Contributors					
1	Fresh Vegetables	2.09	7.15	-28.66	-147.73
2	Tomatoes	0.51	150.74	-46.56	-93.74
3	Chicken	1.46	-4.41	-18.17	-58.60
4	Sugar	2.03	0.57	-13.25	-55.99
5	Potatoes	0.74	8.23	-15.75	-37.42
6	Onions	0.90	-11.07	-19.01	-21.99
7	Liquefied Hydrocarbons	1.00	13.45	-4.36	-11.30
8	Motor Fuels	2.49	8.76	-0.67	-4.07
9	Wheat Flour	3.43	0.18	-0.35	-2.43
10	Condiments And Spices	1.49	-1.66	-0.44	-1.31
11	Eggs	0.57	6.03	-0.81	-1.13
12	Gur	0.15	-0.28	-3.08	-0.93
13	Recreation And Culture	0.48	1.07	-0.18	-0.15
14	Fish	0.26	3.67	-0.16	-0.07
15	Motor Vehicle Tax	0.02	0.00	0.00	0.00
Total		17.62			-436.86

Table A14: Top and Bottom Fifteen Contributors to MoM Rural CPI Food Inflation in December 2021

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Nov-21	Dec-21		
A. Ranked by Weighted Contribution					
1	Vegetable ghee	2.38	7.43	4.80	34.28
2	Milk fresh	10.38	1.12	1.09	19.87
3	Readymade Food	3.80	1.60	2.21	16.92
4	Fresh fruits	1.45	4.21	7.27	15.62
5	Cooking oil	0.60	7.02	5.13	9.08
6	Meat	1.71	2.03	2.20	8.43
7	Wheat	3.47	2.32	1.10	8.22
8	Pulse Masoor	0.21	1.47	7.17	2.41
9	Sweetmeat	0.40	5.41	2.55	1.88
10	Butter	0.33	1.50	2.85	1.78
11	Dry fruits	0.25	3.49	2.87	1.43
12	Rice	1.55	0.61	0.29	1.06
13	Bakery and Confectionary	0.37	2.74	1.34	0.94
14	Gram Whole	0.11	2.40	4.74	0.91
15	Tea	1.26	3.37	0.39	0.90
Total		28.27			123.73
Bottom 15 Contributors					
1	Fresh Vegetables	2.09	7.15	-28.66	-147.73
2	Tomatoes	0.51	150.74	-46.56	-93.74
3	Chicken	1.46	-4.41	-18.17	-58.60
4	Sugar	2.03	0.57	-13.25	-55.99
5	Potatoes	0.74	8.23	-15.75	-37.42
6	Onions	0.90	-11.07	-19.01	-21.99
7	Wheat Flour	3.43	0.18	-0.35	-2.43
8	Condiments and Spices	1.49	-1.66	-0.44	-1.31
9	Eggs	0.57	6.03	-0.81	-1.13
10	Gur	0.15	-0.28	-3.08	-0.93
11	Fish	0.26	3.67	-0.16	-0.07
12	Ice Cream	0.06	0.00	0.00	0.00
13	Milk products	0.96	2.01	0.00	0.00
14	Dessert Preparation	0.01	0.65	0.33	0.01
15	Milk powder	0.11	0.51	0.14	0.02
Total		14.78			-421.29

Table A15: Top and Bottom Fifteen Contributors to MoM Rural CPI Non-Food Inflation in December 2021

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Nov-21	Dec-21		
A. Ranked by Weighted Contribution					
1	Electricity Charges	3.44	8.32	14.21	99.93
2	Solid Fuel	4.48	2.86	2.54	20.47
3	Transport Services	1.80	3.13	6.42	18.67
4	Washing Soaps, Detergents and	1.70	2.17	4.29	13.07
5	Drugs and Medicines	1.58	1.65	2.86	8.78
6	Appliances/Articles/Products for	2.27	0.68	0.95	3.66
7	Hosiery	0.43	2.15	3.44	3.54
8	Household Equipments	1.28	1.66	1.42	3.51
9	Cotton Cloth	2.84	1.89	0.58	3.50
10	Furniture and Furnishing	0.58	1.68	3.21	3.48
11	Personal Grooming Services	1.54	0.50	1.02	3.24
12	Woolen Cloth	1.10	3.17	1.52	3.09
13	Household Textiles	0.44	3.18	4.00	3.01
14	Woolen Readymade Garments	0.54	9.11	2.48	2.56
15	Hospitals Services	1.01	0.09	1.33	2.24
Total		25.01			192.75
Bottom 15 Contributors					
1	Liquefied Hydrocarbons	1.00	13.45	-4.36	-11.30
2	Motor Fuels	2.49	8.76	-0.67	-4.07
3	Recreation and Culture	0.48	1.07	-0.18	-0.15
4	Accommodation Services	0.14	0.00	0.00	0.00
5	Newspapers	0.02	0.00	0.00	0.00
6	Communication Services	1.65	0.00	0.00	0.00
7	Postal Services	0.01	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	House Rent	8.61	0.00	0.00	0.00
11	Text Books	0.50	0.22	0.00	0.00
12	Communication Apparatus	0.34	0.00	0.05	0.02
13	Motor Vehicles	0.73	2.30	0.02	0.03
14	Garbage Collection	0.01	0.00	2.31	0.03
15	Major Tools and Equipments	0.03	2.94	1.02	0.05
Total		16.09			-15.38

Table A16: Distribution of Price Changes (YoY) - Selected Urban CPI Items: December 2021				
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-Beverages	Ginger (Adrak), Chilies (Green), Tomatoes, Onions, Potatoes, Pulse Moong (Washed), Cauliflower (Phool Gobhi), Chicken Farm Broiler (Live), Carrot (Gajar), Eggs Farm, Cardamom	Cumin Seed (Zeera) White National 50 Gm Packet, Coriander Seed Powder National 200 Gm Packet, Fruit Juice Small Packet 250 Ml, Mineral Water Nestle 1.5 Liter, Fish Rahu	Custard Powder Rafhan 300 Gm Packet, Groundnuts (Moong Phali) With Shell, Rice Irri-6/9 (Sindh/Punjab), Turmeric Powder National 50 Gm Packet, Cold Drink	Pulse Mash (Washed), Rusk (Papay) (Average Quality), Pickle Mitchells/National Bottle (340 Gm-400 Gm), Biscuit Bakery (Loose, Average Quality), Bananas (Kela) Local, Pulse Gram
Alcoholic Beverages & Tobacco		Cigarettes Gold Leaf 20'S Packet, Cigarettes Capstan 20'S Packet,	Pan Prepared (Sweet With Beetle Nuts),	
Clothing & Footwear	Cheetah 50 Size 3-5 Servis,	Dopatta Georgette (Average Quality), Chaddar (Wash-N-Wear) (2X2.5 Meter), Women Shalwar Kameez (Average Quality), Shoe Repair Full Sole,	Dopatta Cotton (Average Quality), Pant Cloth Wash & Wear (Average Quality), Full Pant Boy Length 24"/26", Pullover Gents Oxford/Bonanza, Vest "Baniyan" For Men Average Quality, Brassier (Average Quality), Lawn Printed Gul Ahmed/Al Karam, Pullover Gents (Average Quality), Gent Shoe	Tailoring Charges Simple Suit (Female), Ladies Sponge Chappal Bata, Long Cloth 57" Gul Ahmed/Al Karam, Shoe Polish Charges , Dry Cleaning Charges Pant Coat Both, School Uniform Boys (Pant & Shirt) 24"/26", Shirting (Average Quality), Socks Nylon Local (Average Quality), Children Shoes Power Lite Bata, Ladies Sandal Bata, School Uniform Girls (Kameez & Shalwar)
Housing, Water, Elect, 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,	Bricks New 1St Class, Water Charges Per House, Painter Wage Rate, Charges For Refuse/Waste Collection,	Cement Blocks (6"X8"X12"), House Rent Combined, Sand (Black Pit), Firewood Whole, Synthetic Enamel Ici Balti 3.64 Litre, Mason Wage Rate, Plumber Wage Rate,	Bajri, Electrician Charges, Unskilled Labor Wage Rate, Cement (Local) 50 Kg Bag, Electricity Charges Above 700 Units, Electricity Charges 301-700 Units, Electricity Charges Combined, Electricity Charges 101-300 Units, Iron Bars (M.S. Bar) 1/2 " 40 Grade, Lpg 11.67 Kg
Furnishing & Household Equip. Maintenance etc		Tube Light Philips 40 Watt, Energy Saver Philips 14 Watt, Bed Sheet Double With Two Pillow Covers (Superior Quality), Household Servant Female Part Time, Phenyl Tyfon/Finis 2.75 Litre Bottle, Bed Sheet Single (Superior Quality), Dining Table Wit Glass Top	Chair Plastic (Chairman) (Average Quality), Refrigerator Dawlance/Pel 10 Cubic Feet Double Door, Robin Blue Liquid 75 Ml Bottle, Cot Iron (Charpai), Cleanser Powder Vim 900 Gm Polybag, Plain Carpet, Finis 400 Ml Bottle, Towel Medium Size	Surf Excel 500 Gm Polybag, Sofa Set Five Seater, Water Pump Golden Monoblock/Donkey 0.5 H.P, Lota Plastic Medium Size (Average Quality), Central Table Set With Glass Top, Bucket (Balti) Plastic Medium Size, Washing Machine With Spinner (Super Asia or Similar Brand)
Health	Hydryllin Syrup 120 Ml Bottle,	Glaxose-D 400 Gm Packet, Flagyl Tablets 400 Mg, Sugar Test (Random/Fasting) Charges Of Both, X-Ray (Chest) Charges, Gynecologist Fee Per Visit, Ecg Charges, Daonil Tablets 5 Mg, Physiotherapist Fee Per Visit, Electronic Bp Checking Apparatus	Blood Test (Cp) Charges, Ventolin Tablets 2 Mg, Urine Test (Dr) Charges, Ultrasound Abdominal, Entox Tablets, Calpol Syrup 100 Ml Bottle, Phenergan Syrup 120 Ml Bottle, Dental Extraction Fee,	Dettol Medium Bottle, Johar Joshanda Instant (Sachet) Packet, Doctor (Mbbs) Clinic Fee, Cost Of Surgery (C-Section), Amoxil Capsule 250 Mg, Cac 1000 Tablets Sandzo Bottle, Sepran Tablets, Inderal Tablets 10 Mg, Betnovate-N Ointment 10 Gm Tube, Lederplex Syrup Bottle, Pandol
Transport		Car Suzuki 800 Cc Without Ac, Bus Fare Outside City (Ac), Motorcycle Service Charges, Car Toyota 1300 Cc Xli, Bus Fare Outside City (Non Ac), Train Fare Business Class Per Person, Mini Bus Fare Maximum Within City	Mini Bus Fare Minimum Within City, Car Suzuki 1000 Cc, Car Tax 800 Cc To 1500 Cc, Car Service Charges,	Train Fare Ac Sleeper Per Person, Car Honda Civic Turbo 1.5 Vtec, Bus Fare Minimum Within City, Train Fare Ac Lower Per Person, Bus Fare Maximum Within City, Tire Motorcycle Cd 70 (Back Wheel), Tire Car Mehran Tubeless (General), Tire Car Puncture Charges
Communication	Mobile 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), Telephone Call Charges
Recreation & Culture	Newspaper Daily Dawn, Newspaper Daily Jang, Akhbar-E-Jehan Weekly, Mag The Weekly (Magazine),	Personal Computer With Led Monitor (17") Dell/Hp/Acer Core I5, Ballpoint Pen Local, Cable Charges, Urdu Book Ba/B.Sc, Lead Pencil Goldfish, English Book Ba/B.Sc, Mathematics Book Class Ix And X (Text Book Board)	English Book Class Vi, Laptop Dell/Hp/Acer Core I5, Display (14-15"), Led Sony/Samsung 32" Colored, Mathematics Book Class Xi (Text Book Board), Urdu Book Class Ix And X (Text Book Board)	Exercise Book (With Lines) 80 To 100 Pages, Mathematics Book Class V (Text Book Board), Pen Ink Dollar 57 Ml Bottle, English Book Class Xi Complete Set, English Book Class Ix And X, Photostat Paper 70 Gm, Urdu Book Class V (Text Book Board), Recreational Park Charges
Education		Tuition Fee Private University M.Sc./M.A, Government College Fee First Year, Private College Fee First Year, Vocational Training Basic Computer Short Course Fee (3 Months)		Private Medical College/University Tuition Fee For Mbbs (1St Year),
Restaurant & Hotels		Government Hostel Accommodation Fee For Intermediate College Per Student,	Chicken Biryani Full/Double, Pizza Chicken Medium Size (Average Quality), Marriage Hall Charges With Furniture, Cooked Chicken at Average Hotel	Chicken Roast (Full) (Average Quality), Burger With Shami Kabab (Average Quality), Cooked Daal At Average Hotel, Seekh Kabab (Beef) (Average Quality), Marriage Hall Service Charges With Food (Average Meal), Private Hostel
Miscellaneous		Wall Clock Quartz (Average Quality), Face Cream Ponds Medium Size (Cold), Purse Ladies Medium Size (Average Quality), Hair Style Charges (At Average Beauty Parlor), Shaving Cream (Touchme Large/Admiral), Tissue Paper Perfumed Box 100 Napkins	Toilet Soap Lux 75 Gm, Shampoo Sun Silk/Pantene 90 Ml Bottle, Shaving Charges, Hair Cut Charges For Men, Suitcase Ragzine (24"X16"X6") (Average Quality), Artificial Jewelry (Locket Set) (Average Quality), Electric Hair	Gold Tezabi 24 Carett, Hair Color (Kala Kola), Trunk Medium Size (Average Quality), Tooth Brush (Shield), Hair Oil (Kala Kola Hair Tonic), Lipstick Swiss Miss/Medora (Medium), Blade Treet Ordinary (10 No. Packet), Nail Polish Swiss Miss/Medora (Medium)

Table A17: Distribution of Price Changes (YoY) - Selected Rural CPI Items: December 2021

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 (Green), Tomatoes, Onions, Pulse Moong (Washed), Chilies Powder Loose, Potatoes, Cauliflower (Phool Gobhi), Carrot (Gajar), Chicken Farm Broiler (Live), Eggs Farm, Lemon, Coriander Seed Powder Loose	Brinjal, Salt Powder Loose, Rice Basmati 385/386, Turmeric Powder Loose, Powdered Milk Nido 390 Gm Polybag,	Fruit Juice Small Packet 250 MI, Suji, Chips (Loose), Pulse Mash (Washed), Cold Drink (Pepsi/Coca-Cola) 1.5 Liter Bottle, Fish Fresh, Guava (Amrood) (Average Quality), Peas (Matar), Ice Cream Walls Cup (Large Size), Custard Powder	Milk Fresh (Un-Boiled), Bananas (Kela) Local, Rice Basmati Broken (Average Quality), Groundnuts (Moong Phali) With Shell, Gur (Average Quality), Nimko (Loose, Average Quality), Gram Whole Black (Average Quality), Jam-E-Shireen Standard Size (800 MI), Besan, Samosa
Alcoholic Beverages & Tobacco		Cigarettes Gold Leaf 20'S Packet, Cigarettes Capstan 20'S Packet,	Chewing Tobacco (Niswar), Tobacco Hukka Twisted, Pan Prepared (Sweet With Beetle Nuts)	
Clothing & Footwear		Footware Gents Local (Average Quality), Footware Children Local (Average Quality),	Footware Ladies Local (Average Quality), School Uniform Girls (Kameez & Shalwar) 24"/26", Dopatta Georgette (Average Quality), Chaddar (Wash-N-Wear) (2X2.5 Meter), Long Cloth,	School Uniform Boys (Pant & Shirt) 24"/26", Tailoring Charges Awami Suit (Male), Lawn Printed (Average Quality), Tailoring Charges Simple Suit (Female), Shirting (Average Quality), Socks Nylon Local (Average Quality), Washing Charges Shalwar Kameez, Pullover Gents (Average Quality), Georgette (Average Quality)
Housing, Water, Elect, Gas & other Fuels		Water Charges Per House, Bricks New 1St Class,	House Rent Combined, Firewood Whole, Mason Wage Rate, Painter Wage Rate, Sand (Black Pit), Bajri,	Electrician Charges, Charges For Refuse/Waste Collection, Coal, Carpenter Wage Rate, Plumber Wage Rate, Unskilled Labor Wage Rate, Kerosene Oil, Cement (Local) 50 Kg Bag, Electricity Charges Above 1000 Units, Electricity Charges
Furnishing & Household Equip. Maintenance etc.		Cleanser Powder Vim 900 Gm Polybag, Energy Saver Philips 14 Watt,	Refrigerator Dawlance/Pel 10 Cubic Feet Double Door, Water Cooler 9/10 Litre Plastic Super Quality, Finis 400 MI Bottle, Towel Medium Size (2' X 3'), Lota Plastic Medium Size (Average Quality)	Plates Steel Medium Size (Average Quality), Robin Blue Liquid 75 MI Bottle, Blanket Single (Sn), Express Washing Powder 1 Kg Polybag, Water Pump Golden Monoblock/Donkey 0.5 H.P., Aluminium Cooking Pan (Degchi), Readymade Quilt
Health	Hydrollin Syrup 120 MI Bottle,	Blood Test (Cp) Charges, Daonil Tablets 5 Mg, Cost Of Surgery (C-Section),	X-Ray (Chest) Charges, Dettol Medium Bottle, Amoxil Capsule 250 Mg, Cac 1000 Tablets Sandoz Bottle, Doctor (Mbbs) Clinic Fee	Dental Surgeon Fee Per Visit, Physiotherapist Fee Per Visit, Inderal Tablets 10 Mg, Panadol Tablets Plain, Johar Joshanda Instant (Sachet) Packet
Transport	Car Tax 800 Cc To 1500 Cc, Car Suzuki 800 Cc Without Ac,	Chingchi Rickshaw Charges, Minimum, Motorcycle Service Charges,	Tire Cycle,	Tire Motorcycle Cd 70 (Back Wheel), Tire Car Mehran Tubeless (General), Mobil Oil (Havoline 20W-50), Bicycle, Bus Fare Outside City (Non Ac), Train Fare Economy Per Person, Motorcycle Honda Cd 70, Air Fare Economy Class Per Kilometer
Communication	Postal Registration Charges, Mobile Call Charges,	Internet Charges (Dsl) 1 Mb (Unlimited), Mobile Set With Rear Camera And Without Touch Screen,		Telephone Call Charges,
Recreation & Culture	Newspaper Daily Jang,	Personal Computer With Led Monitor (17") Dell/Hp/Acer Core I5, English Books Class Xi Complete Set, Led Sony/Samsung 32" Colored, English Books Class Vi, Urdu Books Class Ix And X (Text Book Board), Lead Pencil Goldfish	Cable Charges, Exercise Book (With Lines) 80 To 100 Pages, Ballpoint Pen Local, English Books Class Ix And X,	Pets Feed, Urdu Books Class V (Text Book Board),
Education		Vocational Training Basic Computer Short Course Fee (3 Months) , Coaching Fee For Class Ix/X Science Group, Private School Fee English Medium Average Standard (Class V), Private School Fee English Medium Average Standard (Class Vi)		
Restaurant & Hotels	Government Hostel Accommodation Fee For Intermediate College Per Student, Private Hostel Accommodation Fee For Intermediate College Per Student,		Chicken Biryani Full/Double, Pizza Chicken Medium Size (Average Quality), Burger With Shami Kabab (Average Quality), Chicken Roast (Full) (Average Quality)	Marriage Hall Service Charges With Food (Average Meal), Cooked Daal At Average Hotel, Bread Tandoori Standard Size, Seekh Kabab (Beef) (Average Quality), Cooked Beef At Average Hotel, Tea Prepared Ordinary
Miscellaneous		Blade Treet Ordinary (10 No. Packet), Shaving Cream (Touchme Large/Admiral), Purse Ladies Medium Size (Average Quality),	Toilet Soap Lux 75 Gm, Artificial Jewelry (Locket Set) (Average Quality), Suitcase Ragzine (24"X16"X6") (Average Quality), Tooth Paste Colgate 75 Gm	Shampoo Sun Silk/Pantene 90 MI Bottle, Hair Removing Cream (Eu-Cream) 30MI Tube, Disposable Razor Gillette Blue II, Talcum Powder Viceroy/Black Cat, Gold Tezabi 24 Carett, Trunk Medium Size

Table A18: Distribution of Price Changes (YoY) - WPI Items: December 2021

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 & Fishery Products	Stimulant & Spice Crops, Edible Roots / Potatoes, Poultry, Eggs,	Fish Live Fresh or Chilled, Raw Animal Materials / Wool, Sorghum / Jowar, Cotton Seeds, Vegetables, Maize, Dry Fruits,	Rice, Fuel Wood in Logs, Hides, Skins & Fur Skins, Raw,	Raw Milk from Bovine Animals, Wheat, Unmanufactured Tobacco, Fresh Fruits, Sugar Crops, Pulses, Millet / Bajra, Other Oil Seeds, Fiber Crops,
Ores & Minerals, Electricity Gas & Water	Coal not Agglomerated,	Salt & Pure Sodium Chloride, Natural Gas Liquefied,		Electrical Energy,
Food Products, Beverages and Tobacco, Textiles, Apparel and Leather Products	Tobacco Products, Nylon Yarn,	Blankets, Footwears, Processed Liquid Milk, Chocolate, Sugar Confectionary, Mineral Water, Other Food Products, Dairy Products N.E.C, Fruit Juices, Dried Fruits & Nuts, Milk & Cream in Solid Form, Beverages, Readymade Garments,	Bed Sheets, Other Leather N.E.C, Woolen Carpets, Ice Cream, Synthetic Carpets,	Leather Without Hair, Coffee & Tea, Other Fabrics, Quilts, Hosiery Products, Vegetables & Fruit Juice, Cotton Fabrics, Towels, Other Cereal Flour, Wheat Flour, Sugar Refined, Oil Cakes, Woven Fabrics,
Other Transportable Goods except Metal Products, Machinery and Equipments	Printing Paper, Hard Board, Dyeing Material, Insecticides,	Glass sheets, Matches, Pesticides,	Other Glass Articles, Plastic Products, Timber, Bricks, Blocks & Tiles,	Medicines, Ceramics & Sanitary Fixture, Paints & Varnishes, Soaps & Detergents, Auto Tyres, Mobil Oil, Cement, Bed Foam, Motor Spirit, Chemicals, Fertilizers, Diesel Oil, Kerosene Oil,
Metal Product Machinery & Equipment	Vacuum Pumps,	Radio & Television, Electric Wires, Air Conditioners, Steel Products,	Motor Vehicles, Bicycles, Engines & Motors,	Lighting Equipments, Fridge, WashM, SewM, Fans, Iron, Tractors, Chuff Cutter, Lathe Machines, Motorcycles, Concrete Mixture, Pipe Fittings, Steel Bar & Sheets, Cultivators,

Table A19: International Commodity Prices/Indices

Commodity/Indices	Jun-21	Dec-20	Nov-21	Dec-21
Energy				
Crude Oil (US\$ per	71.8	48.7	79.9	72.9
Energy Index (2010 =	93.1	62.9	114.7	111.2
Food				
Rice (\$/MT)	466.0	520.0	400.0	400.0
Wheat (\$/MT)##	263.5	251.2	334.5	327.8
Sugar (US cent/ pound)^	17.4	14.1	19.4	18.8
Palm Oil (\$/MT)	1,004.4	1,016.4	1,340.7	1,270.3
Soybean Oil (\$/MT)	1,518.2	1,026.2	1,443.0	1,411.2
Non-Food Non-Energy				
Cotton Outlook 'A' Index	94.5	81.0	126.5	120.0
^^ Metal Price Index (2010 =	119.0	98.0	125.2	125.2
Copper (\$/MT)	9,631.5	7,772.2	9,728.9	9,551.2
Aluminum (\$/MT)	2,446.7	2,014.7	2,636.5	2,695.5
Iron Ore (\$ cents/dry MT)	214.4	155.4	96.2	117.0
Tin (\$/MT)	32,502.6	19,732.0	39,158.7	39,422.5
Nickel (\$/MT)	17,979.6	16,823.0	19,932.9	20,015.6
Zinc (\$/MT)	2,951.9	2,779.9	3,311.3	3,399.2
Lead (\$/MT)	2,191.0	2,020.5	2,330.0	2,301.7
Uranium (\$/MT)@	32.3	30.2	45.8	42.1
DAP (\$/MT)	604.8	388.5	726.7	745.0
Urea (\$/MT)	393.3	245.0	900.5	890.0

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 January 1968 to June 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

Original Series					
Period	FY18	FY19	FY20	FY21	FY22
Jul	107.15	114.29	123.86	135.38	146.76
Aug	107.31	113.93	125.89	136.23	147.61
Sep	108.05	113.90	126.86	138.32	150.74
Oct	109.22	116.32	129.16	140.67	153.60
Nov	109.95	116.18	130.90	141.83	158.18
Dec	109.92	115.82	130.45	140.86	158.16
Jan	110.01	116.12	133.04	140.56	
Feb	109.72	117.12	131.64	143.09	
Mar	109.96	119.46	131.69	143.61	
Apr	111.15	120.33	130.59	145.09	
May	111.65	121.05	131.01	145.24	
Jun	112.58	121.63	132.08	144.82	
Seasonally Adjusted Series					
Jul	106.98	114.18	123.81	135.39	146.82
Aug	107.22	113.93	125.99	136.43	147.91
Sep	107.69	113.58	126.56	138.03	150.46
Oct	108.23	115.25	127.96	139.34	152.14
Nov	108.79	114.87	129.33	140.04	156.12
Dec	109.78	115.56	130.07	140.36	157.52
Jan	110.18	116.30	133.23	140.76	
Feb	110.40	117.78	132.31	143.75	
Mar	110.49	119.97	132.18	144.07	
Apr	111.23	120.44	130.73	145.27	
May	112.33	121.81	131.86	146.21	
Jun	113.41	122.59	133.21	146.16	

Table A21: Urban CPI Data Series Original and Seasonally Adjusted					
Original Series					
Period	FY18	FY19	FY20	FY21	FY22
Jul	107.71	114.94	124.95	134.73	146.41
Aug	107.93	114.58	126.77	135.82	147.12
Sep	108.38	114.49	127.72	137.53	150.08
Oct	109.34	117.04	129.75	139.27	152.59
Nov	110.03	116.94	131.05	140.16	156.96
Dec	110.08	116.57	130.57	139.67	157.46
Jan	110.28	117.07	132.77	139.45	
Feb	110.12	118.08	131.32	142.61	
Mar	110.43	120.29	131.49	142.99	
Apr	111.94	121.29	130.60	144.91	
May	112.53	122.11	130.99	145.19	
Jun	113.34	122.52	131.89	144.54	
Seasonally Adjusted Series					
Jul	107.42	114.70	124.77	134.60	146.33
Aug	107.71	114.43	126.69	135.82	147.19
Sep	108.07	114.22	127.48	137.31	149.88
Oct	108.57	116.22	128.84	138.29	151.52
Nov	109.16	115.96	129.89	138.87	155.47
Dec	110.17	116.55	130.47	139.48	157.16
Jan	110.50	117.31	133.03	139.71	
Feb	110.77	118.70	131.92	143.19	
Mar	110.99	120.83	131.99	143.46	
Apr	111.83	121.18	130.49	144.79	
May	112.93	122.57	131.51	145.78	
Jun	114.01	123.31	132.82	145.66	

Table A22: Rural CPI Data Series Original and Seasonally Adjusted					
Original Series					
Period	FY18	FY19	FY20	FY21	FY22
Jul	106.30	113.30	122.22	136.36	147.28
Aug	106.37	112.96	124.56	136.84	148.34
Sep	107.54	113.01	125.55	139.51	151.74
Oct	109.05	115.23	128.28	142.79	155.15
Nov	109.83	115.03	130.67	144.34	160.03
Dec	109.68	114.70	130.28	142.65	159.21
Jan	109.60	114.68	133.44	142.23	
Feb	109.11	115.68	132.13	143.82	
Mar	109.25	118.21	132.00	144.55	
Apr	109.95	118.89	130.58	145.37	
May	110.33	119.45	131.03	145.32	
Jun	111.44	120.29	132.36	145.24	
Seasonally Adjusted Series					
Jul	106.33	113.38	122.37	136.58	147.55
Aug	106.47	113.18	124.93	137.36	149.00
Sep	107.11	112.61	125.16	139.12	151.35
Oct	107.72	113.79	126.64	140.92	153.09
Nov	108.22	113.22	128.48	141.80	157.09
Dec	109.18	114.07	129.47	141.69	158.06
Jan	109.70	114.79	133.54	142.35	
Feb	109.83	116.39	132.88	144.59	
Mar	109.73	118.68	132.46	145.01	
Apr	110.32	119.32	131.09	145.98	
May	111.42	120.67	132.40	146.87	
Jun	112.51	121.52	133.80	146.92	

Table A23: National CPI Monthly & Average Seasonal Factors						
Period	FY18	FY19	FY20	FY21	FY22	Average
Jul	100.15	100.09	100.04	99.99	99.96	100.05
Aug	100.09	100.00	99.92	99.85	99.80	99.93
Sep	100.33	100.28	100.24	100.21	100.18	100.25
Oct	100.92	100.92	100.93	100.95	100.96	100.94
Nov	101.07	101.14	101.22	101.28	101.32	101.21
Dec	100.13	100.22	100.29	100.36	100.41	100.28
Jan	99.84	99.84	99.85	99.86		99.85
Feb	99.38	99.44	99.50	99.54		99.47
Mar	99.52	99.57	99.63	99.68		99.60
Apr	99.93	99.91	99.89	99.88		99.90
May	99.40	99.37	99.35	99.33		99.37
Jun	99.27	99.21	99.15	99.08		99.18

Table A24: Urban CPI Monthly & Average Seasonal Factors						
Period	FY18	FY19	FY20	FY21	FY22	Average
Jul	100.27	100.21	100.15	100.10	100.05	100.15
Aug	100.20	100.13	100.06	100.00	99.95	100.07
Sep	100.28	100.23	100.19	100.16	100.14	100.20
Oct	100.71	100.70	100.70	100.71	100.71	100.71
Nov	100.80	100.85	100.89	100.93	100.96	100.89
Dec	99.92	100.01	100.08	100.14	100.19	100.07
Jan	99.80	99.80	99.81	99.82		99.80
Feb	99.41	99.48	99.54	99.60		99.51
Mar	99.50	99.55	99.62	99.68		99.59
Apr	100.10	100.09	100.08	100.08		100.09
May	99.65	99.63	99.61	99.60		99.62
Jun	99.41	99.36	99.30	99.23		99.33

Table A25: Rural CPI Monthly & Average Seasonal Factors						
Period	FY18	FY19	FY20	FY21	FY22	Average
Jul	99.97	99.93	99.88	99.84	99.82	99.89
Aug	99.91	99.80	99.71	99.62	99.56	99.72
Sep	100.40	100.35	100.31	100.28	100.26	100.32
Oct	101.24	101.26	101.30	101.32	101.35	101.29
Nov	101.49	101.60	101.71	101.79	101.87	101.69
Dec	100.45	100.55	100.62	100.68	100.73	100.61
Jan	99.91	99.91	99.91	99.91		99.91
Feb	99.34	99.39	99.43	99.47		99.41
Mar	99.56	99.61	99.65	99.68		99.63
Apr	99.66	99.64	99.61	99.58		99.63
May	99.02	98.99	98.96	98.94		98.98
Jun	99.05	98.99	98.93	98.86		98.96

Table A26: National CPI (Month-on-Month) Original & Seasonally Adjusted					
Original Series					
Period	FY18	FY19	FY20	FY21	FY22
Jul	0.57	1.51	1.83	2.50	1.34
Aug	0.15	-0.31	1.64	0.63	0.58
Sep	0.69	-0.03	0.77	1.53	2.12
Oct	1.09	2.12	1.81	1.70	1.90
Nov	0.66	-0.12	1.35	0.82	2.98
Dec	-0.03	-0.31	-0.34	-0.68	-0.01
Jan	0.08	0.26	1.99	-0.21	
Feb	-0.26	0.86	-1.05	1.80	
Mar	0.22	2.00	0.04	0.36	
Apr	1.08	0.73	-0.84	1.03	
May	0.46	0.60	0.32	0.10	
Jun	0.83	0.48	0.82	-0.29	
Seasonally Adjusted Series					
Jul	-0.25	0.68	0.99	1.64	0.45
Aug	0.22	-0.22	1.76	0.77	0.74
Sep	0.44	-0.31	0.45	1.17	1.73
Oct	0.50	1.47	1.11	0.95	1.12
Nov	0.52	-0.34	1.06	0.50	2.61
Dec	0.91	0.61	0.58	0.23	0.90
Jan	0.37	0.64	2.43	0.29	
Feb	0.19	1.27	-0.70	2.12	
Mar	0.08	1.86	-0.09	0.23	
Apr	0.67	0.39	-1.10	0.83	
May	0.99	1.14	0.87	0.65	
Jun	0.96	0.64	1.02	-0.04	

Table A27: Urban CPI (Month-on-Month) Original & Seasonally Adjusted Series					
Original Series					
Period	FY18	FY19	FY20	FY21	FY22
Jul	0.59	1.41	1.98	2.15	1.29
Aug	0.20	-0.31	1.46	0.81	0.48
Sep	0.42	-0.08	0.75	1.26	2.01
Oct	0.89	2.23	1.59	1.27	1.67
Nov	0.63	-0.09	1.00	0.64	2.86
Dec	0.05	-0.32	-0.37	-0.35	0.32
Jan	0.18	0.43	1.68	-0.16	
Feb	-0.15	0.86	-1.09	2.27	
Mar	0.28	1.87	0.13	0.27	
Apr	1.37	0.83	-0.68	1.34	
May	0.53	0.68	0.30	0.19	
Jun	0.72	0.34	0.69	-0.45	
Seasonally Adjusted Series					
Jul	-0.20	0.61	1.18	1.34	0.46
Aug	0.27	-0.24	1.55	0.90	0.58
Sep	0.34	-0.18	0.62	1.10	1.83
Oct	0.46	1.75	1.07	0.72	1.09
Nov	0.55	-0.23	0.81	0.42	2.61
Dec	0.93	0.51	0.45	0.44	1.09
Jan	0.30	0.65	1.96	0.16	
Feb	0.24	1.19	-0.83	2.49	
Mar	0.19	1.79	0.05	0.19	
Apr	0.76	0.29	-1.14	0.93	
May	0.98	1.15	0.78	0.68	
Jun	0.96	0.60	1.00	-0.08	

Table A28: Rural CPI (Month-on-Month) Original & Seasonally Adjusted Series					
Original Series					
Period	FY18	FY19	FY20	FY21	FY22
Jul	0.54	1.67	1.60	3.02	1.40
Aug	0.07	-0.30	1.91	0.35	0.72
Sep	1.10	0.04	0.79	1.95	2.29
Oct	1.40	1.96	2.17	2.35	2.25
Nov	0.72	-0.17	1.86	1.09	3.15
Dec	-0.14	-0.29	-0.30	-1.17	-0.51
Jan	-0.07	-0.02	2.43	-0.29	
Feb	-0.45	0.87	-0.98	1.12	
Mar	0.13	2.19	-0.10	0.51	
Apr	0.64	0.58	-1.08	0.57	
May	0.35	0.47	0.34	-0.03	
Jun	1.01	0.70	1.02	-0.06	
Seasonally Adjusted Series					
Jul	-0.31	0.78	0.70	2.08	0.43
Aug	0.13	-0.18	2.09	0.57	0.98
Sep	0.60	-0.50	0.19	1.28	1.57
Oct	0.57	1.05	1.18	1.30	1.15
Nov	0.47	-0.50	1.45	0.62	2.61
Dec	0.89	0.75	0.78	-0.08	0.62
Jan	0.47	0.63	3.14	0.47	
Feb	0.12	1.40	-0.49	1.57	
Mar	-0.10	1.96	-0.32	0.29	
Apr	0.54	0.54	-1.04	0.67	
May	1.00	1.13	1.00	0.61	
Jun	0.97	0.70	1.05	0.03	

List of Figures

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

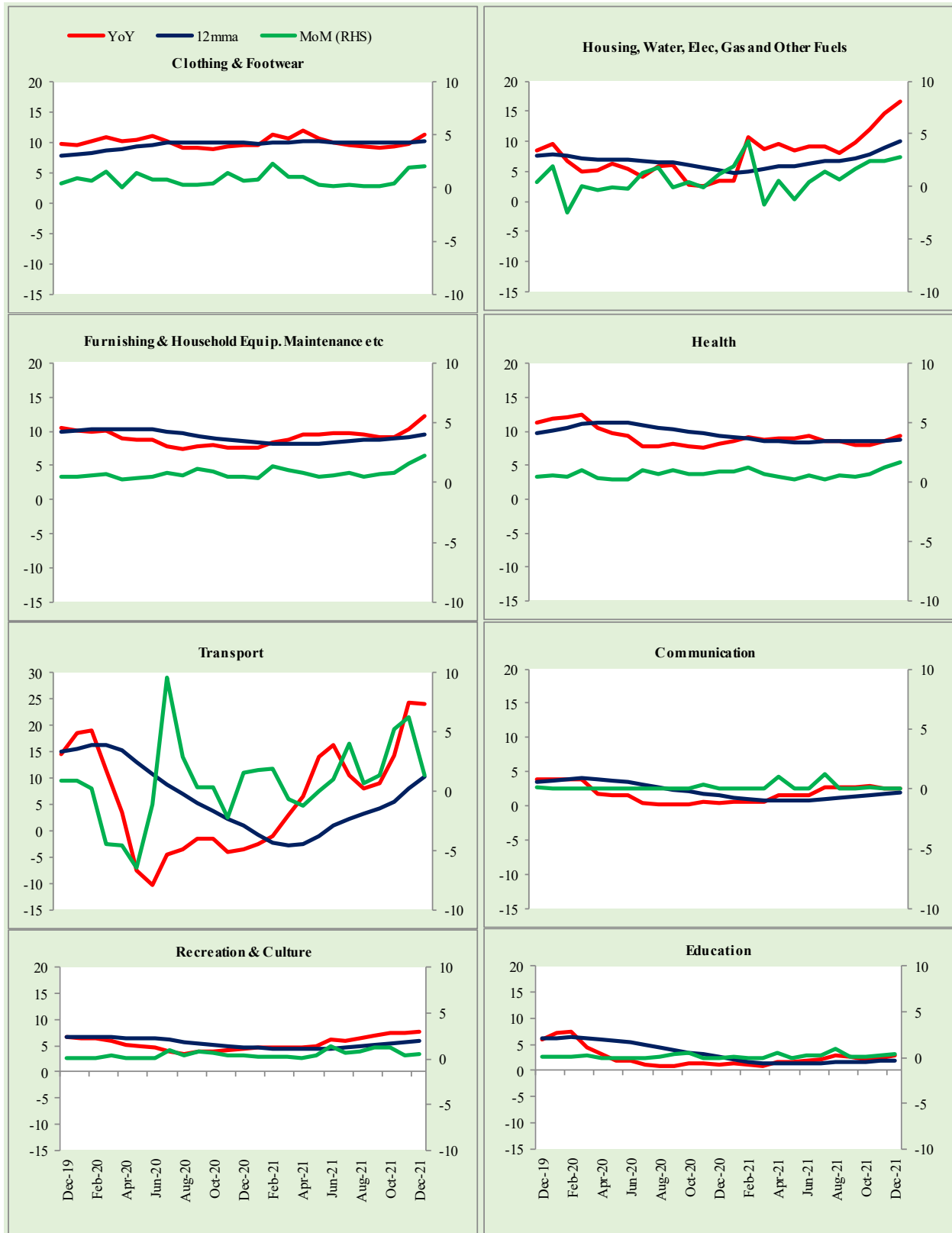


Figure A2: Urban CPI Non-food Inflation (YoY, 12MMA, MoM in percent)

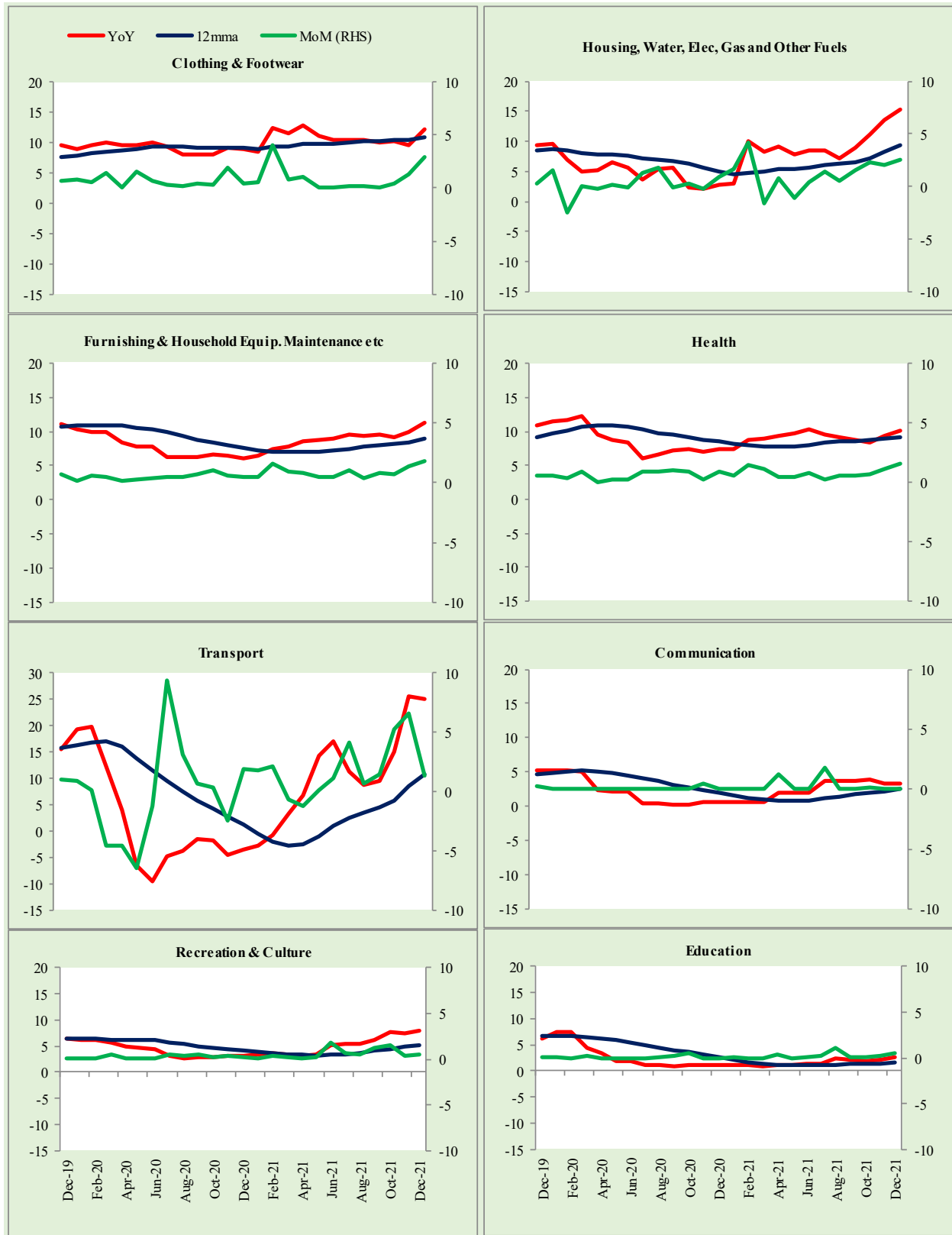
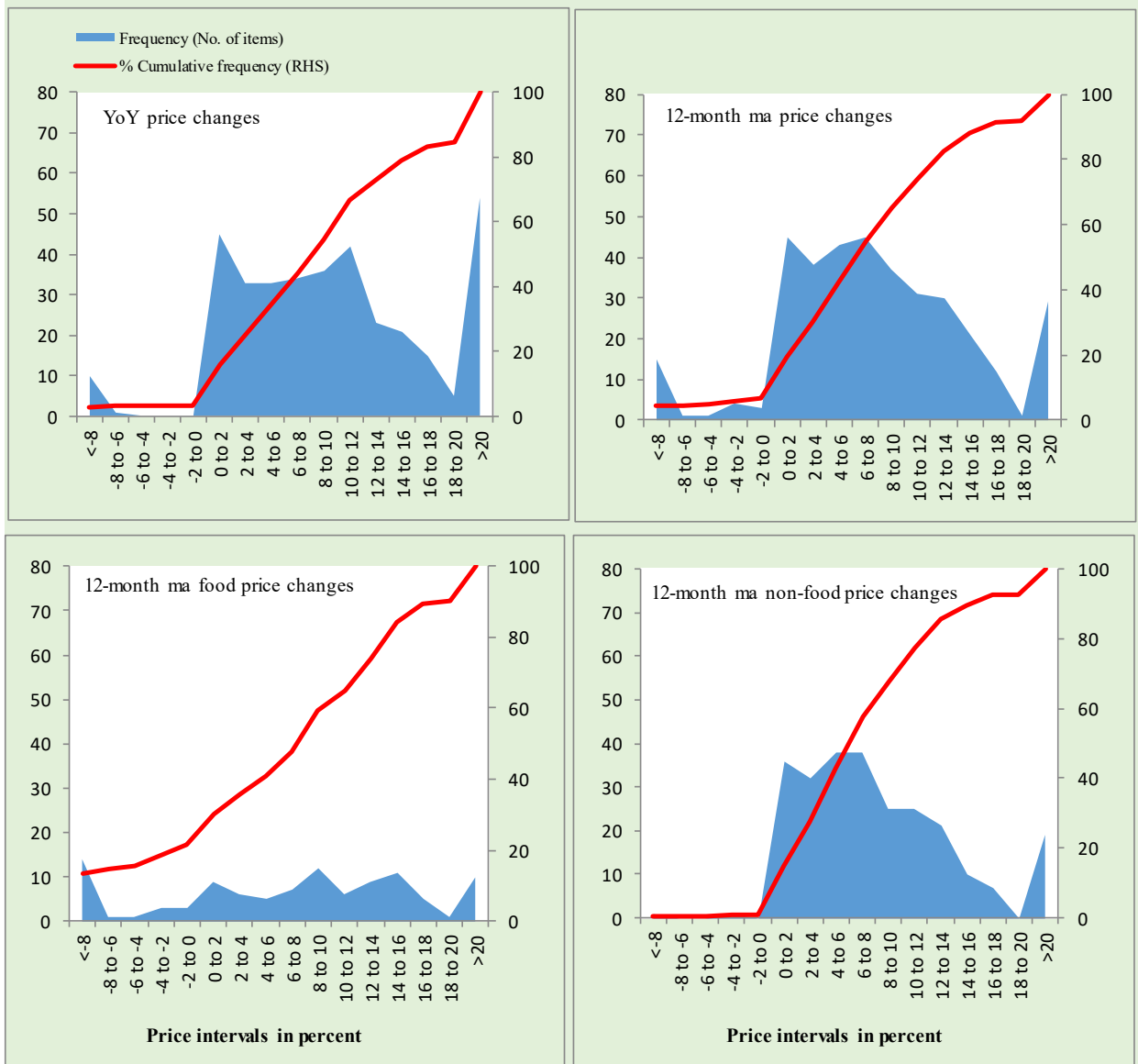


Figure A3: Rural CPI Non-food Inflation (YoY, 12MMA, MoM in percent)

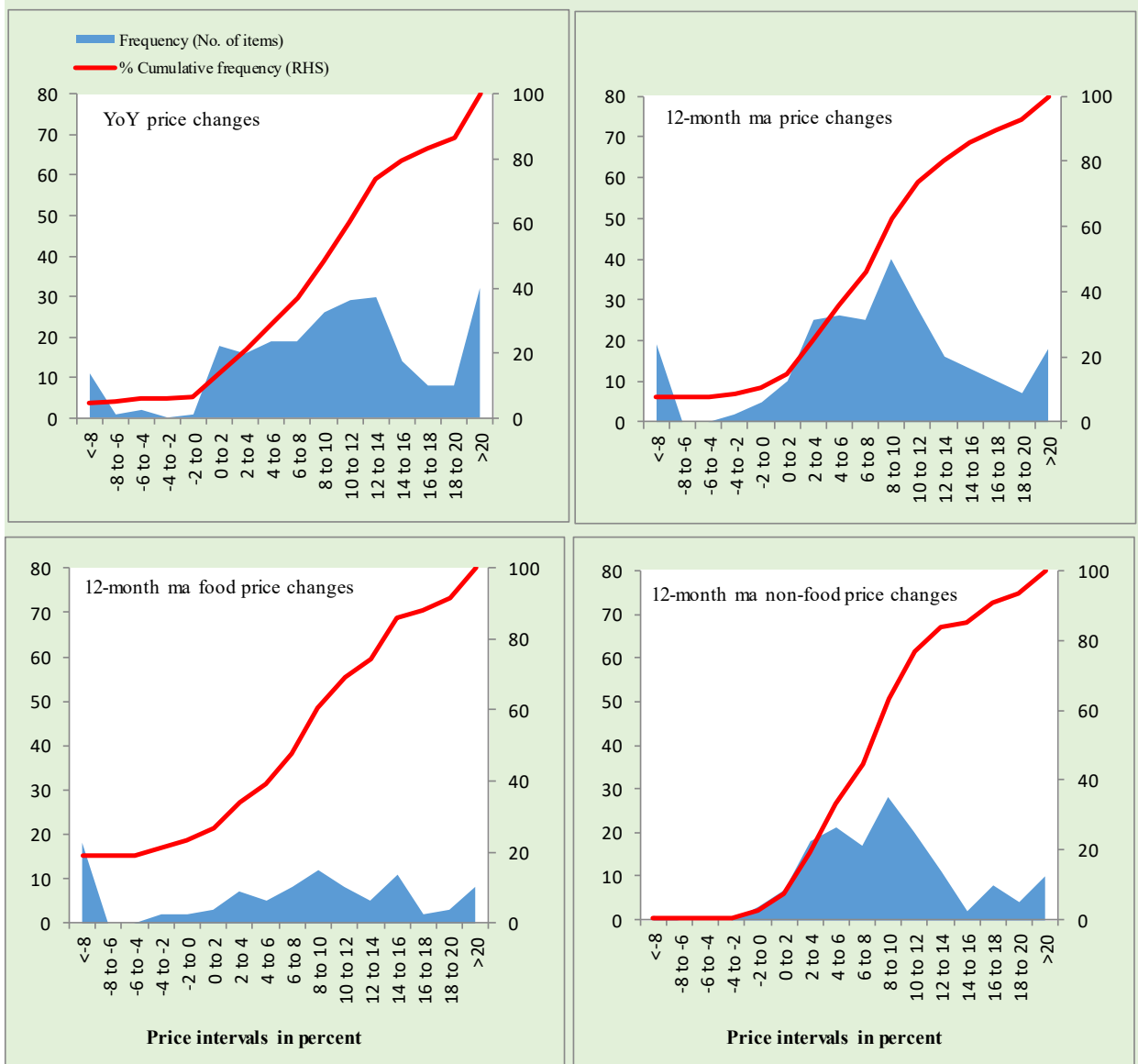


Figure A4: Frequency Distribution of Price Changes of Urban CPI Items (YoY)



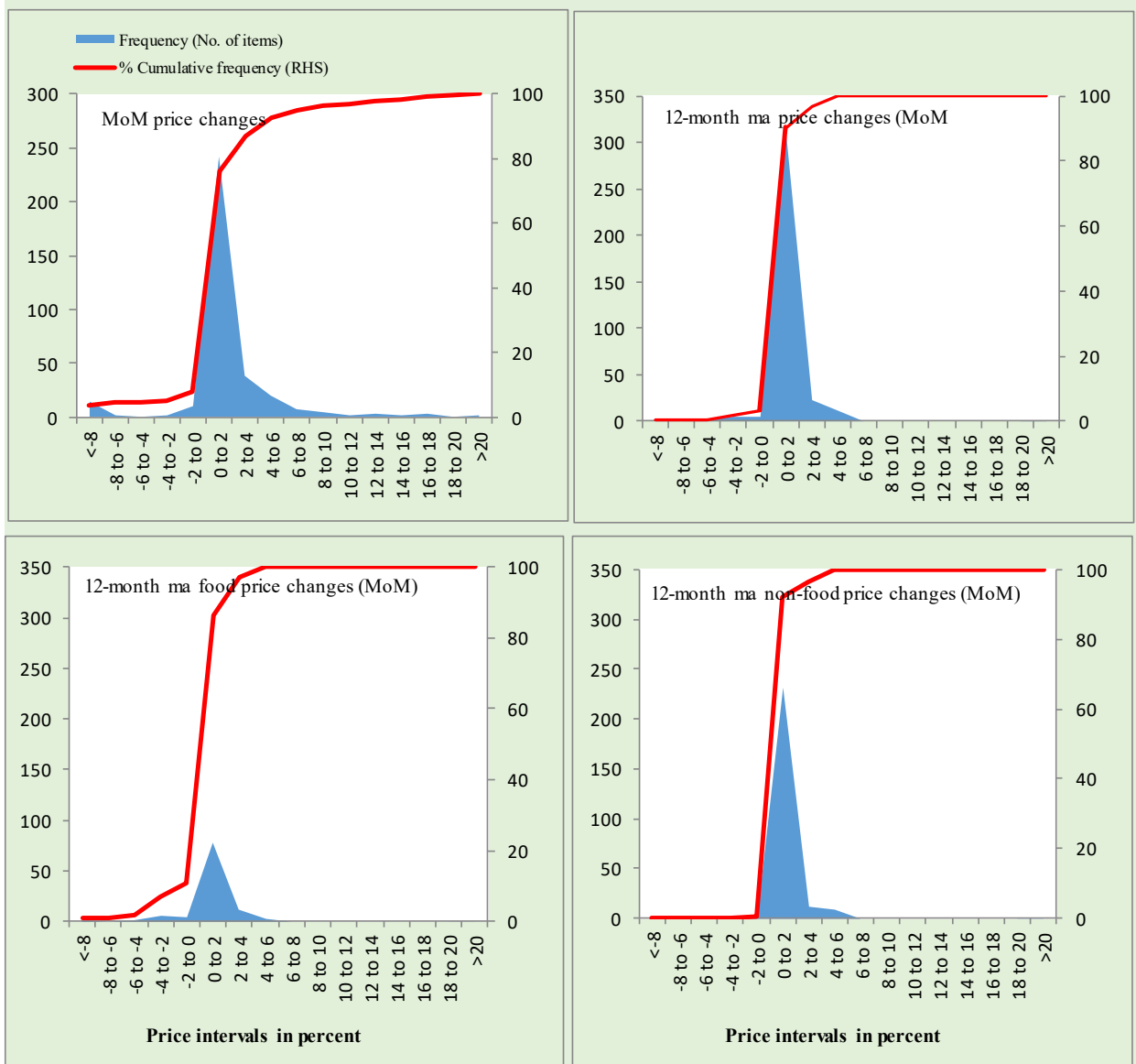
Total Items in CPI Basket (356), Food Items (103) and non-Food Items (253).

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



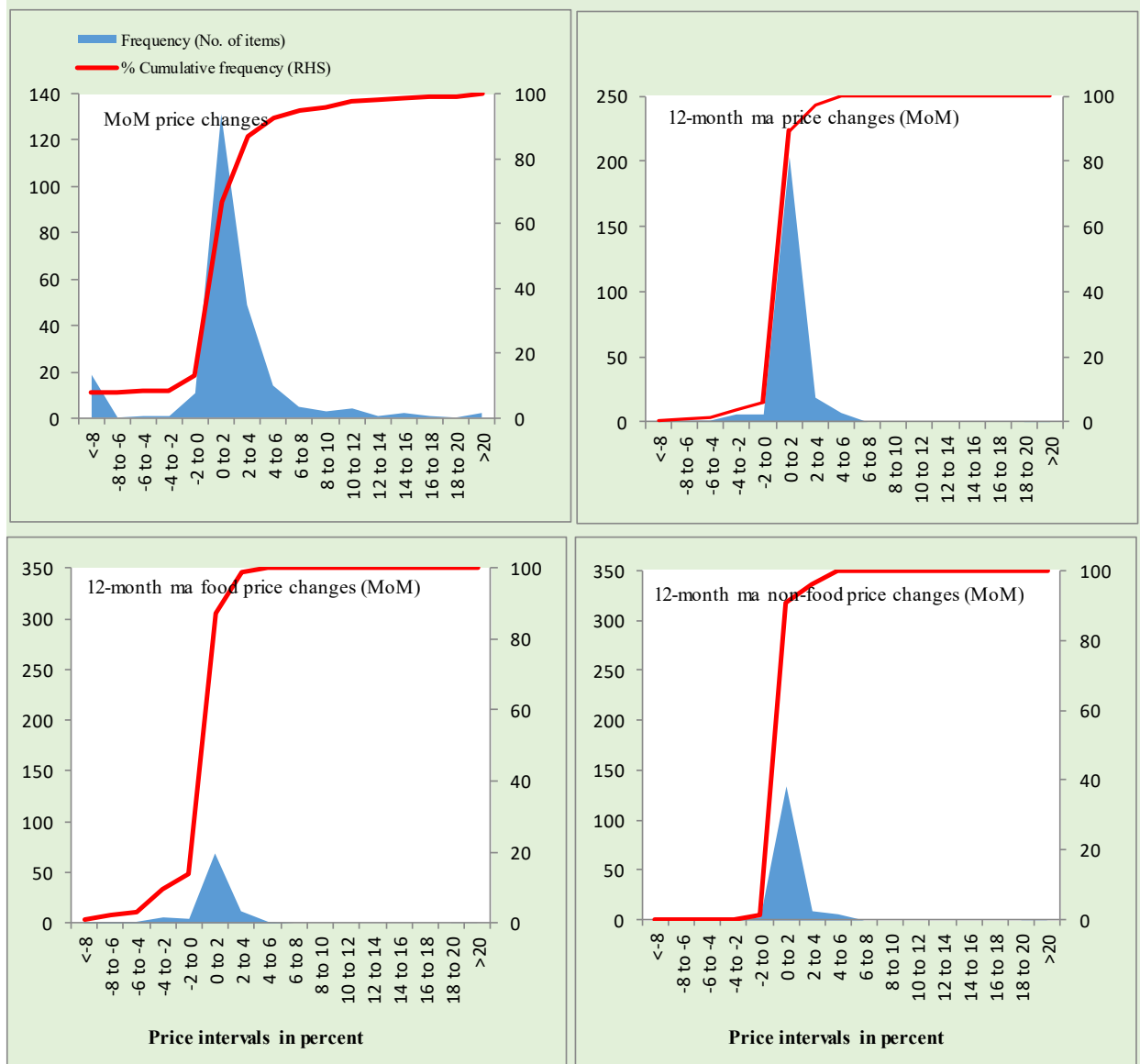
Total Items in CPI Basket (244), Food Items (94) and non-Food Items (150).

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



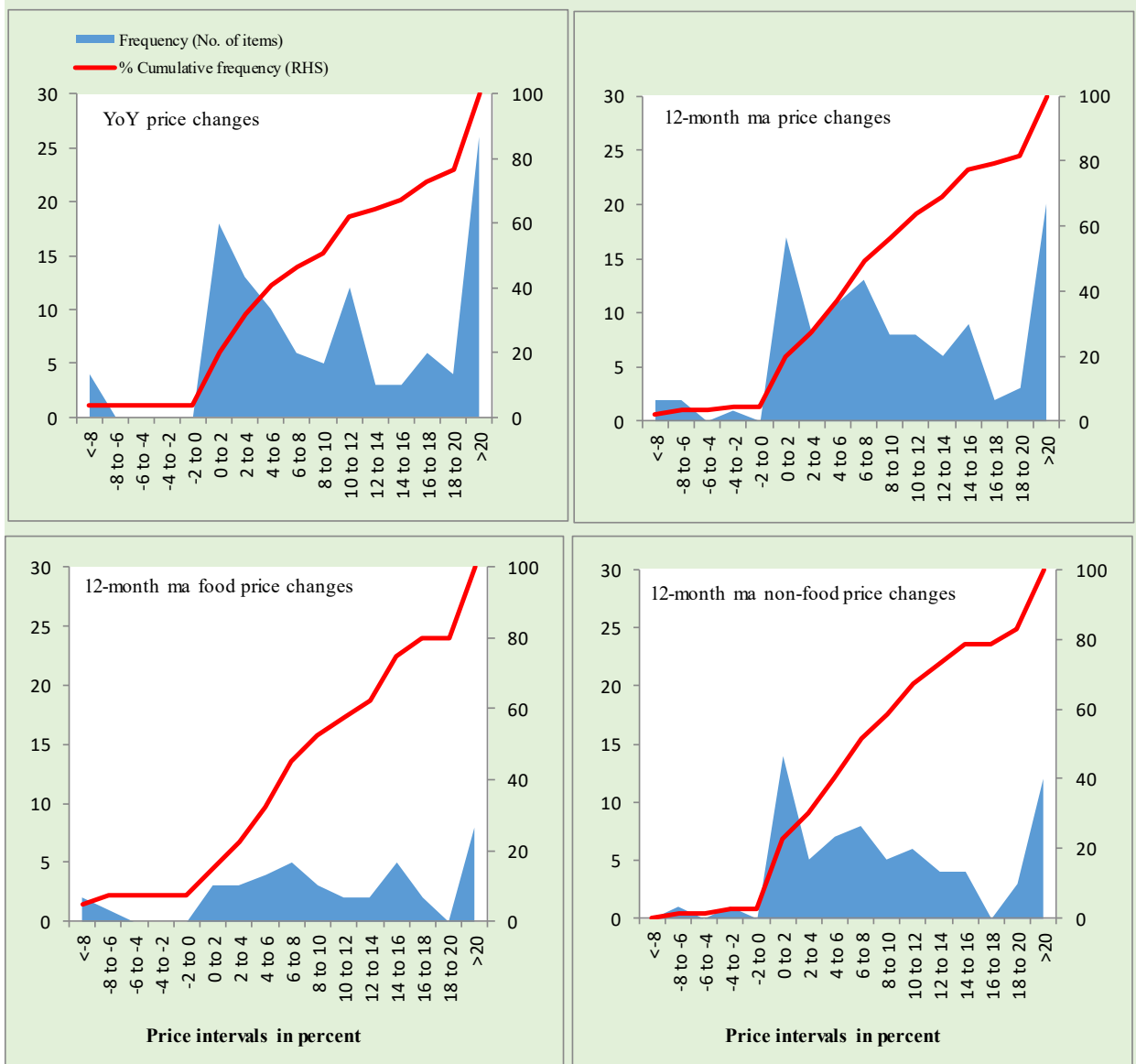
Total Items in CPI Basket (356), Food Items (103) and non-Food Items (253).

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:
- 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.
 - 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).
 - The weighted mean of the changes in price indices of the rest of the items is core inflation.
9. Weighted contribution of different items (or sub-groups) to total inflation is worked out as below: Let the overall index (I_t) is the weighted average of price indices of individual items or sub-groups (I_{it}), i.e.

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

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

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

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

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

reference month

w_i : Weights of i^{th} item

π_{it} : Inflation of i^{th} item

π_t : Overall inflation

10. Annualized rate of inflation (based on a month-on-month rate π) is computed as follows

$$\text{Annualized } \pi = \left(\left(1 + \frac{\pi}{100} \right)^{12} - 1 \right) \times 100$$

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 constant¹.

Based upon item level prices data from July 2001 to February 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 analysis² suggests that IDI was a leading indicator for Pakistan’s YoY inflation.

¹ We do not observe the prices of certain items (like the seasonal items) during certain periods of time. To calculate the inflation diffusion index we consider the items for which prices have been reported (irrespective of changed or not) during the month under review.

² Formal test shows one way ‘Granger’ causality from IDI to YoY inflation.