

Inflation Monitor

November 2021
(Base Year: 2015-16)



State Bank of Pakistan
Statistics & DWH Department

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Team

- Mazhar Hussain Sr. Joint Director
mazhar.hussain@sbp.org.pk
- Syed Aamir Ali Bokhari Joint Director
syed.aamir2@sbp.org.pk
- Haider Ali Deputy Director
haider.ali@sbp.org.pk

1. Inflation in Brief

1. National CPI Inflation as measured by year-on-year (YoY) basis increased from 9.2 percent in October 2021 to 11.5 percent in November 2021 and stood at 8.3 percent in the corresponding month of last year. However, on month-on-month basis (MoM), National CPI Inflation stood at 3.0 percent in November 2021 as compared to 1.9 percent in previous month and 0.8 percent during corresponding month of last year.
2. Urban CPI Inflation increased from 9.6 percent (on year-on-year basis) in October 2021 to 12.0 percent in November 2021. It stood at 7.0 percent during the corresponding month of last year. Urban CPI Inflation (month-on-month basis) increased from 1.7 percent in October 2021 to 2.9 percent in November 2021. It stood at 0.6 percent during corresponding month of last year. Seasonally adjusted month-on-month CPI inflation is recorded at 2.6 percent in November 2021 compared to 1.1 percent in the previous month.
3. Rural CPI Inflation is stood at 10.9 percent on year-on-year basis in November 2021 as compared to 8.7 percent during the previous month and 10.5 percent during the corresponding month of last year. Rural CPI inflation on month-on-month basis increased to 3.1 percent in November 2021 from 2.2 percent in the previous month and stood at 1.1 percent during the corresponding month of last year. Seasonally adjusted month-on-month CPI inflation recorded at 2.6 percent in November 2021 compared to 1.2 percent in the previous month.
4. Urban Core Inflation (trimmed) on year-on-year basis increased to 9.8 percent in November 2021 from 8.7 percent in previous month and stood at 6.3 percent during the corresponding month of last year. On month-on-month basis, Urban Core Inflation (trimmed) stood at 1.7 percent in November 2021 compared to 1.1 percent in previous month and 0.2 percent during the corresponding month of last year.
5. Rural Core Inflation (trimmed) on year-on-year basis increased to 9.5 percent in November 2021 from 8.2 percent in October 2021 and stood at 9.1 percent during the corresponding month of last year. On month-on-month basis, Rural Core Inflation (trimmed) recorded at 2.2 percent in November 2021 compared to 1.6 percent in previous month and 0.4 percent during corresponding month of last year.
6. Urban Core (Non-food, Non-energy (NFNE)) Inflation on year-on-year basis increased from 6.7 in October 2021 to 7.6 percent in November 2021 and recorded 5.6 percent during corresponding month of last year. On month-on-month basis, it increased to 1.1 percent in November 2021 from 0.9 percent in October 2021 and recorded 0.3 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 8.2 percent in November 2021 as compared to 6.7 percent in previous month and 7.4 percent during the corresponding month of last year. Whereas on month-on-month basis, it increased from 1.0 percent in October 2021 to 1.8 percent in November 2021. It stood at 0.3 percent during the corresponding month of last year.

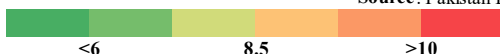
8. WPI Inflation on year-on-year basis increased from 21.2 percent in October 2021 to 27.0 percent in November 2021. It stood at 5.0 percent during the corresponding month of last year. On contrary, WPI Inflation (month-on-month basis) decreased to 3.8 percent in November 2021 from 4.2 percent in previous month.
9. SPI Inflation on year-on-year basis increased to 17.4 percent in November 2021 from 14.0 percent in October 2021. During corresponding month of last year, SPI stood at 8.0 percent. On month-on-month basis, SPI Inflation stood at 4.1 percent in November 2021 compared to 3.1 percent in the previous month. It stood at 1.2 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/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.

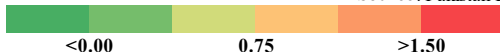
		Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21
Headline	National	8.3	8.0	5.7	8.7	9.1	11.1	10.9	9.7	8.4	8.4	9.0	9.2	11.5
	Urban	7.0	7.0	5.0	8.6	8.7	11.0	10.8	9.6	8.7	8.3	9.1	9.6	12.0
	Rural	10.5	9.5	6.6	8.8	9.5	11.3	10.9	9.7	8.0	8.4	8.8	8.7	10.9
Food	Urban	13.0	12.6	7.3	10.3	11.5	15.7	15.3	11.0	9.4	10.2	10.8	9.4	11.9
	Rural	16.1	13.4	7.2	9.1	11.1	14.1	12.8	9.8	7.3	9.1	9.1	7.2	8.6
Core	Urban	5.6	5.6	5.4	6.4	6.3	7.0	6.8	6.7	6.9	6.3	6.4	6.7	7.6
	Rural	7.4	7.7	7.8	7.7	7.3	7.7	7.6	7.3	6.9	6.2	6.2	6.7	8.2

Source: Pakistan Bureau of Statistics and SBP staff estimates

Key 


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

Source: Pakistan Bureau of Statistics and SBP staff estimates

Key 

	Weights	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21
National	100.00	8.3	8.0	5.7	8.7	9.1	11.1	10.9	9.7	8.4	8.4	9.0	9.2	11.5
Food and Non-Alcoholic Beverages	34.58	15.1	13.3	6.7	9.7	11.6	15.9	14.8	10.5	8.2	10.0	10.2	8.3	10.5
Alcoholic Beverages, Tobacco	1.02	5.9	6.0	5.8	5.7	5.9	4.9	5.0	5.0	3.1	2.1	2.0	1.9	1.8
Clothing and Footwear	8.60	9.5	9.6	9.5	11.3	10.7	11.9	10.7	10.0	9.5	9.3	9.2	9.3	9.8
Housing, Water, Elec., Gas and Other Fuels	23.63	2.6	3.5	3.4	10.6	8.8	9.7	8.4	9.1	9.2	8.0	9.8	12.0	14.8
Furnishing and Household Equipment Maintenance	4.10	7.7	7.7	7.6	8.5	8.9	9.5	9.6	9.8	9.8	9.6	9.3	9.2	10.4
Health	2.79	7.6	8.1	8.5	9.2	8.8	9.0	9.0	9.4	8.6	8.5	8.0	8.0	8.5
Transport	5.91	-4.1	-3.5	-2.6	-1.0	2.9	6.5	14.0	16.4	10.5	8.1	9.1	14.4	24.4
Communication	2.21	0.6	0.5	0.5	0.6	0.6	1.5	1.5	1.6	2.8	2.8	2.8	2.8	2.5
Recreation and Culture	1.59	4.2	4.4	4.6	4.8	4.6	4.6	4.9	6.2	5.9	6.4	6.9	7.5	7.5
Education	3.79	1.3	1.2	1.3	1.2	1.0	1.6	1.6	1.8	2.0	2.9	2.6	2.2	2.4
Restaurants and Hotels	6.92	9.3	9.9	8.9	8.0	8.1	8.2	8.6	8.8	8.5	7.3	7.8	8.3	11.0
Misc. Goods and Services	4.87	11.9	11.9	11.5	12.3	10.6	10.0	10.7	10.9	9.4	5.9	7.4	8.7	10.0

Source: Pakistan Bureau of Statistics and SBP staff estimates

Key 

Heat-map of Urban CPI inflation (YoY)														
Weights	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	
National	100.00	7.0	7.0	5.0	8.6	8.7	11.0	10.8	9.6	8.7	8.3	9.1	9.6	12.0
Food and Non-Alcoholic Beverages	30.42	13.8	13.1	6.7	10.5	11.9	17.0	16.3	11.1	9.2	10.6	11.1	9.4	12.2
Alcoholic Beverages, Tobacco	0.85	6.7	6.6	6.2	6.3	6.9	6.0	6.1	3.8	2.8	2.6	2.1	1.9	
Clothing and Footwear	8.01	9.1	8.8	8.5	12.3	11.5	12.7	11.2	10.5	10.4	10.3	10.0	10.2	9.5
Housing, Water, Elec., Gas and Other Fuels	27.03	2.2	2.8	2.9	10.0	8.2	9.3	7.9	8.4	8.5	7.2	8.9	11.1	13.6
Furnishing and Household Equipment Maintenance	4.09	6.4	6.1	6.4	7.4	7.9	8.6	8.8	8.9	9.5	9.4	9.5	9.1	10.0
Health	2.31	7.1	7.4	7.4	8.7	8.9	9.4	9.6	10.3	9.5	9.1	8.7	8.4	9.3
Transport	6.14	-4.5	-3.6	-2.8	-0.8	3.2	6.8	14.2	17.0	11.4	8.8	9.7	15.0	25.7
Communication	2.35	0.7	0.6	0.6	0.7	0.7	2.0	2.0	3.8	3.8	3.8	3.8	3.8	3.4
Recreation and Culture	1.73	3.2	3.3	3.3	3.6	3.3	3.2	3.4	5.1	5.4	5.5	6.3	7.6	7.5
Education	4.88	1.1	1.0	1.1	1.1	0.9	1.2	1.2	1.3	1.5	2.5	2.3	1.9	2.2
Restaurants and Hotels	7.41	9.3	10.0	8.7	7.9	8.4	8.5	9.1	9.4	9.5	7.6	8.5	8.6	11.4
Misc. Goods and Services	4.77	10.4	10.6	10.4	11.8	10.3	9.8	10.8	10.9	9.3	6.1	8.0	9.3	10.1

Source: Pakistan Bureau of Statistics and SBP staff estimates

<6 8.5 >10

Heat-map of Rural CPI inflation (YoY)														
Weights	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	
National	100.00	10.5	9.5	6.6	8.8	9.5	11.3	10.9	9.7	8.0	8.4	8.8	8.7	10.9
Food and Non-Alcoholic Beverages	40.87	16.7	13.5	6.6	8.9	11.2	14.7	13.2	9.8	7.2	9.3	9.3	7.1	8.7
Alcoholic Beverages, Tobacco	1.28	5.0	5.4	5.3	5.0	4.8	3.7	3.8	3.8	2.4	1.4	1.3	1.6	1.7
Clothing and Footwear	9.48	9.9	10.6	10.7	10.1	9.7	10.8	10.0	9.3	8.4	8.1	8.2	8.2	10.1
Housing, Water, Elec., Gas and Other Fuels	18.49	3.6	4.9	4.5	12.2	10.1	10.7	9.7	10.7	10.6	9.7	11.6	14.0	17.5
Furnishing and Household Equipment Maintenance	4.10	9.6	10.0	9.5	10.1	10.3	10.8	10.8	11.0	10.3	10.0	8.9	9.3	11.0
Health	3.51	8.2	8.8	9.6	9.8	8.8	8.6	8.4	8.6	7.7	7.8	7.3	7.5	7.8
Transport	5.56	-3.5	-3.3	-2.2	-1.2	2.4	6.1	13.5	15.5	9.0	6.9	8.2	13.4	22.3
Communication	1.99	0.4	0.4	0.4	0.3	0.4	0.8	0.8	0.9	1.0	1.0	0.9	1.0	0.8
Recreation and Culture	1.38	6.0	6.6	7.0	7.0	7.0	7.5	8.0	6.9	8.0	7.9	7.3	7.5	
Education	2.13	2.1	2.0	2.1	1.8	1.5	2.9	2.9	3.6	4.1	4.5	4.1	3.2	3.2
Restaurants and Hotels	6.19	9.3	9.6	9.3	8.2	7.8	7.6	7.6	7.7	6.8	6.9	6.6	7.6	10.3
Misc. Goods and Services	5.02	14.1	13.8	13.2	12.8	11.1	10.3	10.6	10.9	9.5	5.7	6.5	7.9	9.7

Source: Pakistan Bureau of Statistics and SBP staff estimates

<6 8.5 >10

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

Source: Pakistan Bureau of Statistics and SBP staff estimates

<0.00 0.75 >1.50

Heat-map of Urban CPI inflation (MoM)														
Weights	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	
National	100.00	0.6	-0.3	-0.2	2.3	0.3	1.3	0.2	-0.4	1.3	0.5	2.0	1.7	2.9
Food and Non-Alcoholic Beverages	30.42	1.7	-2.6	-2.7	1.5	1.8	3.2	1.1	-2.5	1.7	0.6	4.0	1.6	4.3
Alcoholic Beverages, Tobacco	0.85	0.5	0.0	0.0	0.2	0.6	0.1	0.2	0.1	0.0	0.0	0.2	0.2	0.3
Clothing and Footwear	8.01	1.9	0.5	0.5	4.1	0.8	1.1	0.1	0.1	0.2	0.1	0.1	0.4	1.3
Housing, Water, Elec., Gas and Other Fuels	27.03	-0.3	0.9	1.6	4.2	-1.6	0.7	-1.1	0.4	1.4	0.5	1.6	2.3	2.0
Furnishing and Household Equipment Maintenance	4.09	0.6	0.5	0.5	1.6	0.9	0.8	0.5	0.5	1.0	0.4	0.8	0.7	1.4
Health	2.31	0.2	0.9	0.6	1.5	1.1	0.5	0.5	0.8	0.2	0.6	0.6	0.6	1.1
Transport	6.14	-2.4	1.9	1.8	2.2	-0.7	-1.2	0.1	1.2	4.1	0.7	1.5	5.3	6.6
Communication	2.35	0.4	0.1	0.1	0.1	0.0	1.3	0.0	0.0	1.8	0.0	0.0	0.1	0.0
Recreation and Culture	1.73	0.4	0.2	0.1	0.4	0.3	0.0	0.2	1.8	0.7	0.6	1.3	1.5	0.3
Education	4.88	0.0	0.0	0.1	0.0	0.0	0.3	0.0	0.1	0.2	1.1	0.0	0.2	0.2
Restaurants and Hotels	7.41	0.9	0.7	0.7	0.4	1.1	0.2	0.6	0.8	0.4	0.1	1.4	1.0	3.5
Misc. Goods and Services	4.77	0.9	0.4	1.0	1.6	-0.3	0.6	0.8	0.9	0.1	0.5	1.4	1.0	1.7

Source: Pakistan Bureau of Statistics and SBP staff estimates

<0.00 0.75 >1.50

Heat-map of Rural CPI inflation (MoM)														
	Weights	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21
National	100.00	1.1	-1.2	-0.3	1.1	0.5	0.6	0.0	-0.1	1.4	0.7	2.3	2.2	3.1
Food and Non-Alcoholic Beverages	40.87	2.1	-3.9	-2.6	0.1	1.7	1.0	0.2	-0.9	1.8	0.9	4.1	2.7	3.6
Alcoholic Beverages, Tobacco	1.28	0.0	0.4	0.2	0.1	0.0	-0.4	0.2	0.3	-0.1	0.0	0.6	0.5	0.1
Clothing and Footwear	9.48	0.9	0.9	1.2	0.3	1.3	1.0	0.5	0.3	0.4	0.1	0.4	0.6	2.6
Housing, Water, Elec., Gas and Other Fuels	18.49	0.3	1.8	2.5	4.6	-1.8	0.0	-1.4	0.6	1.5	1.0	1.7	2.7	3.3
Furnishing and Household Equipment Maintenance	4.10	0.4	0.7	0.4	1.1	1.2	0.9	0.6	0.7	0.7	0.6	0.7	1.0	2.0
Health	3.51	1.0	0.9	1.3	0.9	0.3	0.5	0.1	0.3	0.3	0.5	0.4	0.7	1.3
Transport	5.56	-2.0	1.2	2.0	1.5	-0.6	-1.2	0.1	0.9	3.9	0.8	1.0	5.2	5.8
Communication	1.99	0.2	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.1	0.2	0.0	0.2	0.0
Recreation and Culture	1.38	0.3	0.8	0.7	0.1	0.2	0.2	0.8	0.5	0.5	1.2	1.1	0.7	0.5
Education	2.13	0.0	0.0	0.1	0.1	0.0	1.4	0.0	0.7	0.5	0.4	0.0	0.1	0.0
Restaurants and Hotels	6.19	1.0	0.5	0.6	0.4	0.1	0.2	0.6	0.5	0.3	0.7	0.6	1.9	3.5
Misc. Goods and Services	5.02	0.4	-0.1	1.0	0.9	-0.7	0.2	0.5	1.1	1.2	0.1	1.3	1.9	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	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21
Rural	100.00	10.5	9.5	6.6	8.8	9.5	11.3	10.9	9.7	8.0	8.4	8.8	8.7	10.9
Food	45.95	16.1	13.4	7.2	9.1	11.1	14.1	12.8	9.8	7.3	9.1	9.1	7.2	8.6
Non-perishable	40.16	18.9	16.8	13.1	13.9	16.9	17.2	16.9	12.2	10.3	9.9	12.3	11.2	11.7
Perishable	5.79	7.4	-1.6	-23.9	-19.3	-19.4	0.5	-8.2	-5.5	-9.7	5.4	-6.8	-12.5	-5.5
Non Food	54.05	5.5	6.1	6.1	8.6	8.1	8.9	9.2	9.7	8.7	7.7	8.5	10.0	13.0
Energy	11.41	-1.6	0.6	0.1	12.3	11.1	13.8	16.0	19.8	15.7	13.8	17.2	23.2	32.0
NFNE (Core)	42.64	7.4	7.7	7.8	7.7	7.3	7.7	7.6	7.3	6.9	6.2	6.2	6.7	8.2
HRI	8.61	5.2	5.2	5.8	5.8	5.8	6.6	6.6	6.6	6.1	6.1	6.1	6.6	6.6
Core Excl HRI	34.03	8.0	8.3	8.2	8.1	7.7	8.0	7.8	7.5	7.1	6.3	6.3	6.7	8.6

Source: Pakistan Bureau of Statistics and SBP staff estimates

<6 8.5 >10

Heat-map of Urban CPI inflation (YoY)														
	Weights	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21
Urban	100.00	7.0	7.0	5.0	8.6	8.7	11.0	10.8	9.6	8.7	8.3	9.1	9.6	12.0
Food	36.80	13.0	12.6	7.3	10.3	11.5	15.7	15.3	11.0	9.4	10.2	10.8	9.4	11.9
Non-perishable	32.34	15.9	15.9	12.2	15.4	17.2	19.4	19.3	13.5	12.7	12.2	15.3	13.2	15.3
Perishable	4.46	5.0	0.4	-18.9	-15.7	-15.6	4.6	-0.2	-2.5	-8.7	1.7	-9.6	-8.9	-1.9
Non Food	63.20	3.4	3.8	3.7	7.6	7.1	8.2	8.3	8.8	8.2	7.2	8.1	9.7	12.0
Energy	9.47	-7.2	-5.2	-4.5	14.2	11.8	14.9	16.6	21.1	16.1	12.2	17.8	25.9	37.2
NFNE (Core)	53.73	5.6	5.6	5.4	6.4	6.3	7.0	6.8	6.7	6.9	6.3	6.4	6.7	7.6
HRI	19.26	4.7	4.7	4.8	4.8	4.8	6.2	6.2	6.2	6.1	6.1	6.1	6.6	6.6
Core Excl HRI	34.47	6.1	6.1	5.7	7.3	7.1	7.5	7.2	7.0	7.3	6.4	6.5	6.8	8.1

Source: Pakistan Bureau of Statistics and SBP staff estimates

<6 8.5 >10

Heat-map of Rural CPI inflation (MoM)														
	Weights	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21
Rural	100.00	1.1	-1.2	-0.3	1.1	0.5	0.6	0.0	-0.1	1.4	0.7	2.3	2.2	3.1
Food	45.95	2.0	-3.4	-2.2	0.2	1.5	0.9	0.2	-0.8	1.6	0.8	3.7	2.6	3.3
Non-perishable	40.16	1.3	-1.3	1.0	1.7	1.6	-1.2	1.8	-1.0	0.4	0.5	4.1	2.0	1.8
Perishable	5.79	6.0	-16.0	-21.6	-11.1	2.8	18.5	-10.2	-0.3	12.1	3.3	4.3	7.1	14.5
Non Food	54.05	0.2	1.0	1.5	2.0	-0.4	0.3	-0.3	0.6	1.2	0.6	1.0	1.9	3.0
Energy	11.41	-0.1	2.9	2.9	7.9	-2.8	-1.3	-2.4	1.1	3.1	2.2	2.9	5.2	7.0
NFNE (Core)	42.64	0.3	0.5	1.1	0.5	0.3	0.7	0.3	0.4	0.7	0.2	0.5	1.0	1.8
HRI	8.61	0.0	0.0	2.8	0.0	0.0	1.2	0.0	0.0	1.2	0.0	0.0	1.3	0.0
Core Excl HRI	34.03	0.4	0.7	0.7	0.6	0.3	0.6	0.4	0.5	0.6	0.2	0.6	1.0	2.2

Source: Pakistan Bureau of Statistics and SBP staff estimates

<0.00 0.75 >1.50

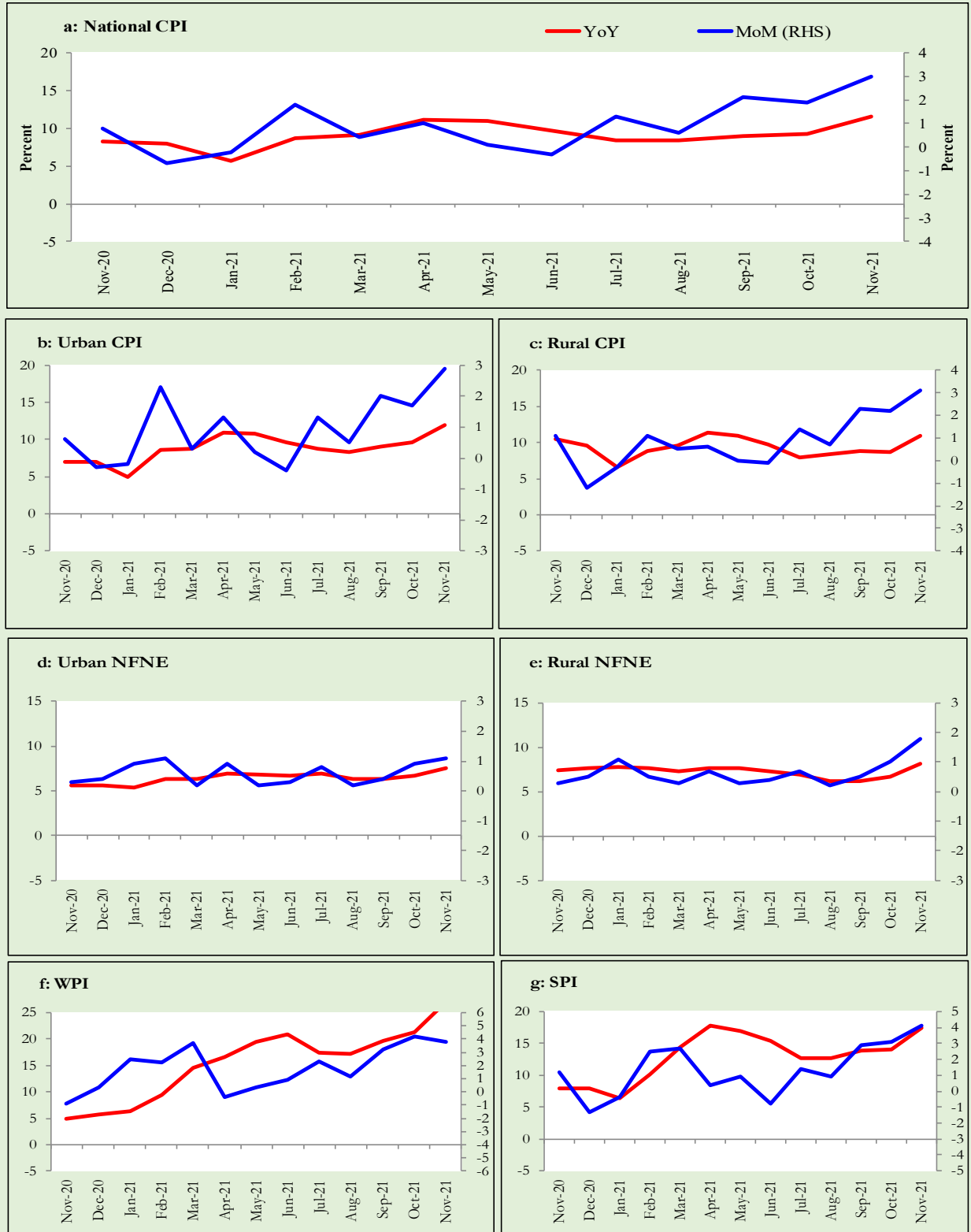
Heat-map of Urban CPI inflation (MoM)														
	Weights	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21
Urban	100.00	0.6	-0.3	-0.2	2.3	0.3	1.3	0.2	-0.4	1.3	0.5	2.0	1.7	2.9
Food	36.80	1.6	-2.1	-2.1	1.3	1.7	2.7	1.1	-1.9	1.5	0.5	3.6	1.5	3.9
<i>Non-perishable</i>	32.34	0.6	0.0	0.3	3.1	1.5	0.5	2.5	-2.3	0.8	0.3	4.2	1.0	2.4
<i>Perishable</i>	4.46	6.9	-14.3	-18.7	-9.1	3.7	23.0	-7.1	-3.9	7.3	2.0	2.6	5.2	15.1
Non Food	63.20	0.1	0.7	1.1	2.8	-0.6	0.5	-0.3	0.5	1.1	0.5	1.1	1.8	2.2
<i>Energy</i>	9.47	-1.3	2.7	2.0	12.2	-4.1	-1.5	-3.2	1.3	3.5	2.1	4.6	6.0	7.6
<i>NFNE (Core)</i>	53.73	0.3	0.4	0.9	1.1	0.2	0.9	0.2	0.3	0.8	0.2	0.4	0.9	1.1
<i>HRI</i>	19.26	0.0	0.0	2.0	0.0	0.0	1.6	0.0	0.0	1.4	0.0	0.0	1.4	0.0
<i>Core Excl HRI</i>	34.47	0.5	0.6	0.3	1.8	0.2	0.5	0.3	0.5	0.4	0.3	0.6	0.6	1.7

Source: Pakistan Bureau of Statistics and SBP staff estimates

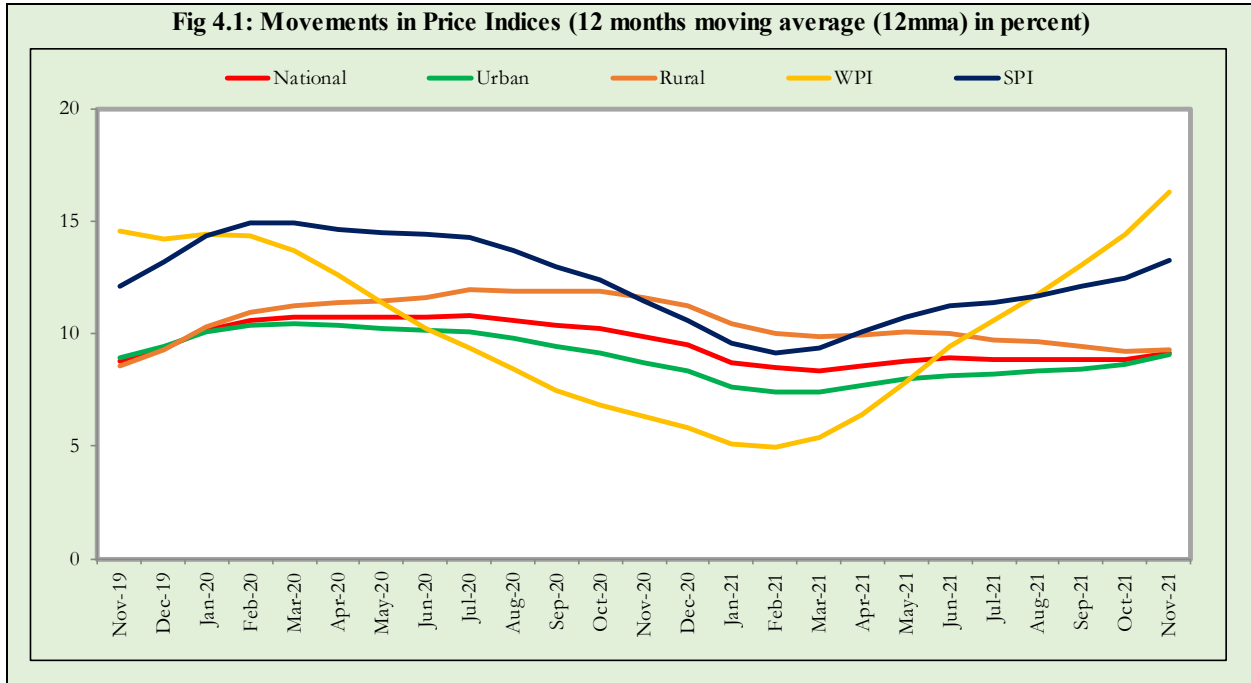
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3. Trends in Inflation

Fig 3.1: Summary of Inflation Trends (in percent)



4. Movement in Price Indices (Moving Averages)



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

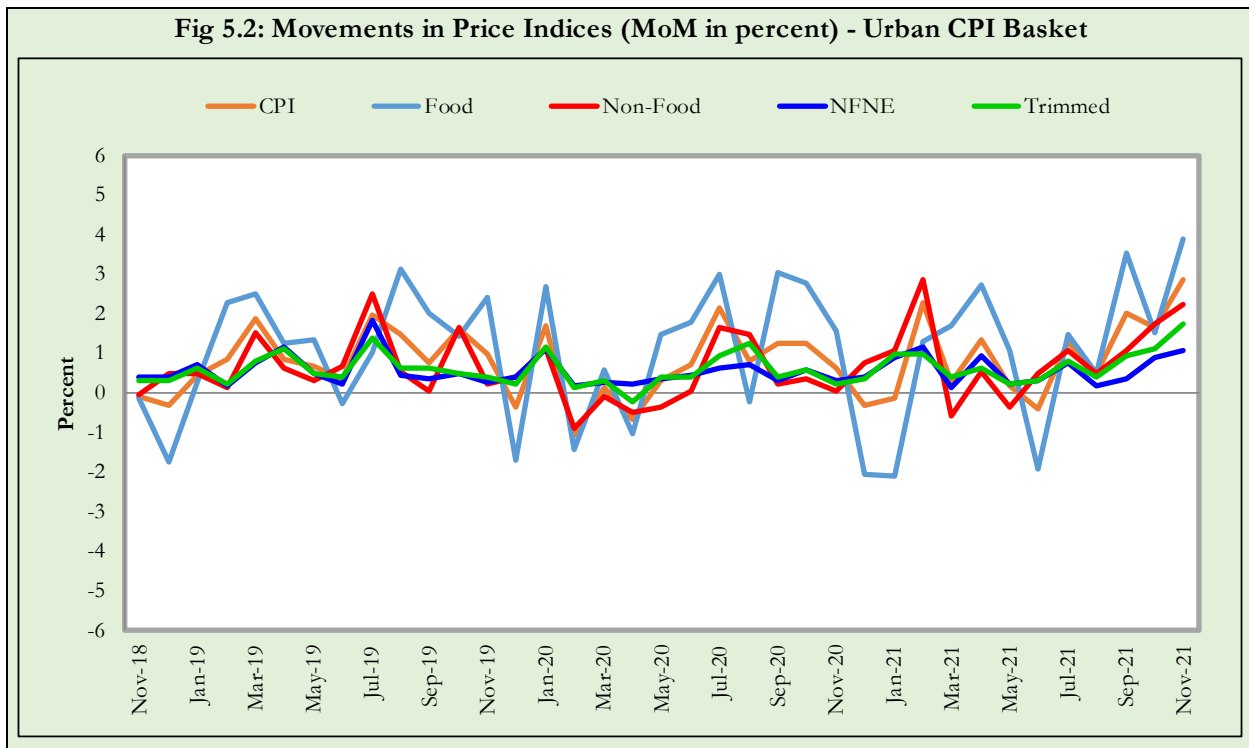
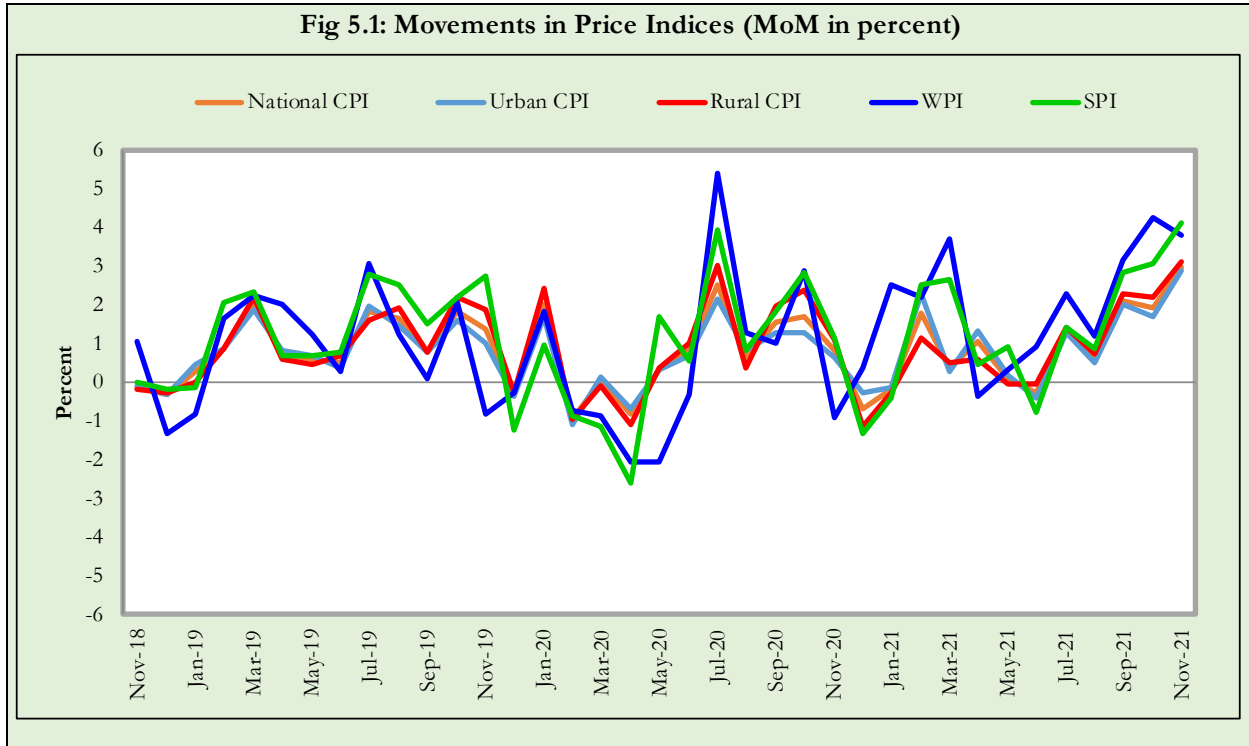
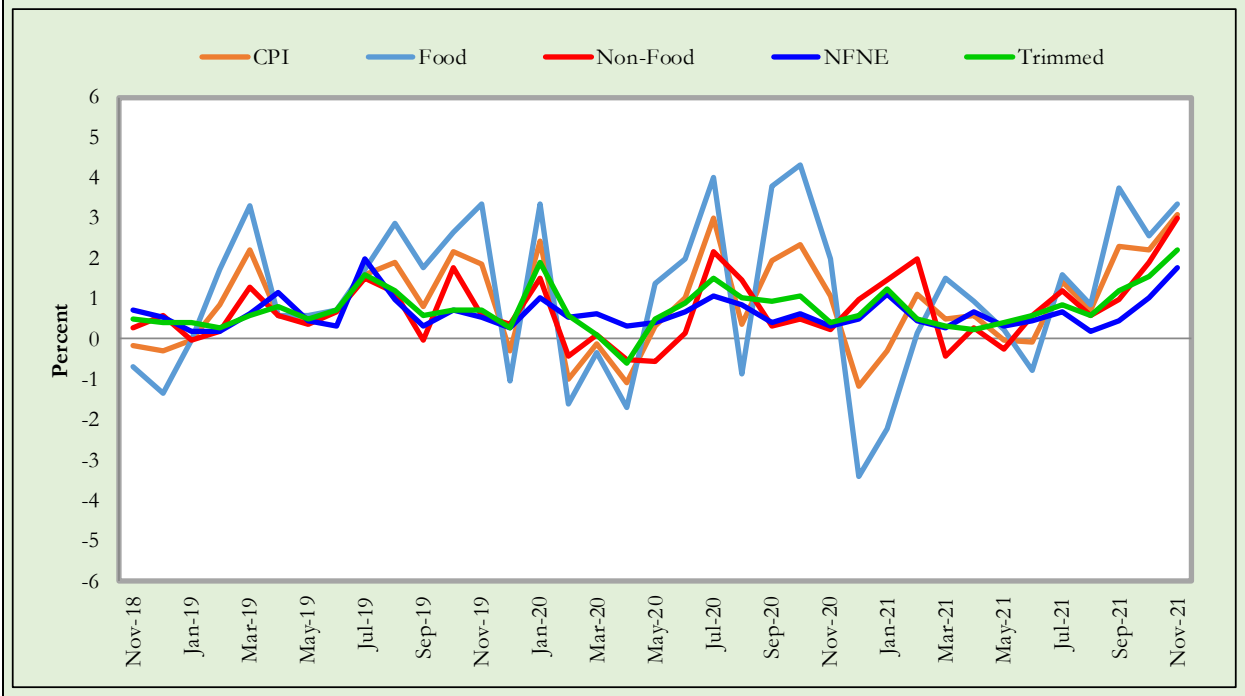
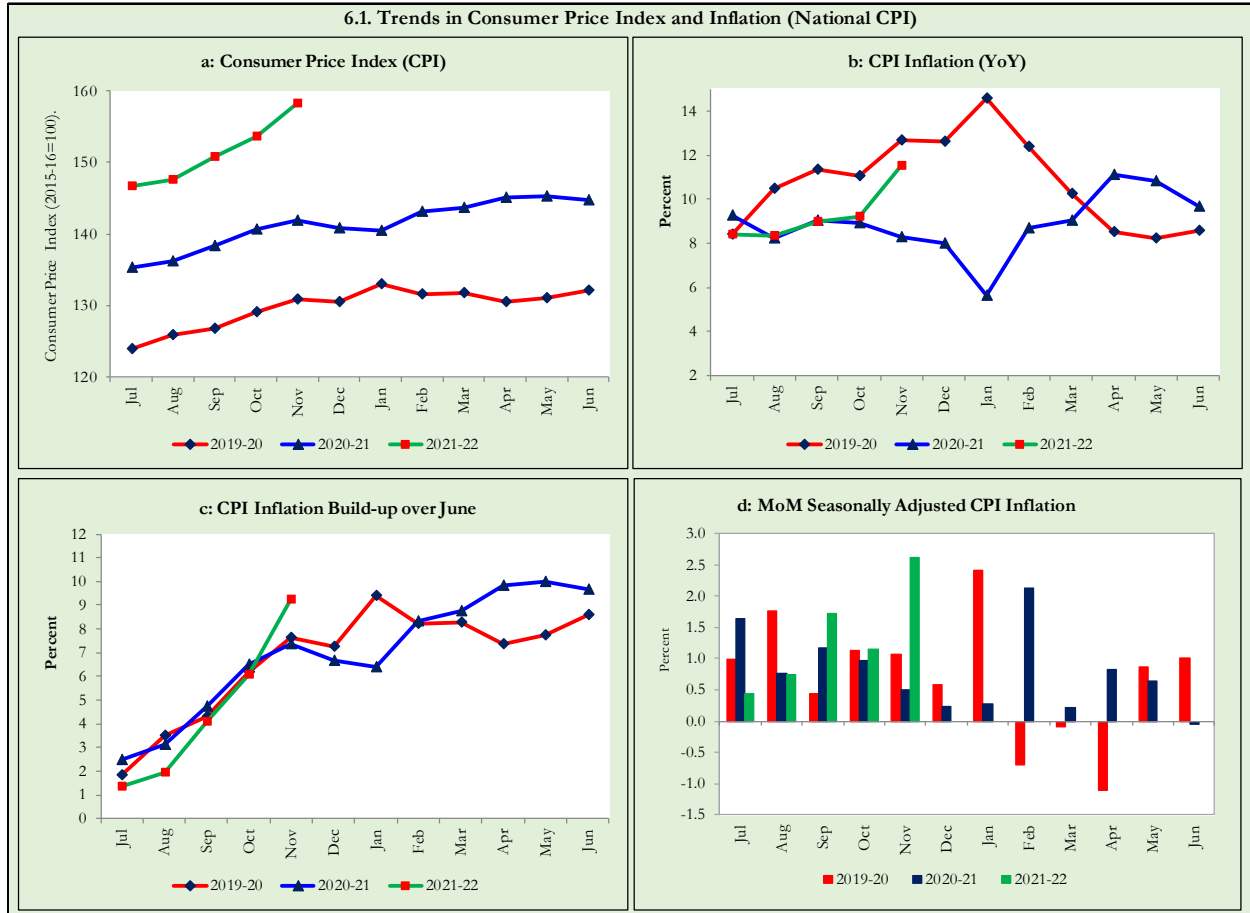


Fig 5.3: Movements in Price Indices (MoM in percent) - Rural CPI Basket

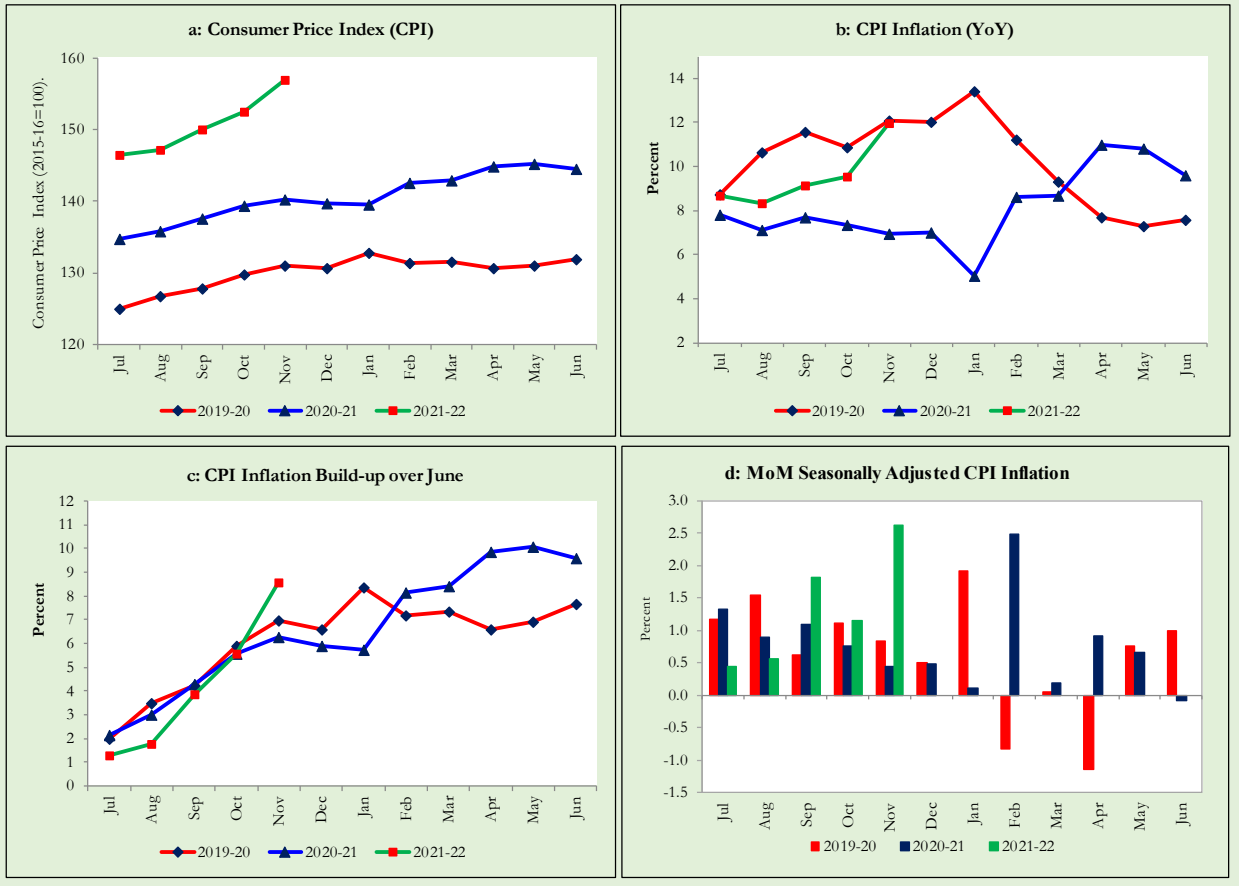


6. Trends in Consumer Price Indices and Inflation

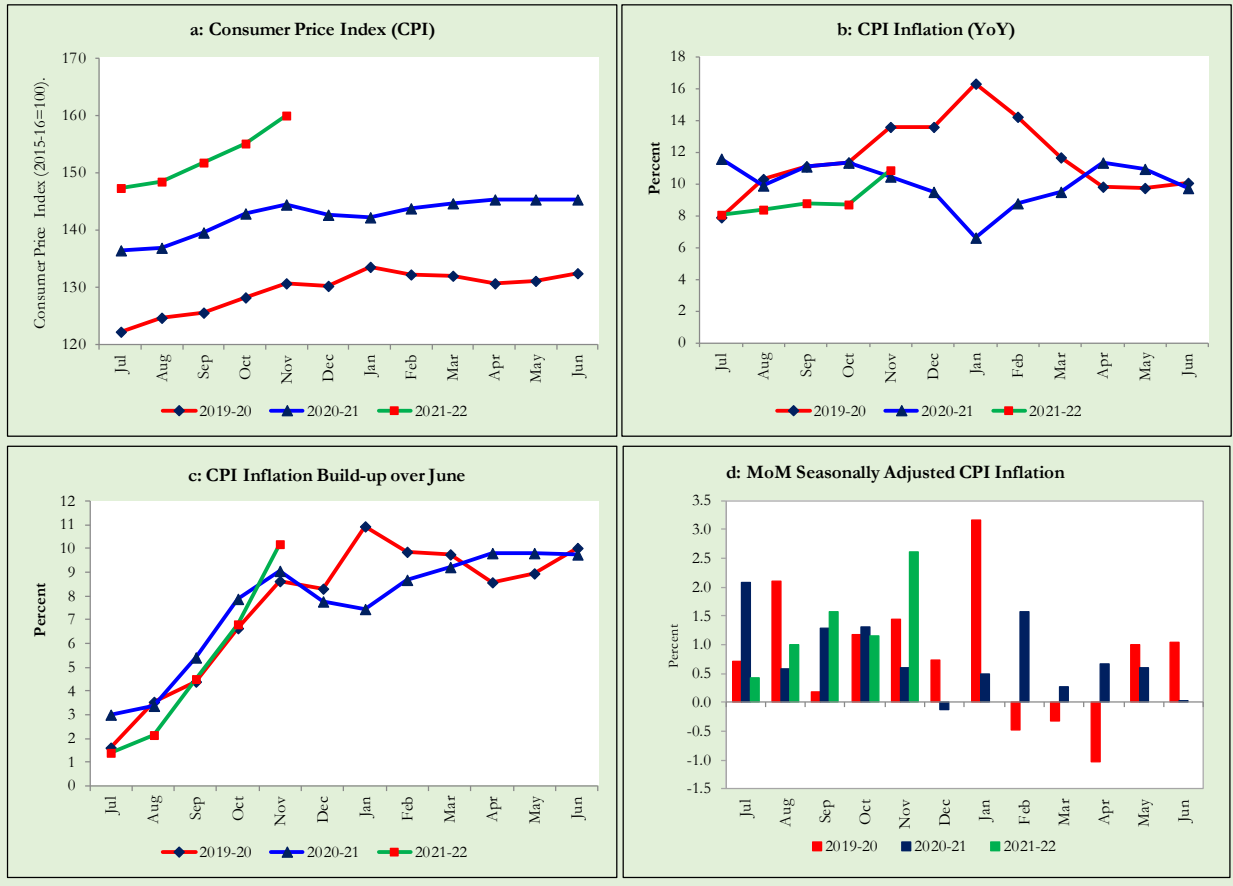
Monthly Consumer Price Indices, YoY growth rates and inflation build up over June along with seasonally adjusted (MoM) growth rates in CPI (National, Urban and Rural) is summarized in the following graphs (Figure 6.1 to 6.3).



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 increased to 38.6 percent during November 2021 from 37.9 percent in previous month. It was 68.7 percent during corresponding month of last year. The weighted contribution of non-food group decreased to 61.4 percent in November 2021 from 62.1 percent in previous month. Weighted Contribution of non-food was 31.3 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.

Table 7.1 Weighted Contribution (in percent) to Urban 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
Nov-20	100.0	68.7	4.3	64.3	31.3	-11.0	42.4	29.8	12.6
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

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 39.2 percent during November 2021 from 40.8 percent in previous month. It was 72.2 percent during corresponding month of last year. The weighted contribution of non-food group increased to 60.8 percent in November 2021 from 59.2 percent in previous month. Weighted contribution of non-food group was 27.8 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
Nov-20	100.0	72.2	5.7	66.5	27.8	-1.8	29.5	25.4	4.1
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

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.

	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21
General	50.8	41.9	53.4	59.8	56.2	43.3	42.1	47.2	52.2	51.7	57.6	60.1	70.2
Food & Non-Alcoholic Beverages	28.9	-1.1	44.4	47.8	54.4	24.4	28.9	30.0	38.9	40.0	55.6	41.1	42.2
Alcoholic Beverages & Tobacco	66.7	-33.3	33.3	66.7	33.3	33.3	66.7	33.3	0.0	0.0	33.3	33.3	33.3
Clothing & Footwear	75.0	72.5	65.0	85.0	70.0	67.5	55.0	47.5	47.5	45.0	50.0	55.0	80.0
Housing, Water, Elect, Gas & other Fuels	6.9	51.7	6.9	31.0	17.2	20.7	-6.9	27.6	58.6	41.4	58.6	72.4	72.4
Furnishing & Household Equip. Maintenance etc.	85.7	81.0	92.9	90.5	92.9	73.8	81.0	71.4	83.3	78.6	83.3	88.1	90.5
Health	67.7	54.8	71.0	90.3	87.1	77.4	61.3	64.5	54.8	74.2	54.8	51.6	64.5
Transport	31.3	40.6	43.8	50.0	28.1	18.8	25.0	31.3	37.5	46.9	40.6	50.0	93.8
Communication	40.0	20.0	40.0	20.0	20.0	40.0	0.0	20.0	60.0	20.0	20.0	20.0	0.0
Recreation & Culture	64.0	48.0	32.0	36.0	28.0	12.0	24.0	64.0	68.0	56.0	48.0	72.0	68.0
Education	12.5	0.0	18.8	6.3	0.0	31.3	0.0	25.0	25.0	25.0	25.0	56.3	81.3
Restaurant & Hotels	85.7	78.6	71.4	71.4	85.7	57.1	85.7	71.4	71.4	57.1	64.3	85.7	85.7
Miscellaneous	75.9	65.5	79.3	75.9	75.9	65.5	79.3	75.9	58.6	69.0	89.7	82.8	96.6
NFNE	62.6	55.3	59.1	63.8	63.0	57.0	51.1	54.9	57.4	56.2	59.1	66.0	80.9

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

	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21
General	37.7	34.8	39.3	45.5	46.7	35.2	32.0	43.9	44.3	41.0	54.1	66.8	61.9
Food & Non-Alcoholic Beverages	10.1	1.3	29.1	24.1	54.4	15.2	13.9	20.3	29.1	27.8	41.8	49.4	29.1
Alcoholic Beverages & Tobacco	20.0	20.0	40.0	40.0	-20.0	40.0	60.0	60.0	-20.0	0.0	40.0	80.0	40.0
Clothing & Footwear	85.2	77.8	59.3	59.3	81.5	55.6	74.1	44.4	55.6	25.9	74.1	81.5	96.3
Housing, Water, Elect, Gas & other Fuels	17.4	39.1	30.4	56.5	-17.4	17.4	-13.0	39.1	73.9	60.9	65.2	91.3	87.0
Furnishing & Household Equip. Maintenance etc.	42.3	69.2	46.2	88.5	88.5	61.5	61.5	76.9	80.8	61.5	57.7	84.6	88.5
Health	64.3	42.9	57.1	78.6	57.1	64.3	42.9	78.6	14.3	64.3	42.9	57.1	71.4
Transport	18.8	37.5	31.3	50.0	31.3	18.8	37.5	68.8	62.5	43.8	62.5	68.8	81.3
Communication	40.0	0.0	0.0	0.0	20.0	20.0	0.0	20.0	40.0	20.0	0.0	20.0	0.0
Recreation & Culture	46.2	61.5	23.1	23.1	23.1	30.8	23.1	38.5	30.8	53.8	53.8	61.5	53.8
Education	0.0	0.0	20.0	20.0	0.0	80.0	0.0	60.0	80.0	60.0	0.0	20.0	0.0
Restaurant & Hotels	78.6	64.3	42.9	42.9	21.4	42.9	57.1	28.6	28.6	28.6	64.3	78.6	85.7
Miscellaneous	82.4	35.3	76.5	52.9	64.7	58.8	47.1	70.6	41.2	58.8	88.2	88.2	88.2
NFNE	55.9	47.1	47.8	54.4	53.7	55.9	46.3	59.6	53.7	47.8	57.4	71.3	75.0

9. Domestic Commodity Prices

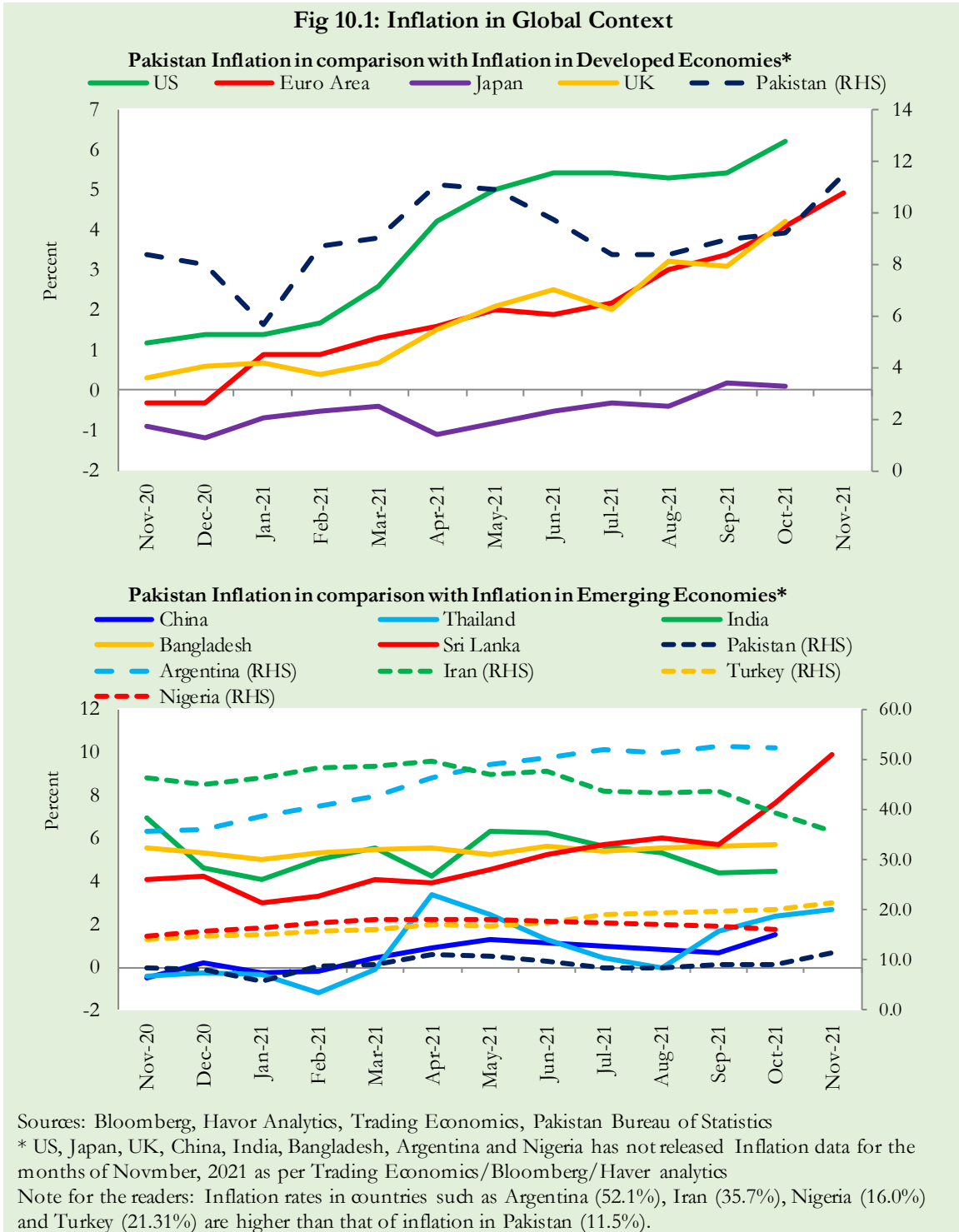
Inflation in domestic food commodities (YoY and MoM in percent) for selected essential food items covering both urban and rural CPI baskets is given in table 9.1.

S. No	Item	Unit	Urban CPI		Rural CPI	
			YoY	MoM	YoY	MoM
1	Wheat	10 Kg	10.3	1.0	4.1	2.3
2	Wheat Flour Bag	20 Kg	23.0	0.0	18.7	-0.1
3	Rice Basmati Broken (Superior/Average Quality) *	1 Kg	2.6	3.1	9.6	1.0
4	Beef with Bone (Average Quality)	1 Kg	20.1	2.4	18.9	2.5
5	Mutton (Average Quality)	1 Kg	20.3	2.9	17.1	0.8
6	Chicken Farm Broiler (Live)	1 Kg	6.2	-4.3	9.2	-4.4
7	Milk Fresh (Un-Boiled)	1 Liter	12.5	2.5	9.6	1.1
8	Eggs Farm	Dozen	9.5	10.2	5.8	6.0
9	Vegetable Ghee Dalda/Habib Or Other Superior Quality 1 Kg Pouch	Each	59.1	10.7	55.2	7.9
10	Pulse Masoor (Washed)	1 Kg	22.4	3.1	17.9	1.5
11	Pulse Moong (Washed)	1 Kg	-27.0	-0.7	-26.4	-1.3
12	Pulse Mash (Washed)	1 Kg	2.9	0.6	3.9	-1.6
13	Pulse Gram	1 Kg	4.8	-0.1	6.9	-0.4
14	Potatoes	1 Kg	-18.4	11.1	-23.7	8.3
15	Onions	1 Kg	-37.7	-8.0	-40.6	-11.1
16	Tomatoes	1 Kg	3.1	131.6	4.1	150.7
17	Sugar Refined	1 Kg	2.2	1.4	0.9	0.6
18	Garlic (Lehsun)	1 Kg	2.2	1.9	29.8	2.9
19	Ginger (Adrak)	500 Gm	-39.6	-3.0	-44.5	-8.0
20	Tea Lipton Yellow Label 190 Gm Packet	Each	8.4	0.4	8.5	3.4

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

10. Inflation in Global Context

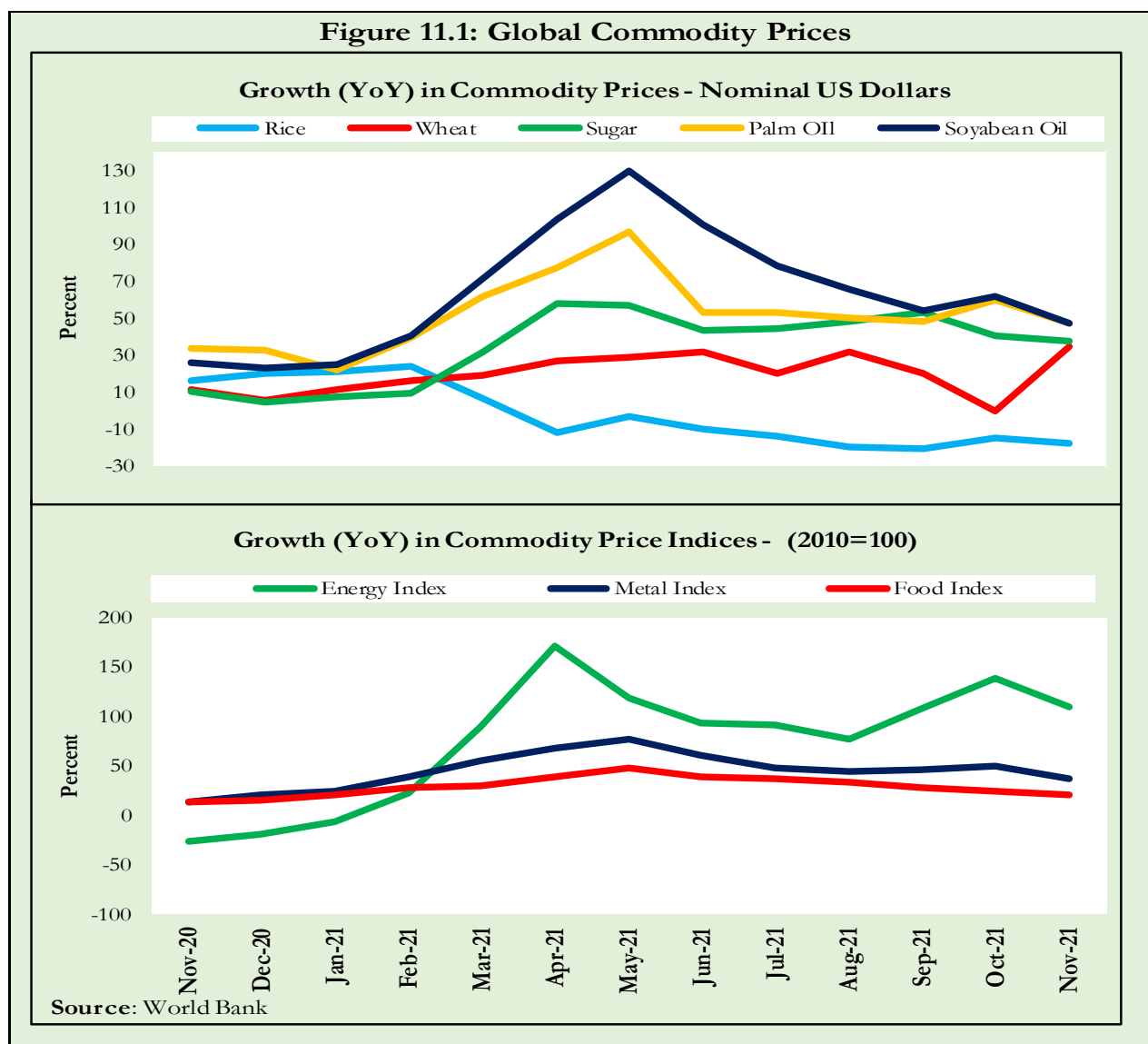
In global context, Pakistan’s inflation in comparison with inflation in selected developed and emerging economies is given in figure 10.1.



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	Nov-20		Oct-21		Nov-21	
	YoY	MoM	YoY	MoM	YoY	MoM
Food	13.8	5.6	24.9	1.4	20.0	1.4
Metals	13.8	6.0	50.7	4.7	36.9	-3.7
Energy	-26.8	6.2	137.8	15.6	109.7	-6.4
Agricultural	10.9	4.1	20.8	1.9	17.5	1.3
Cotton	3.8	3.9	56.9	13.2	62.8	7.8



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 November 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

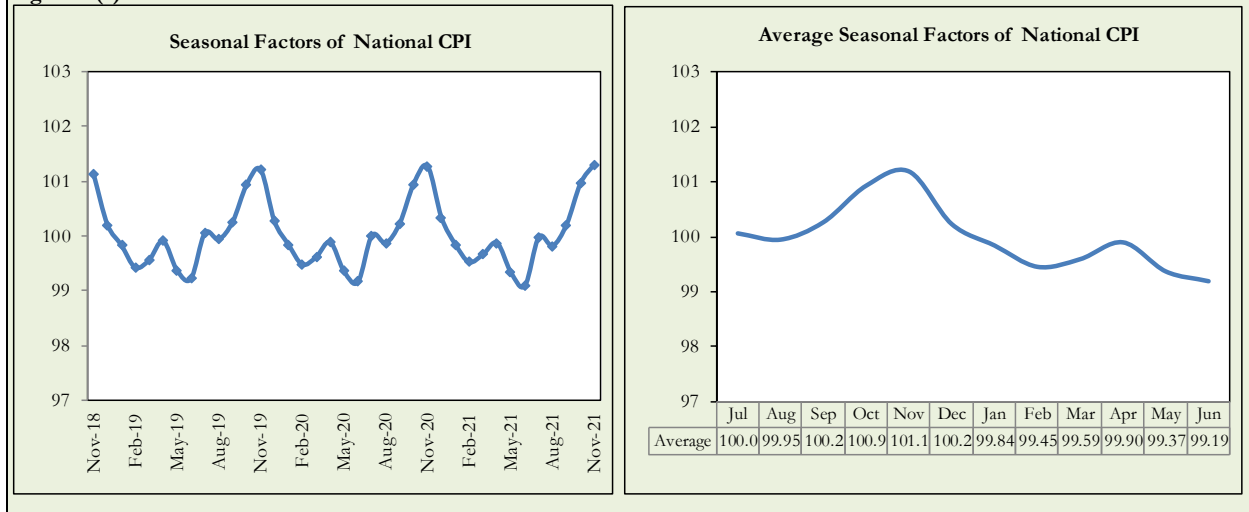


Fig. 12.1 (b): Seasonal Factor of Urban CPI

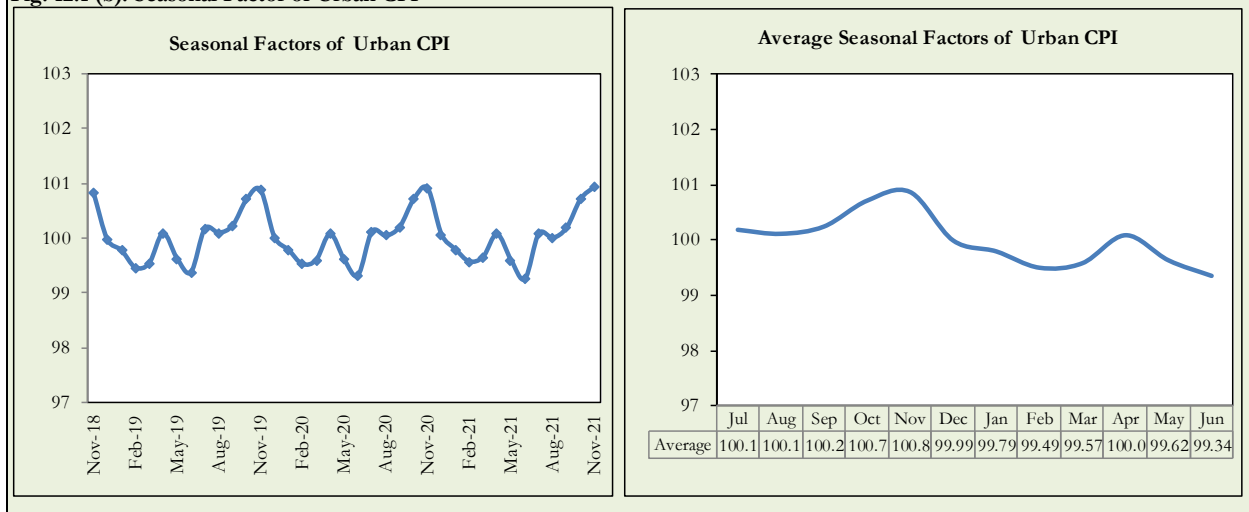
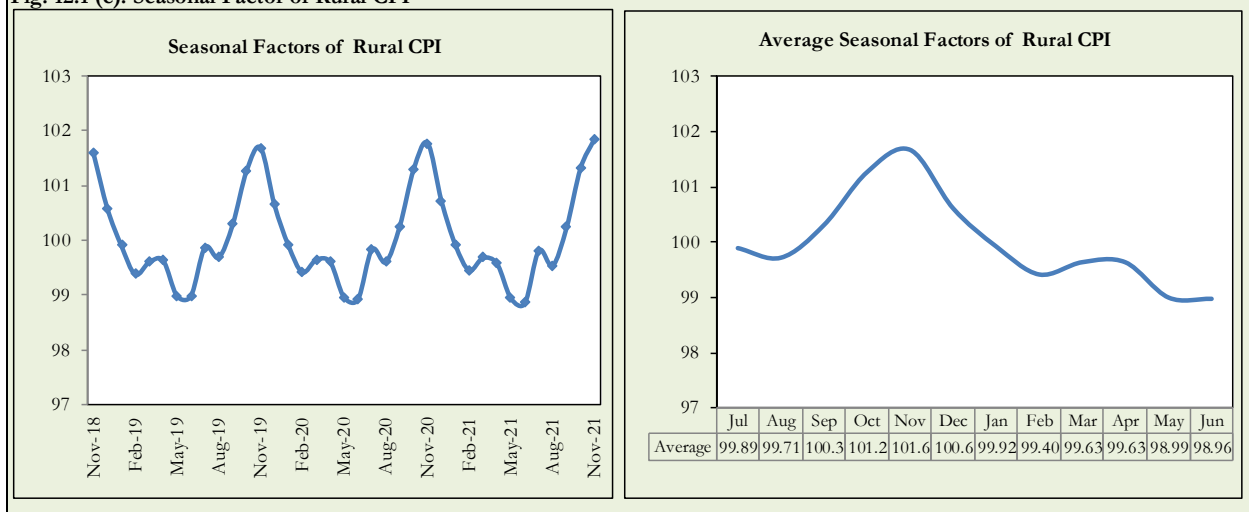


Fig. 12.1 (c): Seasonal Factor of Rural CPI



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

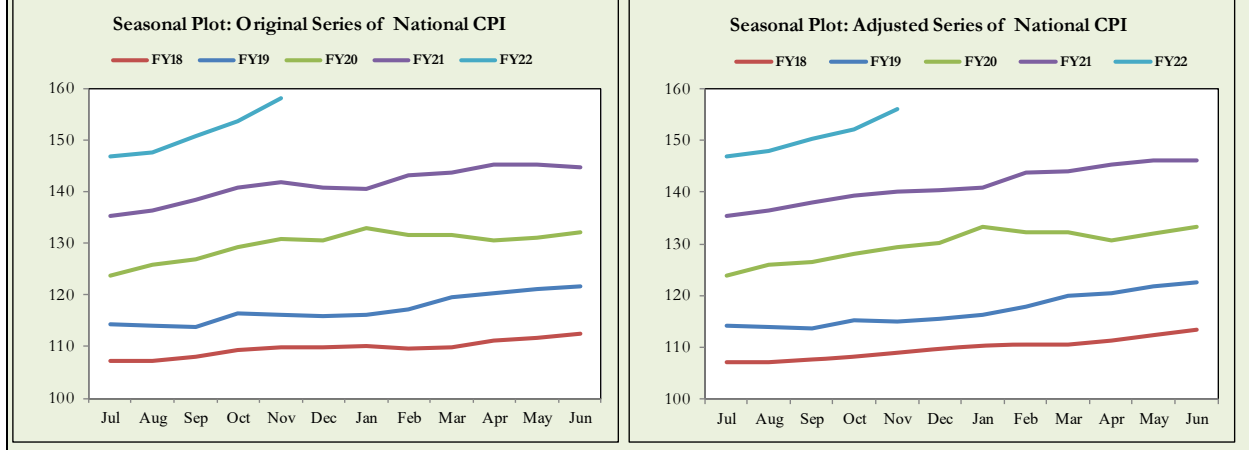


Fig. 12.2 (b): Seasonal Plot of Urban CPI

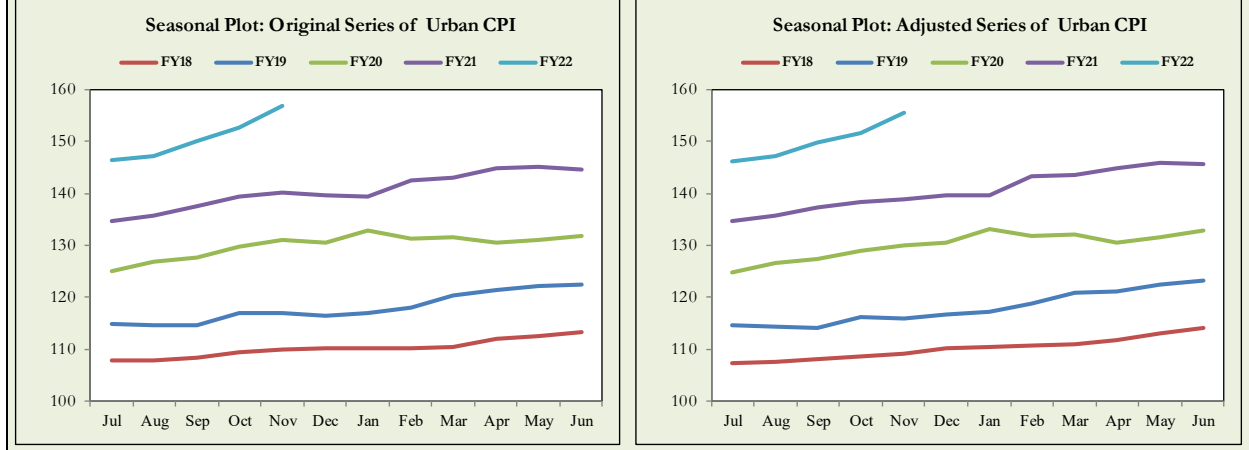
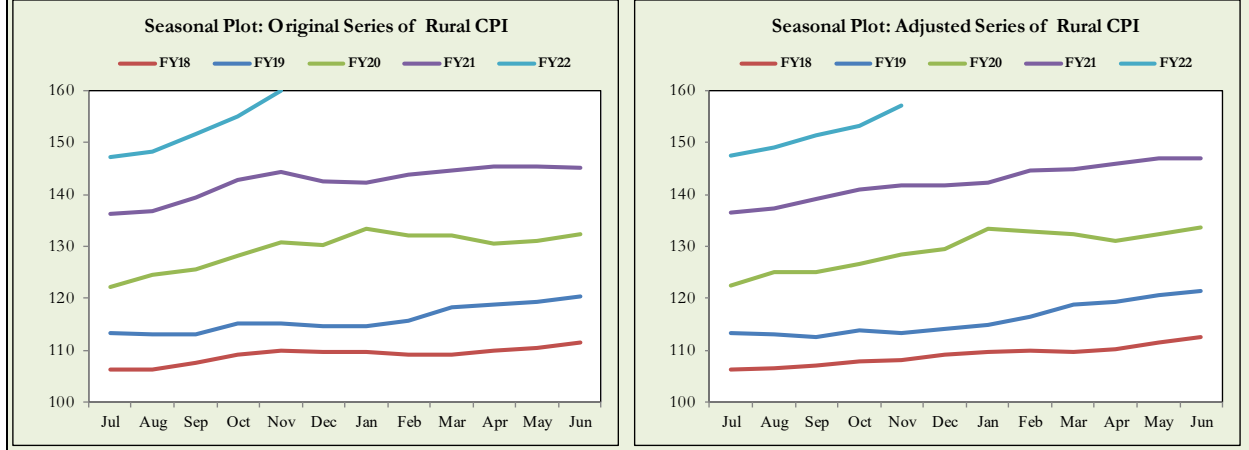


Fig. 12.2 (c): Seasonal Plot of Rural CPI



Seasonally adjusted Index of National CPI for November 2021 stood at 156.14 against 158.18 in original series showing a decrease of 2.04 on account of seasonal adjustment in November 2021.

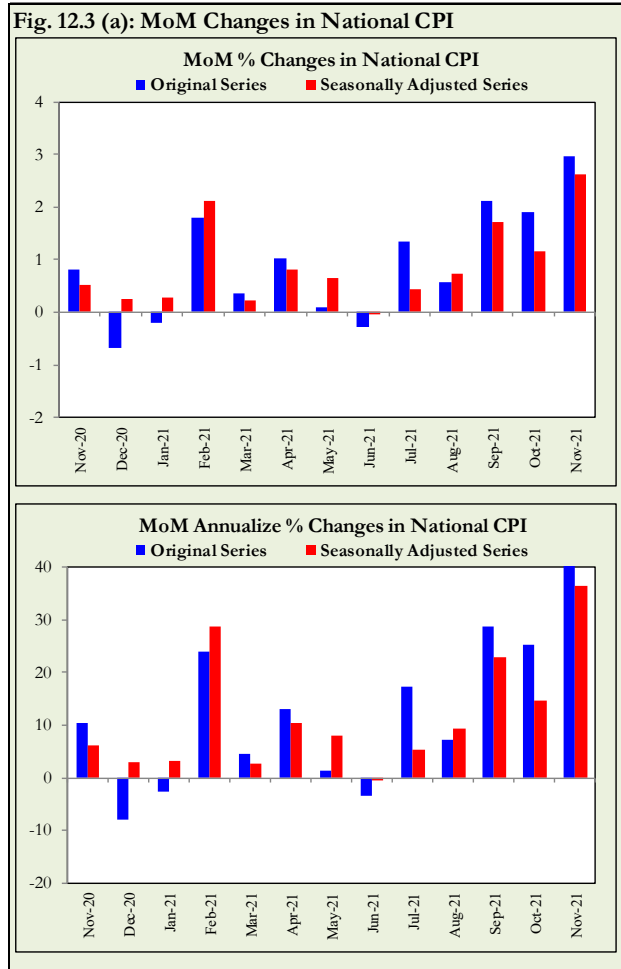
Seasonally adjusted Index of Urban CPI for November 2021 stood at 155.50 against 156.96 in original series showing a decrease of 1.46 on account of seasonal adjustment in November 2021.

Seasonally adjusted Index of Rural CPI for November 2021 stood at 157.12 against 160.03 in original series showing a decreased of 2.91 on account of seasonal adjustment in November 2021.

Month-on-month change of seasonally adjusted National CPI series stood at 2.6% reflecting an increase during November 2021 over previous month and an increase of 3.0% in original series.

Month-on-month change of seasonally adjusted Urban CPI series stood at 2.6% reflecting an increase during November 2021 over previous month and an increase of 2.9% in original series.

Month-on-month change of seasonally adjusted Rural CPI series stood at 2.6% reflecting an increase during November 2021 over previous month and an increase of 3.1% in original series.



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

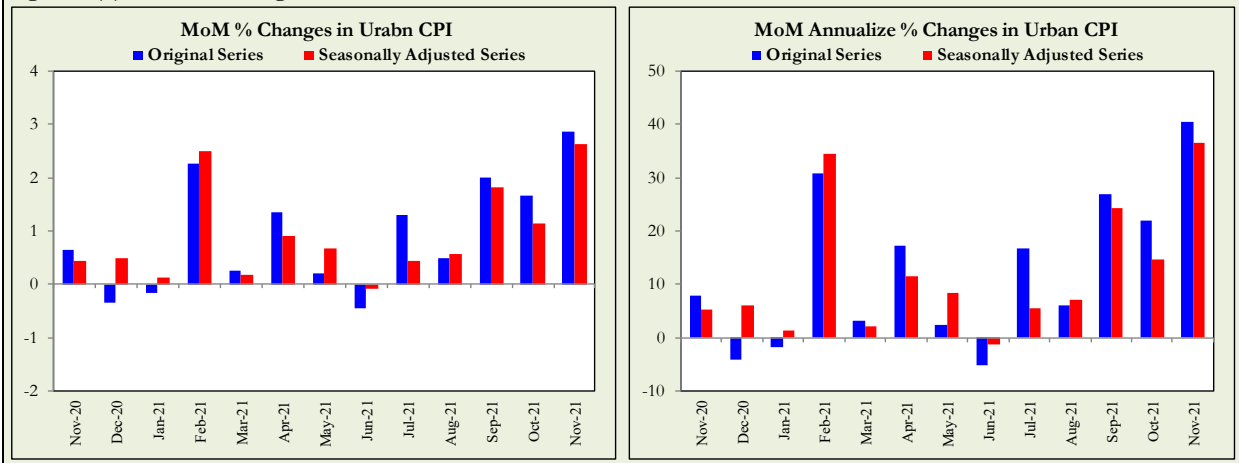
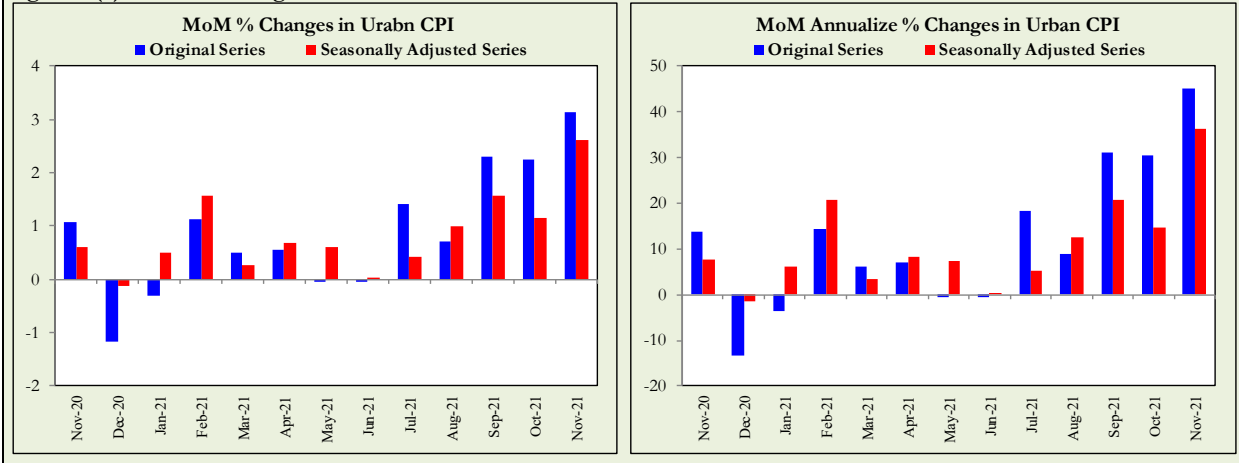


Fig. 12.3 (c): MoM % Changes in Rural CPI



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

Groups	Weights	MoM change			YoY change		
		Nov-20	Oct-21	Nov-21	Nov-20	Oct-21	Nov-21
Food & Non-Alcoholic Beverages	34.6	1.9	2.1	3.9	15.1	8.3	10.5
Alcoholic Beverages & Tobacco	1.0	0.3	0.4	0.2	5.9	1.9	1.8
Clothing & Footwear	8.6	1.4	0.5	1.9	9.5	9.3	9.8
Housing, Water, Elec, Gas & other Fuels	23.6	-0.1	2.4	2.4	2.6	12.0	14.8
Furnishing & Household Equip. Maintenance etc	4.1	0.5	0.8	1.6	7.7	9.2	10.4
Health	2.8	0.6	0.7	1.2	7.6	8.0	8.5
Transport	5.9	-2.3	5.3	6.3	-4.1	14.4	24.4
Communication	2.2	0.3	0.1	0.0	0.6	2.8	2.5
Recreation & Culture	1.6	0.4	1.2	0.4	4.2	7.5	7.5
Education	3.8	0.0	0.1	0.2	1.3	2.2	2.4
Restaurants & Hotels	6.9	1.0	1.3	3.5	9.3	8.3	11.0
Miscellaneous	4.9	0.7	1.3	1.8	11.9	8.7	10.0
Overall National CPI	100.0	0.8	1.9	3.0	8.3	9.2	11.5

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

Groups	Weights	MoM change			YoY change		
		Nov-20	Oct-21	Nov-21	Nov-20	Oct-21	Nov-21
I. Food Group	36.8	1.6	1.5	3.9	13.0	9.4	11.9
Food & Non-Alcoholic Beverages	30.4	1.7	1.6	4.3	13.8	9.4	12.2
Alcoholic Beverages & Tobacco	0.9	0.5	0.2	0.3	6.7	2.1	1.9
Restaurant & Hotels (Food)	5.5	0.9	1.2	2.3	9.7	10.7	12.2
II. Non-Food Group	63.2	0.1	1.8	2.2	3.4	9.7	12.0
Clothing & Footwear	8.0	1.9	0.4	1.3	9.1	10.2	9.5
Housing, Water, Elec, Gas & other Fuels	27.0	-0.3	2.3	2.0	2.2	11.1	13.6
Furnishing & Household Equip. Maintenance etc	4.1	0.6	0.7	1.4	6.4	9.1	10.0
Health	2.3	0.2	0.6	1.1	7.1	8.4	9.3
Transport	6.1	-2.4	5.3	6.6	-4.5	15.0	25.7
Communication	2.4	0.4	0.1	0.0	0.7	3.8	3.4
Recreation & Culture	1.7	0.4	1.5	0.3	3.2	7.6	7.5
Education	4.9	0.0	0.2	0.2	1.1	1.9	2.2
Restaurants & Hotels (Non-food)	1.9	1.1	0.1	7.6	8.0	2.3	9.0
Miscellaneous	4.8	0.9	1.0	1.7	10.4	9.3	10.1
Overall Urban CPI	100.0	0.6	1.7	2.9	7.0	9.6	12.0

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

Groups	Weights	MoM Change			YoY Change		
		Nov-20	Oct-21	Nov-21	Nov-20	Oct-21	Nov-21
I. Food Group	45.9	2.0	2.6	3.3	16.1	7.2	8.6
Food and Non-Alcoholic Beverages	40.9	2.1	2.7	3.6	16.7	7.1	8.7
Alcoholic Beverages, Tobacco	1.3	0.0	0.5	0.1	5.0	1.6	1.7
Restaurants and Hotels (Food Component)	3.8	1.2	2.0	1.6	14.1	10.2	10.6
II. Non-Food Group	54.1	0.2	2.0	2.9	4.8	10.4	13.4
Clothing and Footwear	9.5	0.9	0.6	2.6	9.9	8.2	10.1
Housing, Water, Elec., Gas and Other Fuels	18.5	0.3	2.7	3.3	3.6	14.0	17.5
Furnishing and Household Equip. Maintenance	4.1	0.4	1.0	2.0	9.6	9.3	11.0
Health	3.5	1.0	0.7	1.3	8.2	7.5	7.8
Transport	5.6	-2.0	5.2	5.8	-3.5	13.4	22.3
Communication	2.0	0.2	0.2	0.0	0.4	1.0	0.8
Recreation and Culture	1.4	0.3	0.7	0.5	6.0	7.3	7.5
Education	2.1	0.0	0.1	0.0	2.1	3.2	3.2
Restaurants and Hotels (Non-Food Component)	2.4	0.6	1.6	7.4	1.4	2.9	9.8
Miscellaneous	5.0	0.4	1.9	2.0	14.1	7.9	9.7
Rural CPI	100.0	1.1	2.2	3.1	10.5	8.7	10.9

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

Items/Contributors	Weights	YoY Change		Weighted Contribution (%)	
		Nov-20	Nov-21		
<u>A. Ranked by Weighted Contribution</u>					
1	Electricity Charges	4.56	-9.89	47.87	14.71
2	Motor Fuel	2.91	-9.55	40.81	10.16
3	House Rent	19.26	4.67	6.62	10.11
4	Milk Fresh	7.11	11.37	11.71	6.63
5	Readymade Food	5.52	9.69	12.23	5.51
6	Vegetable Ghee	1.03	14.83	58.29	5.34
7	Cooking Oil	1.10	10.10	53.59	5.04
8	Wheat Flour	3.01	13.28	19.04	4.59
9	Meat	2.04	10.53	20.20	3.81
10	Liquefied Hydrocarbons	0.51	-2.82	80.34	3.47
Total		47.05			69.37
<u>B. Ranked by Percentage Change</u>					
1	Liquefied Hydrocarbons	0.51	-2.82	80.34	3.47
2	Vegetable Ghee	1.03	14.83	58.29	5.34
3	Mustard Oil	0.01	15.12	56.96	0.05
4	Cooking Oil	1.10	10.10	53.59	5.04
5	Electricity Charges	4.56	-9.89	47.87	14.71
6	Motor Fuel	2.91	-9.55	40.81	10.16
7	Pulse Masoor	0.16	15.76	22.38	0.22
8	Fresh Fruits	1.44	-3.59	21.67	1.94
9	Cleaning And Laundring	0.07	11.30	21.17	0.12
10	Meat	2.04	10.53	20.20	3.81
Total		13.83			44.86
<u>C. Ranked by Weights</u>					
1	House Rent	19.26	4.67	6.62	10.11
2	Milk Fresh	7.11	11.37	11.71	6.63
3	Readymade Food	5.52	9.69	12.23	5.51
4	Education	4.88	1.06	2.18	0.92
5	Electricity Charges	4.56	-9.89	47.87	14.71
6	Wheat Flour	3.01	13.28	19.04	4.59
7	Appliances/Articles/Products For Personal	2.98	7.28	11.98	2.84
8	Motor Fuel	2.91	-9.55	40.81	10.16
9	Cotton Cloth	2.22	12.48	8.64	1.63
10	Meat	2.04	10.53	20.20	3.81
Total		54.49			60.91

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 12.0 percent in November 2021.

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

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Oct-21	Nov-21		
A. Ranked by Weighted Contribution					
1	Tomatoes	0.35	0.39	131.64	15.48
2	Electricity Charges	4.56	5.48	8.32	13.41
3	Motor Fuel	2.91	8.65	8.40	10.44
4	Fresh Vegetables	1.53	15.26	10.42	6.60
5	Milk Fresh	7.11	0.41	2.33	5.55
6	Vegetable Ghee	1.03	2.72	10.87	5.47
7	Cooking Oil	1.10	1.77	9.71	4.91
8	Marriage Hall Charges	1.75	0.11	8.09	4.48
9	Readymade Food	5.52	1.24	2.25	4.28
10	Liquefied Hydrocarbons	0.51	13.20	16.32	4.20
Total		26.37			74.82
B. Ranked by Percentage Change					
1	Tomatoes	0.35	0.39	131.64	15.48
2	Liquefied Hydrocarbons	0.51	13.20	16.32	4.20
3	Cleaning And Laundry	0.07	0.08	16.16	0.37
4	Mustard Oil	0.01	4.68	11.60	0.06
5	Vegetable Ghee	1.03	2.72	10.87	5.47
6	Fresh Vegetables	1.53	15.26	10.42	6.60
7	Eggs	0.51	-5.94	10.19	2.29
8	Cooking Oil	1.10	1.77	9.71	4.91
9	Potatoes	0.45	12.17	8.85	2.05
10	Motor Fuel	2.91	8.65	8.40	10.44
Total		8.47			51.87
C. Ranked by Weights					
1	House Rent	19.26	1.42	0.00	0.00
2	Milk Fresh	7.11	0.41	2.33	5.55
3	Readymade Food	5.52	1.24	2.25	4.28
4	Education	4.88	0.15	0.23	0.39
5	Electricity Charges	4.56	5.48	8.32	13.41
6	Wheat Flour	3.01	-1.44	0.29	0.32
7	Appliances/Articles/Products For	2.98	0.97	0.60	0.61
8	Motor Fuel	2.91	8.65	8.40	10.44
9	Cotton Cloth	2.22	0.04	2.64	2.02
10	Meat	2.04	1.72	2.63	2.23
Total		54.49			39.25

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 2.9 percent in November 2021.

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

Items/ Contributors	Weights	YoY Change		Weighted Contribution (%)	
		Nov-20	Nov-21		
A. Ranked by Weighted Contribution					
1	Electricity Charges	4.56	-9.89	47.87	14.71
2	Motor Fuel	2.91	-9.55	40.81	10.16
3	House Rent	19.26	4.67	6.62	10.11
4	Milk Fresh	7.11	11.37	11.71	6.63
5	Readymade Food	5.52	9.69	12.23	5.51
6	Vegetable Ghee	1.03	14.83	58.29	5.34
7	Cooking Oil	1.10	10.10	53.59	5.04
8	Wheat Flour	3.01	13.28	19.04	4.59
9	Meat	2.04	10.53	20.20	3.81
10	Liquefied Hydrocarbons	0.51	-2.82	80.34	3.47
11	Appliances/Articles/Products For	2.98	7.28	11.98	2.84
12	Fresh Fruits	1.44	-3.59	21.67	1.94
13	Footwear	1.48	6.12	16.20	1.86
14	Fresh Vegetables	1.53	8.53	10.92	1.79
15	Cotton Cloth	2.22	12.48	8.64	1.63
Total		56.70			79.43
Bottom 15 Contributors					
1	Onions	0.59	-6.60	-37.68	-2.41
2	Potatoes	0.45	56.11	-17.66	-1.41
3	Pulse Moong	0.17	26.12	-27.03	-0.40
4	Cigarettes	0.72	4.92	-0.12	-0.01
5	Newspapers	0.07	0.00	0.00	0.00
6	Gas Charges	1.08	0.00	0.00	0.00
7	Therapeutic Appliances And	0.01	7.41	3.02	0.00
8	Major Tools & Equipments	0.01	8.53	8.36	0.01
9	Electrical Appliances For Personal	0.05	1.60	1.98	0.01
10	Dental Services	0.02	5.34	6.41	0.01
11	Carpets	0.03	4.61	4.91	0.01
12	Dessert Preparation	0.04	9.36	5.19	0.02
13	Postal Services	0.02	0.23	10.87	0.02
14	Pulse Mash	0.12	22.61	2.89	0.02
15	Besan	0.08	6.86	3.76	0.02
Total		3.46			-4.11

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

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Oct-21	Nov-21		
A. Ranked by Weighted Contribution					
1	Tomatoes	0.35	0.39	131.64	15.48
2	Electricity Charges	4.56	5.48	8.32	13.41
3	Motor Fuel	2.91	8.65	8.40	10.44
4	Fresh Vegetables	1.53	15.26	10.42	6.60
5	Milk Fresh	7.11	0.41	2.33	5.55
6	Vegetable Ghee	1.03	2.72	10.87	5.47
7	Cooking Oil	1.10	1.77	9.71	4.91
8	Marriage Hall Charges	1.75	0.11	8.09	4.48
9	Readymade Food	5.52	1.24	2.25	4.28
10	Liquefied Hydrocarbons	0.51	13.20	16.32	4.20
11	Eggs	0.51	-5.94	10.19	2.29
12	Meat	2.04	1.72	2.63	2.23
13	Transport Services	1.75	1.87	4.24	2.22
14	Potatoes	0.45	12.17	8.85	2.05
15	Cotton Cloth	2.22	0.04	2.64	2.02
Total		33.34			85.63
Bottom 15 Contributors					
1	Chicken	1.36	17.91	-4.34	-2.45
2	Onions	0.59	-12.70	-7.97	-1.33
3	Pulse Moong	0.17	-6.14	-0.69	-0.03
4	Pulse Gram	0.17	-2.30	-0.13	-0.01
5	Newspapers	0.07	0.00	0.00	0.00
6	Communication Services	1.88	0.00	0.00	0.00
7	Postal Services	0.02	0.00	0.00	0.00
8	Motor Vehicle Tax	0.05	0.00	0.00	0.00
9	Gas Charges	1.08	0.00	0.00	0.00
10	Water Supply	0.53	0.00	0.00	0.00
11	Cigarettes	0.72	0.00	0.00	0.00
12	Dessert Preparation	0.04	0.01	0.00	0.00
13	Communication Apparatus	0.45	0.37	0.00	0.00
14	House Rent	19.26	1.42	0.00	0.00
15	Major Tools & Equipments	0.01	0.45	0.38	0.00
Total		26.40			-3.82

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

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Oct-21	Nov-21		
A. Ranked by Weighted Contribution					
1	Tomatoes	0.35	0.39	131.64	15.48
2	Fresh vegetables	1.53	15.26	10.42	6.60
3	Milk fresh	7.11	0.41	2.33	5.55
4	Vegetable ghee	1.03	2.72	10.87	5.47
5	Cooking oil	1.10	1.77	9.71	4.91
6	Readymade food	5.52	1.24	2.25	4.28
7	Eggs	0.51	-5.94	10.19	2.29
8	Meat	2.04	1.72	2.63	2.23
9	Potatoes	0.45	12.17	8.85	2.05
10	Fresh fruits	1.44	1.10	4.37	1.76
11	Sweetmeat	0.35	4.92	5.64	0.75
12	Rice	1.18	0.88	1.73	0.69
13	Dry fruits	0.33	0.77	5.65	0.59
14	Sugar	1.11	-7.72	1.43	0.59
15	Bakery and confectionary	0.48	1.09	3.46	0.57
Total		24.53			53.80
Bottom 15 Contributors					
1	Chicken	1.36	17.91	-4.34	-2.45
2	Onions	0.59	-12.70	-7.97	-1.33
3	Pulse moong	0.17	-6.14	-0.69	-0.03
4	Pulse gram	0.17	-2.30	-0.13	-0.01
5	Cigarettes	0.72	0.00	0.00	0.00
6	Dessert preparation	0.04	0.01	0.00	0.00
7	Ice cream	0.10	0.15	0.09	0.00
8	Beans	0.04	1.50	0.36	0.01
9	Besan	0.08	-0.24	0.30	0.01
10	Condiments and Spices	1.33	-3.85	0.01	0.01
11	Butter	0.09	0.54	0.22	0.01
12	Pulse mash	0.12	-2.12	0.65	0.02
13	Milk powder	0.31	0.47	0.27	0.03
14	Gur	0.04	2.68	2.50	0.03
15	Gram whole	0.09	1.24	1.77	0.05
Total		5.26			-3.65

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

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Oct-21	Nov-21		
A. Ranked by Weighted Contribution					
1	Electricity charges	4.56	5.48	8.32	13.41
2	Motor fuel	2.91	8.65	8.40	10.44
3	Marriage Hall Charges	1.75	0.11	8.09	4.48
4	Liquefied Hydrocarbons	0.51	13.20	16.32	4.20
5	Transport services	1.75	1.87	4.24	2.22
6	Cotton cloth	2.22	0.04	2.64	2.02
7	Personal Effects n.e.c.	0.94	1.43	3.95	1.73
8	Motor vehicles	0.81	1.05	5.50	1.57
9	Washing soap/detergents/match	1.41	0.91	2.24	1.09
10	Mechanical services	0.43	0.63	4.86	0.67
11	Drugs and medicines	1.07	1.18	1.63	0.63
12	Appliances/Articles/Products for	2.98	0.97	0.60	0.61
13	Personal Grooming Services	0.80	0.14	1.98	0.51
14	Solid Fuel	0.42	0.21	3.61	0.42
15	Education	4.88	0.15	0.23	0.39
Total		27.44			44.41
Bottom 15 Contributors					
1	Newspapers	0.07	0.00	0.00	0.00
2	Communication Services	1.88	0.00	0.00	0.00
3	Postal services	0.02	0.00	0.00	0.00
4	Motor vehicle tax	0.05	0.00	0.00	0.00
5	Gas charges	1.08	0.00	0.00	0.00
6	Water supply	0.53	0.00	0.00	0.00
7	Communication apparatus	0.45	0.37	0.00	0.00
8	House rent	19.26	1.42	0.00	0.00
9	Major tools & equipments	0.01	0.45	0.38	0.00
10	Dental services	0.02	0.10	0.40	0.00
11	Therapeutic Appliances and	0.01	0.10	1.29	0.00
12	Hospitals services	0.57	0.10	0.04	0.01
13	Electrical Appliances for Personal	0.05	0.25	0.55	0.01
14	Plastic products	0.05	0.37	0.58	0.01
15	Accommodation Services	0.13	0.05	0.39	0.01
Total		24.17			0.04

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

Items/ Contributors	Weights	YoY Change		Weighted Contribution (%)	
		Nov-20	Nov-21		
A. Ranked by Weighted Contribution					
1	Vegetable Ghee	2.38	17.56	53.00	12.93
2	Electricity Charges	3.44	-9.89	47.87	11.90
3	Motor Fuels	2.49	-9.92	40.22	9.08
4	Milk Fresh	10.38	7.79	9.62	8.34
5	Liquefied Hydrocarbons	1.00	-3.38	61.45	5.15
6	Wheat Flour	3.43	19.59	15.48	4.89
7	House Rent	8.61	5.20	6.64	4.85
8	Solid Fuel	4.48	11.62	10.35	3.95
9	Readymade Food	3.80	14.05	10.57	3.82
10	Cooking Oil	0.60	15.24	54.88	3.28
Total		40.61			68.19
B. Ranked by Percentage Change					
1	Liquefied Hydrocarbons	1.00	-3.38	61.45	5.15
2	Cooking Oil	0.60	15.24	54.88	3.28
3	Mustard Oil	0.01	12.72	54.20	0.06
4	Vegetable Ghee	2.38	17.56	53.00	12.93
5	Electricity Charges	3.44	-9.89	47.87	11.90
6	Motor Fuels	2.49	-9.92	40.22	9.08
7	Gram Whole	0.11	-1.72	20.56	0.17
8	Meat	1.71	10.87	18.39	3.11
9	Pulse Masoor	0.21	25.75	17.88	0.27
10	Woolen Readymade Garments	0.54	9.87	15.98	0.74
Total		12.49			46.69
C. Ranked by Weights					
1	Milk Fresh	10.38	7.79	9.62	8.34
2	House Rent	8.61	5.20	6.64	4.85
3	Solid Fuel	4.48	11.62	10.35	3.95
4	Readymade Food	3.80	14.05	10.57	3.82
5	Wheat	3.47	37.93	4.08	1.54
6	Electricity Charges	3.44	-9.89	47.87	11.90
7	Wheat Flour	3.43	19.59	15.48	4.89
8	Cotton Cloth	2.84	11.69	9.16	2.64
9	Motor Fuels	2.49	-9.92	40.22	9.08
10	Vegetable Ghee	2.38	17.56	53.00	12.93
Total		45.32			63.94

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 10.9 percent in November 2021.

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

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Oct-21	Nov-21		
A. Ranked by Weighted Contribution					
1	Tomatoes	0.51	-10.24	150.74	20.34
2	Electricity Charges	3.44	5.48	8.32	9.07
3	Vegetable Ghee	2.38	2.20	7.43	8.30
4	Motor Fuels	2.49	8.99	8.76	8.19
5	Fresh Vegetables	2.09	25.09	7.15	5.78
6	Liquefied Hydrocarbons	1.00	11.79	13.45	5.16
7	Marriage Hall Charges	2.25	1.66	7.76	4.69
8	Solid Fuel	4.48	0.77	2.86	3.77
9	Milk Fresh	10.38	1.80	1.12	3.38
10	Potatoes	0.74	9.08	8.23	3.04
Total		29.76			71.72
B. Ranked by Percentage Change					
1	Tomatoes	0.51	-10.24	150.74	20.34
2	Liquefied Hydrocarbons	1.00	11.79	13.45	5.16
3	Woolen Readymade Garments	0.54	0.00	9.11	1.44
4	Motor Fuels	2.49	8.99	8.76	8.19
5	Electricity Charges	3.44	5.48	8.32	9.07
6	Potatoes	0.74	9.08	8.23	3.04
7	Marriage Hall Charges	2.25	1.66	7.76	4.69
8	Vegetable Ghee	2.38	2.20	7.43	8.30
9	Mustard Oil	0.01	8.11	7.23	0.04
10	Fresh Vegetables	2.09	25.09	7.15	5.78
Total		15.45			66.05
C. Ranked by Weights					
1	Milk Fresh	10.38	1.80	1.12	3.38
2	House Rent	8.61	1.33	0.00	0.00
3	Solid Fuel	4.48	0.77	2.86	3.77
4	Readymade Food	3.80	2.04	1.60	2.02
5	Wheat	3.47	5.16	2.32	2.85
6	Electricity Charges	3.44	5.48	8.32	9.07
7	Wheat Flour	3.43	0.94	0.18	0.21
8	Cotton Cloth	2.84	0.18	1.89	1.88
9	Motor Fuels	2.49	8.99	8.76	8.19
10	Vegetable Ghee	2.38	2.20	7.43	8.30
Total		45.32			39.67

Note: Weighted contribution is estimated by multiplying the weights by the price change of an item; this is then reported as a share in MoM change in Rural CPI, which is 3.1 percent in November 2021.

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

Items/ Contributors	Weights	YoY Change		Weighted Contribution (%)	
		Nov-20	Nov-21		
A. Ranked by Weighted Contribution					
1	Vegetable Ghee	2.38	17.56	53.00	12.93
2	Electricity Charges	3.44	-9.89	47.87	11.90
3	Motor Fuels	2.49	-9.92	40.22	9.08
4	Milk Fresh	10.38	7.79	9.62	8.34
5	Liquefied Hydrocarbons	1.00	-3.38	61.45	5.15
6	Wheat Flour	3.43	19.59	15.48	4.89
7	House Rent	8.61	5.20	6.64	4.85
8	Solid Fuel	4.48	11.62	10.35	3.95
9	Readymade Food	3.80	14.05	10.57	3.82
10	Cooking Oil	0.60	15.24	54.88	3.28
11	Fresh Vegetables	2.09	6.25	13.41	3.19
12	Meat	1.71	10.87	18.39	3.11
13	Cotton Cloth	2.84	11.69	9.16	2.64
14	Marriage Hall Charges	2.25	1.44	10.31	1.89
15	Personal Grooming Services	1.54	12.64	12.61	1.86
Total		51.04			80.88
Bottom 15 Contributors					
1	Onions	0.90	-8.79	-40.57	-4.12
2	Potatoes	0.74	78.53	-23.50	-3.81
3	Condiments And Spices	1.49	53.75	-18.02	-3.40
4	Pulse Moong	0.25	25.14	-26.35	-0.64
5	Motor Vehicle Tax	0.02	0.00	-5.56	-0.01
6	Postal Services	0.01	0.00	0.00	0.00
7	Accommodation Services	0.14	0.03	0.00	0.00
8	Newspapers	0.02	2.40	0.00	0.00
9	Garbage Collection	0.01	7.64	8.74	0.01
10	Dessert Preparation	0.01	9.17	7.76	0.01
11	Dental Services	0.02	11.27	7.97	0.01
12	Water Supply	0.06	39.60	1.63	0.01
13	Cleaning And Laundering	0.02	17.06	10.07	0.02
14	Pan Prepared	0.04	15.27	4.21	0.02
15	Major Tools And Equipments	0.03	7.38	10.65	0.03
Total		3.76			-11.87

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

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Oct-21	Nov-21		
A. Ranked by Weighted Contribution					
1	Tomatoes	0.51	-10.24	150.74	20.34
2	Electricity Charges	3.44	5.48	8.32	9.07
3	Vegetable Ghee	2.38	2.20	7.43	8.30
4	Motor Fuels	2.49	8.99	8.76	8.19
5	Fresh Vegetables	2.09	25.09	7.15	5.78
6	Liquefied Hydrocarbons	1.00	11.79	13.45	5.16
7	Marriage Hall Charges	2.25	1.66	7.76	4.69
8	Solid Fuel	4.48	0.77	2.86	3.77
9	Milk Fresh	10.38	1.80	1.12	3.38
10	Potatoes	0.74	9.08	8.23	3.04
11	Wheat	3.47	5.16	2.32	2.85
12	Personal Effects N.E.C.	1.21	1.82	5.44	2.61
13	Readymade Food	3.80	2.04	1.60	2.02
14	Cooking Oil	0.60	2.60	7.02	1.95
15	Cotton Cloth	2.84	0.18	1.89	1.88
Total		41.68			83.03
Bottom 15 Contributors					
1	Chicken	1.46	13.72	-4.41	-2.50
2	Onions	0.90	-14.76	-11.07	-2.42
3	Condiments And Spices	1.49	-3.70	-1.66	-0.84
4	Pulse Moong	0.25	-1.91	-1.34	-0.08
5	Pulse Mash	0.15	2.26	-1.60	-0.05
6	Pulse Gram	0.28	-0.21	-0.42	-0.03
7	Gur	0.15	2.46	-0.28	-0.01
8	Motor Vehicle Tax	0.02	0.00	0.00	0.00
9	Accommodation Services	0.14	0.00	0.00	0.00
10	Newspapers	0.02	0.00	0.00	0.00
11	Postal Services	0.01	0.00	0.00	0.00
12	Garbage Collection	0.01	0.00	0.00	0.00
13	Communication Services	1.65	0.00	0.00	0.00
14	Ice Cream	0.06	0.00	0.00	0.00
15	Water Supply	0.06	0.00	0.00	0.00
Total		6.65			-5.93

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

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Oct-21	Nov-21		
A. Ranked by Weighted Contribution					
1	Tomatoes	0.51	-10.24	150.74	20.34
2	Vegetable ghee	2.38	2.20	7.43	8.30
3	Fresh Vegetables	2.09	25.09	7.15	5.78
4	Milk fresh	10.38	1.80	1.12	3.38
5	Potatoes	0.74	9.08	8.23	3.04
6	Wheat	3.47	5.16	2.32	2.85
7	Readymade Food	3.80	2.04	1.60	2.02
8	Cooking oil	0.60	2.60	7.02	1.95
9	Fresh fruits	1.45	-1.30	4.21	1.46
10	Eggs	0.57	-1.07	6.03	1.33
11	Meat	1.71	0.35	2.03	1.28
12	Tea	1.26	3.50	3.37	1.26
13	Sweetmeat	0.40	1.56	5.41	0.64
14	Milk products	0.96	2.18	2.01	0.55
15	Sugar	2.03	-2.59	0.57	0.40
Total		32.35			54.59
Bottom 15 Contributors					
1	Chicken	1.46	13.72	-4.41	-2.50
2	Onions	0.90	-14.76	-11.07	-2.42
3	Condiments and Spices	1.49	-3.70	-1.66	-0.84
4	Pulse Moong	0.25	-1.91	-1.34	-0.08
5	Pulse Mash	0.15	2.26	-1.60	-0.05
6	Pulse Gram	0.28	-0.21	-0.42	-0.03
7	Gur	0.15	2.46	-0.28	-0.01
8	Ice Cream	0.06	0.00	0.00	0.00
9	Dessert Preparation	0.01	0.00	0.65	0.00
10	Cigarettes	1.24	0.49	0.01	0.00
11	Milk powder	0.11	0.00	0.51	0.01
12	Besan	0.07	0.09	1.05	0.02
13	Pan Prepared	0.04	0.93	1.70	0.03
14	Honey	0.03	4.93	3.41	0.03
15	Nimco	0.08	1.36	1.41	0.03
Total		6.31			-5.81

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

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Oct-21	Nov-21		
A. Ranked by Weighted Contribution					
1	Electricity Charges	3.44	5.48	8.32	9.07
2	Motor Fuels	2.49	8.99	8.76	8.19
3	Liquefied Hydrocarbons	1.00	11.79	13.45	5.16
4	Marriage Hall Charges	2.25	1.66	7.76	4.69
5	Solid Fuel	4.48	0.77	2.86	3.77
6	Personal Effects n.e.c.	1.21	1.82	5.44	2.61
7	Cotton Cloth	2.84	0.18	1.89	1.88
8	Transport Services	1.80	1.11	3.13	1.49
9	Woolen Readymade Garments	0.54	0.00	9.11	1.44
10	Readymade Garments	1.13	1.24	3.81	1.30
11	Washing Soaps, Detergents and	1.70	1.22	2.17	1.09
12	Footware	1.92	0.41	1.95	1.06
13	Woolen Cloth	1.10	0.84	3.17	1.05
14	Drugs and Medicines	1.58	0.79	1.65	0.84
15	Household Equipments	1.28	0.46	1.66	0.68
Total		28.75			44.31
Bottom 15 Contributors					
1	Accommodation Services	0.14	0.00	0.00	0.00
2	Newspapers	0.02	0.00	0.00	0.00
3	Communication Services	1.65	0.00	0.00	0.00
4	Postal Services	0.01	0.00	0.00	0.00
5	Motor Vehicle Tax	0.02	0.00	0.00	0.00
6	Garbage Collection	0.01	0.00	0.00	0.00
7	Water Supply	0.06	0.00	0.00	0.00
8	Education	2.13	0.07	0.00	0.00
9	Communication Apparatus	0.34	0.79	0.00	0.00
10	Mechanical Services	0.36	0.88	0.00	0.00
11	House Rent	8.61	1.33	0.00	0.00
12	Plastic Products	0.08	0.70	0.20	0.01
13	Dental Services	0.02	1.28	1.81	0.01
14	Cleaning and Laundering	0.02	4.34	3.44	0.02
15	Major Tools and Equipments	0.03	0.09	2.94	0.03
Total		13.50			0.06

Table A16: Distribution of Price Changes (YoY) - Selected Urban CPI Items: November 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	Chilies (Green), Ginger (Adrak), Onions, Pulse Moong (Washed), Potatoes, Cardamom Small (Average Quality), Guava (Amrood) (Average Quality), Carrot (Gajar), Kinnu (Average Quality)	Cumin Seed (Zeera) White National 50 Gm Packet, Salt Powdered (National/Shan) 800 Gm Packet, Cardamom Large (Loose) (Average Quality), Fruit Juice Small Packet 250	Custard Powder Rafhan 300 Gm Packet, Cauliflower (Phool Gobhi), Turmeric Powder National 50 Gm Packet, Cucumber (Kheera), Gram Whole Black (Average Quality)	Wheat, Curd, Butter Local Packed 50 Gm, Tinda, Jam-E-Shireen Standard Size (800 MI), Gur (Average Quality), Milk Fresh (Un-Boiled), Beans Red/White (Lobia), Bread Plain (Medium Size), Honey
Alcoholic Beverages & Tobacco	Cigarettes Capstan 20'S Packet,	Cigarettes Gold Leaf 20'S Packet,	Pan Prepared (Sweet With Beetle Nuts),	
Clothing & Footwear	Gents Sandal Bata, Ladies Sandal Bata, Cheetah 50 Size 3-5 Servis,	Chaddar (Wash-N-Wear) (2X2.5 Meter), Women Shalwar Kameez (Average Quality), Georgette (Average Quality), Dopatta Georgette (Average Quality), Pullover Gents (Average Quality), Pullover Gents Oxford/Bonanza, Shoe Repair Full Sole, Pullover Ladies Oxford/Bonanza, Pant Cloth Wash & Wear (Average Quality), Full Pant Boy	Dopatta Cotton (Average Quality), Linen, Ladies (Average Quality), Lawn Printed Gul Ahmed/Al Karam, Vest "Baniyan" For Men Average Quality, Gents Shoes Servis, Tailoring Charges Pant (Men), Tailoring Charges Awami Suit (Male), Awami Suit Gents Wash & Wear (Average Quality), Tailoring	Ladies Sponge Chappal Bata, Shirting (Average Quality), Brassier (Average Quality), Shoe Polish Charges , Socks Nylon Local (Average Quality), School Uniform Boys (Pant & Shirt) 24"/26", Children Shoes Power Lite Bata, School Uniform Girls (Kameez & Shalwar) 24"/26", Dry Cleaning Charges Pant Coat Both, Washing Charges Shalwar Kameez
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,	Charges For Refuse/Waste Collection, Cement Blocks (6"X8"X12"), Painter Wage Rate, Sand (Black Pit), Synthetic Enamel Ici Balti 3.64 Litre, House Rent Combined, Mason Wage Rate, Firewood Whole, Electrician	Plumber Wage Rate, Unskilled Labor Wage Rate, Bajri, Cement (Local) 50 Kg Bag, Electricity Charges Above 700 Units, Electricity Charges 301-700 Units, Electricity Charges Combined, Electricity Charges 51-100 Units, Iron Bars (M.S. Bar)
Furnishing & Household Equip. Maintenance etc		Tube Light Philips 40 Watt, Energy Saver Philips 14 Watt, Bed Sheet Double With Two Pillow Covers (Superior Quality), Bed Sheet Single (Superior Quality), Household Servant Female Part Time, Phenyl Tyfon/Finis 2.75 Litre Bottle, Blanket Single (Sn), Cleanser	Chair Plastic (Chairman) (Average Quality), Readymade Quilt (3 Kg), Refrigerator Dawlance/Pel 10 Cubic Feet Double Door, Cot Iron (Charpai), Robin Blue Liquid 75 MI Bottle, Express Washing Powder 1 Kg Polybag, Sewing Machine (Sn)	Sofa Set Five Seater, Lota Plastic Medium Size (Average Quality), Washing Machine With Spinner (Super Asia Or Similar Brand) (Sn), Central Table Set With Glass Top, Bucket (Balti) Plastic Medium Size, Tea Set Pakistani (China-Ware) Set Of 21 Pieces, Finis 400 MI Bottle, Steel Almirah
Health		Hydriyllin Syrup 120 MI Bottle, Glaxose-D 400 Gm Packet, Sugar Test (Random/Fasting) Charges Of Both, Flagly Tablets 400 Mg, X-Ray (Chest) Charges, Physiotherapist Fee Per Visit, Glucometer, Gynecologist Fee Per Visit	Urine Test (Dr) Charges, Ultrasound Abdominal, Ventolin Tablets 2 Mg, Entox Tablets, Calpol Syrup 100 MI Bottle, Amoxil Capsule 250 Mg, Dental Extraction Fee, Phenergan Syrup 120 MI Bottle, Doctor (Mbbs)	Dettol Medium Bottle, Cost Of Surgery (C-Section), Cac 1000 Tablets Sandoz Bottle, Betnovate-N Ointment 10 Gm Tube, Inderal Tablets 10 Mg, Panadol Tablets Plain, Septtran Tablets, Johar Joshanda Instant (Sachet) Packet, Lederplex Syrup Bottle
Transport		Bus Fare Outside City (Ac), Car Suzuki 800 Cc Without Ac, Motorcycle Service Charges, Car Toyota 1300 Cc Xli, Bus Fare Outside City (Non Ac), Train Fare Business Class Per Person, Mini Bus Fare Minimum Within City, Mini Bus	Bus Fare Minimum Within City, Car Tax 800 Cc To 1500 Cc, Taxi Four Seater Fare, Car Service Charges,	Car Honda Civic Turbo 1.5 Vtec, Train Fare Ac Sleeper Per Person, Bus Fare Maximum Within City, Tire Motorcycle Cd 70 (Back Wheel), Train Fare Ac Lower Per Person, Auto Rickshaw Fare, Suzuki Fare Minimum Within City, Tire Car Mehran Tubeless
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, Cable Charges, Ballpoint Pen Local, Urdu Book Ba/B.Sc, English Book Ba/B.Sc, Mathematics Book Class Ix And X (Text Book Board), Lead Pencil Goldfish	Recreational Park Charges (Minimum Playland Ticket), English Book Class Vi, Laptop Dell/Hp/Acer Core I5, Display (14'-15'), Led Sony/Samsung 32" Colored, Mathematics Book Class Xi	Exercise Book (With Lines) 80 To 100 Pages, Mathematics Book Class V (Text Book Board), Pen Ink Dollar 57 MI Bottle, English Book Class Xi Complete Set, English Book Class Ix And X, Photostat Paper 70 Gm, Urdu Book Class V
Education		Private College Fee First Year, Tuition Fee Private University M.Sc./M.A., Coaching Fee For Class Xi/Xii Science Group, Coaching Fee For Class Ix/X Science Group, Government College Fee	Private Medical College/University Tuition Fee For Mbbs (1st Year),	
Restaurant & Hotels	Government Hostel Accommodation Fee For Intermediate College Per Student,		Pizza Chicken Medium Size (Average Quality), Marriage Hall Charges With Furniture, Chicken Biryani Full/Double, Cooked Daal	Burger With Shami Kabab (Average Quality), Chicken Roast (Full) (Average Quality), Seekh Kabab (Beef) (Average Quality), Bread Tandoori Standard Size
Miscellaneous		Wall Clock Quartz (Average Quality), Electric Hair Straightener (Philips), Face Cream Ponds Medium Size (Cold), Hair Style Charges (At Average Beauty Parlor), Purse Ladies Medium Size	Hair Color (Kala Kola), Toilet Soap Lux 75 Gm, Artificial Jewelry (Locket Set) (Average Quality), Shaving Charges, Hair Cut Charges For Men, Gold Tezabi 24 Carett	Tooth Brush (Shield), Talcum Powder Vicroy/Black Cat Large Size, Shampoo Sun Silk/Pantene 90 MI Bottle, Lipstick Swiss Miss/Medora (Medium), Hair Oil (Kala Kola Hair Tonic), Blade Treet

Table A17: Distribution of Price Changes (YoY) - Selected Rural CPI Items: November 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	Watermelon (Turbooz), Muskmelon (Kharbuza), Lady Finger (Bhindi), Kinnu (Average Quality), Grapes (Angoor) (Average Quality), Ginger (Adrak), Chilies (Green), Onions, Arvi, Pulse Moong (Washed), Potatoes, Chilies Powder Loose, Tinda	Lemon, Cucumber (Kheera), Salt Powder Loose, Sugar Refined, Rice Basmati 385/386, Bananas (Kela) Local, Guava (Amrood) (Average Quality), Powdered Milk Nido 390 Gm Polybag, Pulse Mash (Washed), Suji, Wheat, Tomatoes, Carrot (Gajar)	Chips (Loose), Eggs Farm, Cold Drink (Pepsi/Coca-Cola) 1.5 Liter Bottle, Pulse Gram, Ice Cream Walls Cup (Large Size), Custard Powder Raffan 300 Gm Packet, Almonds (Badam) Kaghazi With Shell (Average Quality), Karela, Tea	Besan, Bread Plain (Medium Size), Beans Red/White (Lobia), Nimko (Loose, Average Quality), Desi Ghee, Cauliflower (Phool Gobhi), Jam-E-Shireen Standard Size (800 MI), Samosa (Vegetable, Average Quality), Gram Whole Black (Average Quality), Biscuit Bakery (Loose, Average Quality)
Alcoholic Beverages & Tobacco		Cigarettes Capstan 20'S Packet, Cigarettes Gold Leaf 20'S Packet, Pan Prepared (Sweet With Beetle Nuts), Tobacco Hukka Twisted	Chewing Tobacco (Niswar),	
Clothing & Footwear		Footware Gents Local (Average Quality),	Dopatta Georgette (Average Quality), Footware Ladies Local (Average Quality), School Uniform Girls (Kameez & Shalwar) 24"/26", Chaddar (Wash-N-Wear) (2X2.5 Meter), Long Cloth, Footware Children Local (Average Quality)	Washing Charges Shalwar Kameez, Lawn Printed (Average Quality), Georgette (Average Quality), Shoe Polish Charges, Tailoring Charges Simple Suit (Female), Pullover Gents (Average Quality), Full Pant Boy Length 24"/26", Underwear Medium Size (Average Quality), Shirting
Housing, Water, Elect, Gas & other Fuels		Water Charges Per House, Bricks New 1St Class,	House Rent Combined, Mason Wage Rate, Painter Wage Rate, Sand (Black Pit), Charges For Refuse/Waste Collection, Plumber Wage Rate, Electrician Charges	Firewood Whole, Coal, Carpenter Wage Rate, Bajri, Kerosene Oil, Cement (Local) 50 Kg Bag, Electricity Charges Above 1000 Units, Electricity Charges 301-1000 Units, Electricity Charges Combined
Furnishing & Household Equip. Maintenance etc.		Cleanser Powder Vim 900 Gm Polybag, Water Cooler 9/10 Litre Plastic Super Quality, Towel Medium Size (2' X 3'), Finis 400 MI Bottle, Refrigerator	Aluminium Cooking Pan (Degchi), Lota Plastic Medium Size (Average Quality), Blanket Single (Sn), Water Set (Omroc) 6 Glass, Plates Steel	Water Pump Golden Monoblock/Donkey 0.5 H.P, Cot Iron (Charpai), Dinner Set Plastic 72 Pieces Super Quality, Sewing Machine (Sn) Without Cover, Match Box
Health	Hydrollin Syrup 120 MI Bottle,	Blood Test (Cp) Charges, Daonil Tablets 5 Mg, Cost Of Surgery (C-Section),	Amoxil Capsule 250 Mg, Physiotherapist Fee Per Visit, Dettol Medium Bottle, Dental Surgeon Fee Per Visit, X-Ray (Chest) Charges	Panadol Tablets Plain, Doctor (Mbbs) Clinic Fee, Inderal Tablets 10 Mg, Cac 1000 Tablets Sandoz Bottle, 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,	Bus Fare Outside City (Non Ac), Tire Motorcycle Cd 70 (Back Wheel),	Mobil Oil (Havoline 20W-50), Tire Car Mehran Tubeless (General), Bicycle, Train Fare Economy Per Person, Motorcycle Honda Cd 70, Hi-Speed Diesel, Petrol Super, Cng, 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, Urdu Books Class Ix And X (Text Book Board), English Books Class Xi Complete Set, Led Sony/Samsung 32" Colored, English Books Class Vi, Lead Pencil Goldfish	Ballpoint Pen Local, Cable Charges, Exercise Book (With Lines) 80 To 100 Pages, 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)		
Restaurant & Hotels	Government Hostel Accommodation Fee For Intermediate College Per Student, Private Hostel Accommodation Fee For Intermediate College Per Student		Pizza Chicken Medium Size (Average Quality), Cooked Daal At Average Hotel, Seekh Kabab (Beef) (Average Quality), Chicken Biryani	Chicken Roast (Full) (Average Quality), Marriage Hall Service Charges With Food (Average Meal), Tea Prepared Ordinary, Cooked Beef At Average Hotel
Miscellaneous		Blade Treet Ordinary (10 No. Packet), Shaving Cream (Touchme Large/Admiral), Artificial Jewelry (Locket Set) (Average Quality), Suitcase	Toilet Soap Lux 75 Gm, Tooth Brush (Shield), Hair Color (Kala Kola), Tooth Paste Colgate 75 Gm,	Gold Tezabi 24 Carett, Shampoo Sun Silk/Pantene 90 MI Bottle, Hair Removing Cream (Eu-Cream) 30MI Tube, Trunk Medium Size (Average Quality)

Table A18: Distribution of Price Changes (YoY) - WPI Items: November 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, Fish Live Fresh or Chilled,	Raw Animal Materials / Wool, Fresh Fruits, Cotton Seeds, Sorghum / Jowar,	Eggs, Poultry, Raw Milk from Bovine Animals, Dry Fruits, Rice, Wheat, Vegetables,	Fuel Wood in Logs, Hides, Skins & Fur Skins, Raw, Unmanufactured Tobacco, Pulses, Maize, Sugar Crops, 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	Sugar Refined, Tobacco Products, Nylon Yarn,	Blankets, Footwears, Mineral Water, Processed Liquid Milk, Chocolate, Sugar Confectionary, Other Food Products, Fruit Juices, Beverages, Milk & Cream in Solid Form, Readymade Garments, Dairy Products N.E.C,	Bed Sheets, Other Leather N.E.C, Woolen Carpets, Dried Fruits & Nuts, Synthetic Carpets, Ice Cream, Coffee & Tea, Oil Cakes, Quilts,	Other Fabrics, Vegetables & Fruit Juice, Leather Without Hair, Other Cereal Flour, Wheat Flour, Towels, Cotton Fabrics, Hosiery Products, Meat of Animals, Blended Yarn, Woven Fabrics, Silk & Reyon Fabrics, Spices,
Other Transportable Goods except Metal Products, Machinery and Equipments	Printing Paper, Hard Board, Dyeing Material, Insecticides,	Matches, Pesticides, Plastic Products,	Other Glass Articles, Bricks, Blocks & Tiles, Timber, Glass sheets,	Ceramics & Sanitary Fixture, Medicines, Paints & Varnishes, Cement, Soaps & Detergents, Auto Tyres, Mobil Oil, Bed Foam, Chemicals, Motor Spirit, Fertilizers, Diesel Oil, Kerosene Oil,
Metal Product Machinery & Equipment	Engines & Motors, Vacuum Pumps, Concrete Mixture,	Radio & Television, Electric Wires, Air Conditioners, Steel Products,	Motor Vehicles,	Lighting Equipments, Fridge, WashM, SewM, Fans, Iron, Bicycles, Tractors, Lathe Machines, Chuff Cutter, Motorcycles, Pipe Fittings, Steel Bar & Sheets, Cultivators,

Table A19: International Commodity Prices/Indices

Commodity/Indices	Jun-21	Nov-20	Oct-21	Nov-21
Energy				
Crude Oil (US\$ per barrel)*	71.8	42.3	82.1	79.9
Energy Index (2010 = 100)	93.1	54.6	122.3	114.6
Food				
Rice (\$/MT)	466.0	489.0	401.0	400.0
Wheat (\$/MT)##	263.5	247.9	..	334.5
Sugar (US cent/ pound)^	17.4	14.1	19.2	19.4
Palm Oil (\$/MT)	1,004.4	917.8	1,310.3	1,348.1
Soybean Oil (\$/MT)	1,518.2	973.9	1,483.5	1,439.6
Non-Food Non-Energy				
Cotton Outlook 'A' Index #^	94.5	77.7	117.4	126.5
Metal Price Index (2010 =	119.0	91.5	130.0	125.2
Copper (\$/MT)	9,631.5	7,068.9	9,829.2	9,728.9
Aluminum (\$/MT)	2,446.7	1,935.3	2,934.4	2,636.5
Iron Ore (\$ cents/dry MT)	214.4	124.4	122.9	96.2
Tin (\$/MT)	32,502.6	18,522.5	37,722.9	39,158.7
Nickel (\$/MT)	17,979.6	15,807.7	19,362.4	19,932.9
Zinc (\$/MT)	2,951.9	2,671.6	3,359.9	3,311.3
Lead (\$/MT)	2,191.0	1,915.6	2,344.8	2,330.0
Uranium (\$/MT)@	32.3	29.7	45.2	45.8
DAP (\$/MT)	604.8	359.6	672.9	726.7
Urea (\$/MT)	393.3	245.0	695.0	900.5

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	
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	106.97	114.16	123.79	135.36	146.79
Aug	107.20	113.91	125.97	136.40	147.87
Sep	107.68	113.56	126.53	138.00	150.43
Oct	108.23	115.26	127.97	139.35	152.16
Nov	108.79	114.88	129.34	140.06	156.14
Dec	109.78	115.58	130.10	140.39	
Jan	110.19	116.31	133.24	140.77	
Feb	110.41	117.79	132.32	143.77	
Mar	110.49	119.98	132.19	144.09	
Apr	111.23	120.44	130.73	145.27	
May	112.32	121.81	131.86	146.20	
Jun	113.40	122.58	133.19	146.14	

Table A21: Urban CPI Data Series Original and Seasonally Adjusted					
Original Series					
Period	FY18	FY19	FY20	FY21	FY22
Jul	107.7	114.9	125.0	134.7	146.4
Aug	107.9	114.6	126.8	135.8	147.1
Sep	108.4	114.5	127.7	137.5	150.1
Oct	109.3	117.0	129.8	139.3	152.6
Nov	110.0	116.9	131.1	140.2	157.0
Dec	110.1	116.6	130.6	139.7	
Jan	110.3	117.1	132.8	139.5	
Feb	110.1	118.1	131.3	142.6	
Mar	110.4	120.3	131.5	143.0	
Apr	111.9	121.3	130.6	144.9	
May	112.5	122.1	131.0	145.2	
Jun	113.3	122.5	131.9	144.5	
Seasonally Adjusted Series					
Jul	107.40	114.68	124.73	134.56	146.28
Aug	107.69	114.39	126.65	135.76	147.11
Sep	108.04	114.18	127.43	137.25	149.80
Oct	108.56	116.22	128.84	138.29	151.51
Nov	109.17	115.97	129.91	138.89	155.50
Dec	110.20	116.61	130.55	139.58	
Jan	110.52	117.33	133.05	139.74	
Feb	110.79	118.72	131.95	143.22	
Mar	111.00	120.85	132.02	143.48	
Apr	111.84	121.18	130.50	144.80	
May	112.93	122.57	131.50	145.77	
Jun	114.00	123.29	132.79	145.63	

Table A22: Rural CPI Data Series Original and Seasonally Adjusted					
Original Series					
Period	FY18	FY19	FY20	FY21	FY22
Jul	106.3	113.3	122.2	136.4	147.3
Aug	106.4	113.0	124.6	136.8	148.3
Sep	107.5	113.0	125.6	139.5	151.7
Oct	109.1	115.2	128.3	142.8	155.2
Nov	109.8	115.0	130.7	144.3	160.0
Dec	109.7	114.7	130.3	142.7	
Jan	109.6	114.7	133.4	142.2	
Feb	109.1	115.7	132.1	143.8	
Mar	109.3	118.2	132.0	144.6	
Apr	110.0	118.9	130.6	145.4	
May	110.3	119.5	131.0	145.3	
Jun	111.4	120.3	132.4	145.2	
Seasonally Adjusted Series					
Jul	106.33	113.38	122.37	136.57	147.55
Aug	106.48	113.19	124.94	137.37	149.02
Sep	107.12	112.63	125.18	139.14	151.38
Oct	107.73	113.81	126.66	140.96	153.13
Nov	108.23	113.23	128.49	141.82	157.12
Dec	109.16	114.03	129.43	141.63	
Jan	109.69	114.78	133.53	142.34	
Feb	109.84	116.39	132.89	144.59	
Mar	109.72	118.67	132.46	145.00	
Apr	110.32	119.32	131.08	145.98	
May	111.42	120.66	132.39	146.86	
Jun	112.50	121.51	133.79	146.91	

Period	FY18	FY19	FY20	FY21	FY22	Average
Jul	100.16	100.11	100.06	100.01	99.98	100.06
Aug	100.10	100.02	99.94	99.87	99.82	99.95
Sep	100.34	100.30	100.26	100.23	100.21	100.27
Oct	100.92	100.92	100.93	100.95	100.96	100.93
Nov	101.06	101.13	101.20	101.26	101.30	101.19
Dec	100.12	100.21	100.27	100.33		100.23
Jan	99.84	99.83	99.85	99.85		99.84
Feb	99.37	99.43	99.48	99.53		99.45
Mar	99.52	99.57	99.62	99.67		99.59
Apr	99.92	99.91	99.89	99.88		99.90
May	99.40	99.38	99.36	99.34		99.37
Jun	99.28	99.22	99.17	99.10		99.19

Period	FY18	FY19	FY20	FY21	FY22	Average
Jul	100.29	100.23	100.17	100.12	100.09	100.18
Aug	100.23	100.16	100.10	100.05	100.00	100.11
Sep	100.31	100.27	100.23	100.21	100.19	100.24
Oct	100.72	100.71	100.71	100.71	100.71	100.71
Nov	100.79	100.83	100.88	100.91	100.94	100.87
Dec	99.89	99.97	100.02	100.07		99.99
Jan	99.78	99.78	99.79	99.80		99.79
Feb	99.40	99.46	99.53	99.57		99.49
Mar	99.48	99.54	99.60	99.66		99.57
Apr	100.09	100.09	100.08	100.07		100.08
May	99.65	99.63	99.61	99.60		99.62
Jun	99.42	99.38	99.32	99.25		99.34

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	99.90	99.80	99.70	99.61	99.55	99.71
Sep	100.39	100.34	100.29	100.26	100.24	100.31
Oct	101.23	101.25	101.28	101.30	101.32	101.27
Nov	101.48	101.59	101.69	101.78	101.85	101.68
Dec	100.48	100.58	100.65	100.72		100.61
Jan	99.91	99.91	99.92	99.92		99.92
Feb	99.34	99.39	99.43	99.46		99.40
Mar	99.57	99.61	99.65	99.69		99.63
Apr	99.66	99.64	99.62	99.58		99.63
May	99.03	98.99	98.97	98.95		98.99
Jun	99.06	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	
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	-0.26	0.67	0.99	1.63	0.44
Aug	0.21	-0.22	1.76	0.77	0.74
Sep	0.44	-0.31	0.45	1.17	1.73
Oct	0.51	1.49	1.14	0.98	1.15
Nov	0.52	-0.33	1.07	0.51	2.62
Dec	0.91	0.61	0.59	0.24	
Jan	0.37	0.63	2.41	0.27	
Feb	0.20	1.27	-0.69	2.13	
Mar	0.08	1.86	-0.10	0.22	
Apr	0.67	0.38	-1.10	0.82	
May	0.98	1.14	0.86	0.64	
Jun	0.96	0.63	1.01	-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	
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	-0.23	0.60	1.17	1.33	0.45
Aug	0.27	-0.25	1.53	0.89	0.57
Sep	0.33	-0.18	0.62	1.10	1.82
Oct	0.48	1.78	1.11	0.76	1.14
Nov	0.56	-0.21	0.83	0.44	2.63
Dec	0.94	0.55	0.49	0.49	
Jan	0.29	0.62	1.92	0.11	
Feb	0.24	1.19	-0.83	2.49	
Mar	0.19	1.79	0.05	0.18	
Apr	0.75	0.28	-1.15	0.92	
May	0.97	1.14	0.77	0.67	
Jun	0.95	0.59	0.98	-0.10	

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	
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	0.14	-0.17	2.10	0.58	1.00
Sep	0.60	-0.50	0.19	1.29	1.58
Oct	0.57	1.05	1.19	1.30	1.16
Nov	0.46	-0.51	1.44	0.61	2.60
Dec	0.86	0.71	0.73	-0.13	
Jan	0.49	0.66	3.17	0.50	
Feb	0.13	1.40	-0.48	1.58	
Mar	-0.10	1.96	-0.32	0.28	
Apr	0.54	0.54	-1.04	0.67	
May	0.99	1.13	1.00	0.60	
Jun	0.97	0.70	1.05	0.03	

List of Figures

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

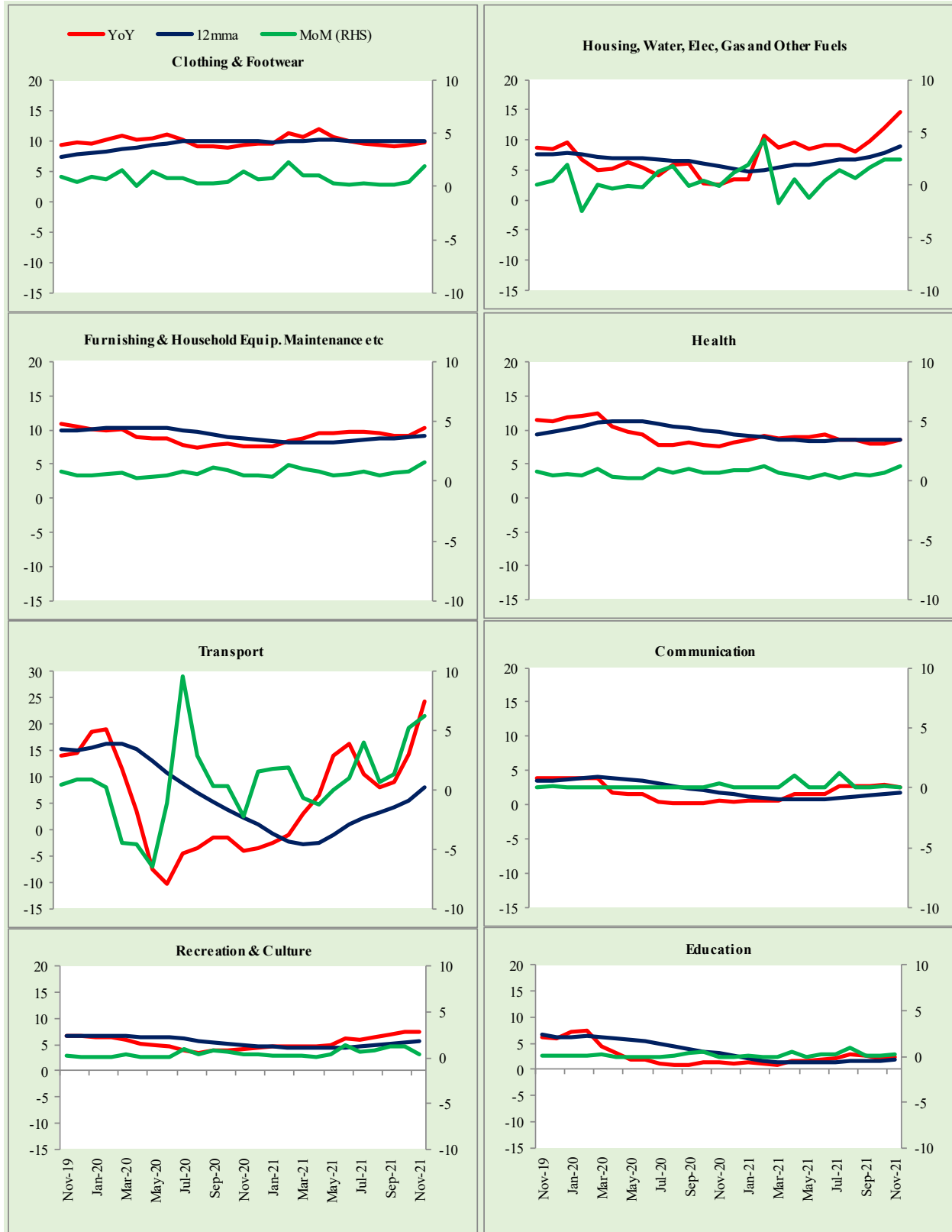


Figure A2: Urban CPI Non-food Inflation (YoY, 12MMA, MoM in percent)

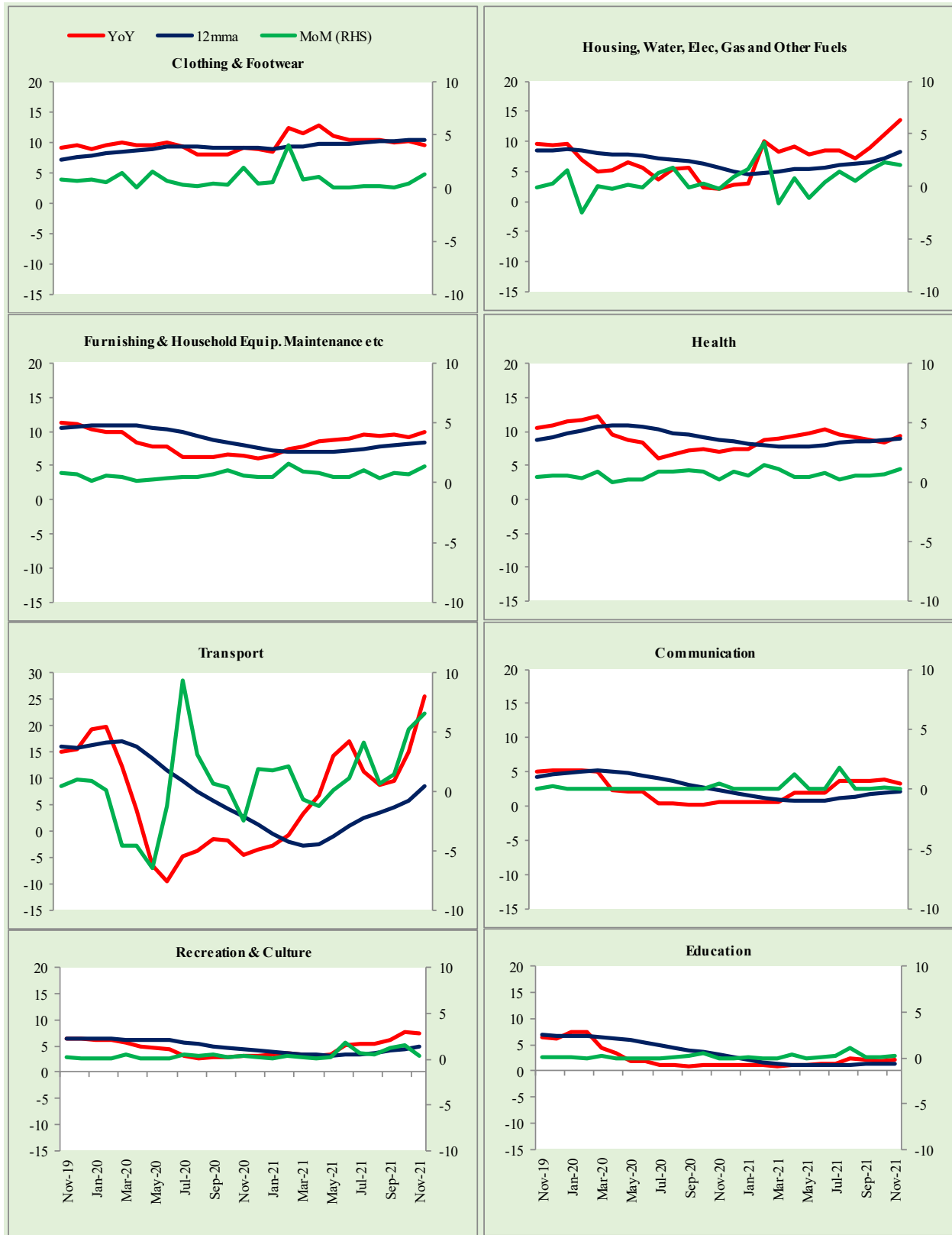
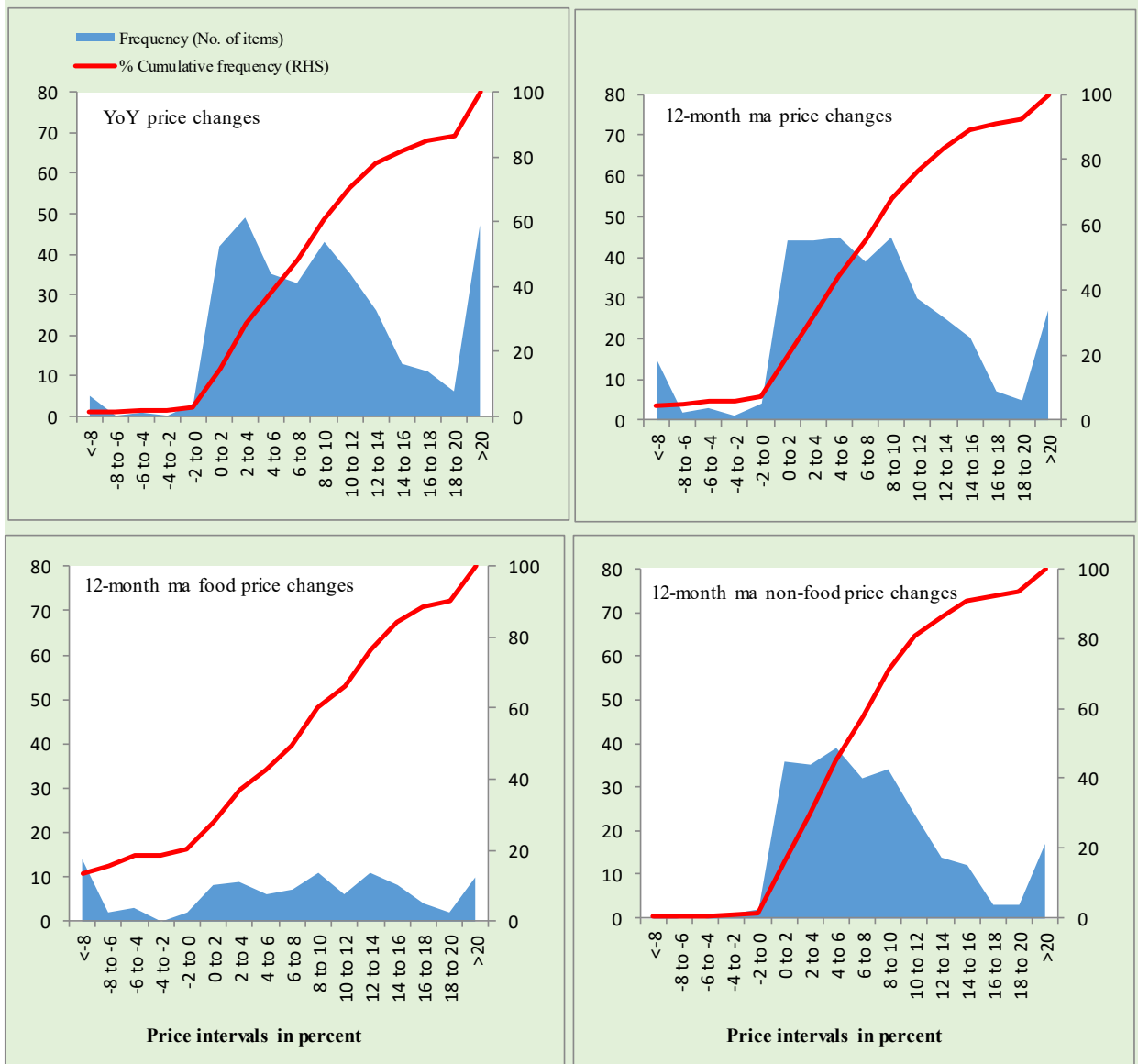


Figure A3: Rural CPI Non-food Inflation (YoY, 12MMA, MoM in percent)

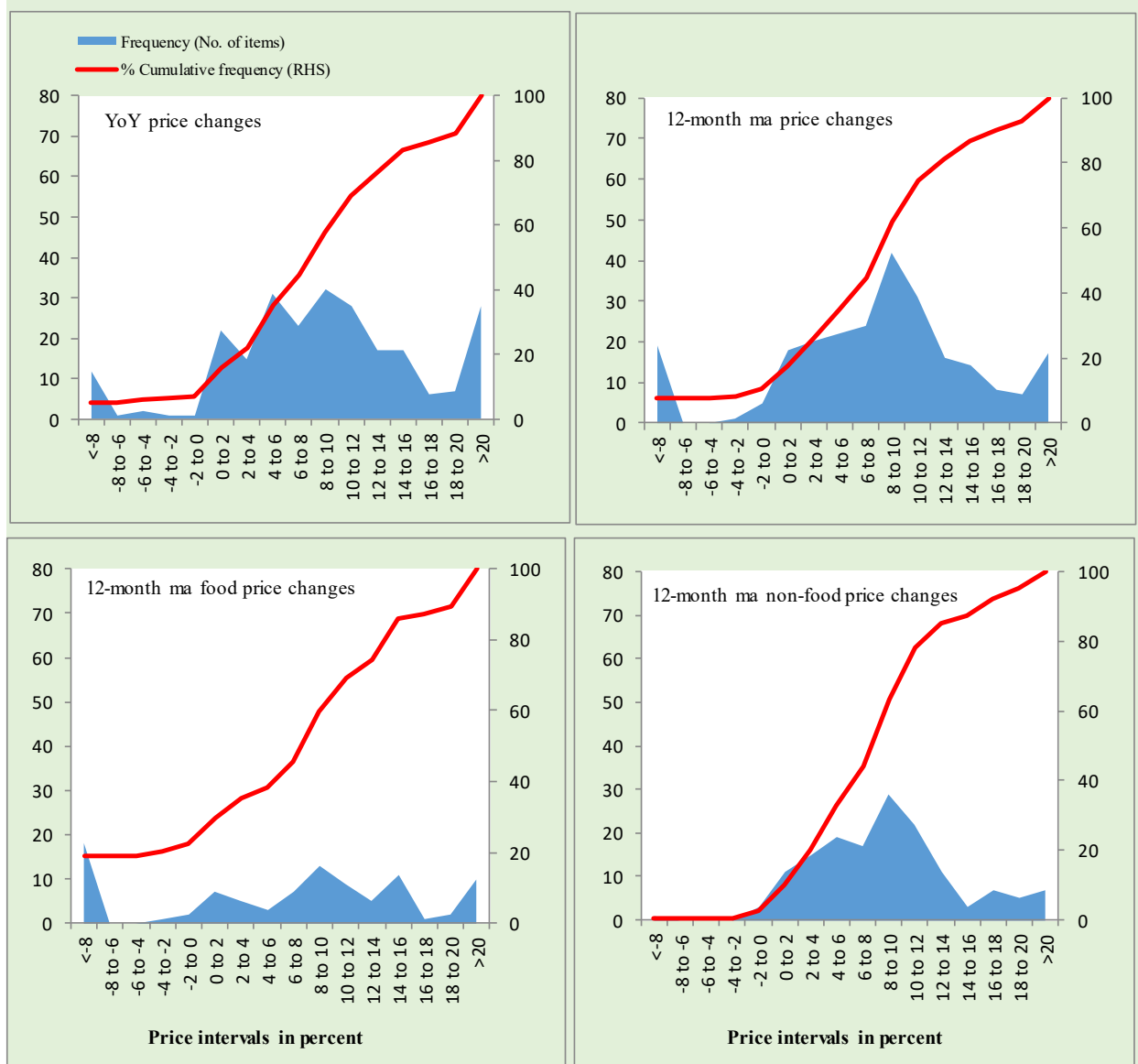


Figure A4: Frequency Distribution of Price Changes of Urban CPI Items (YoY)



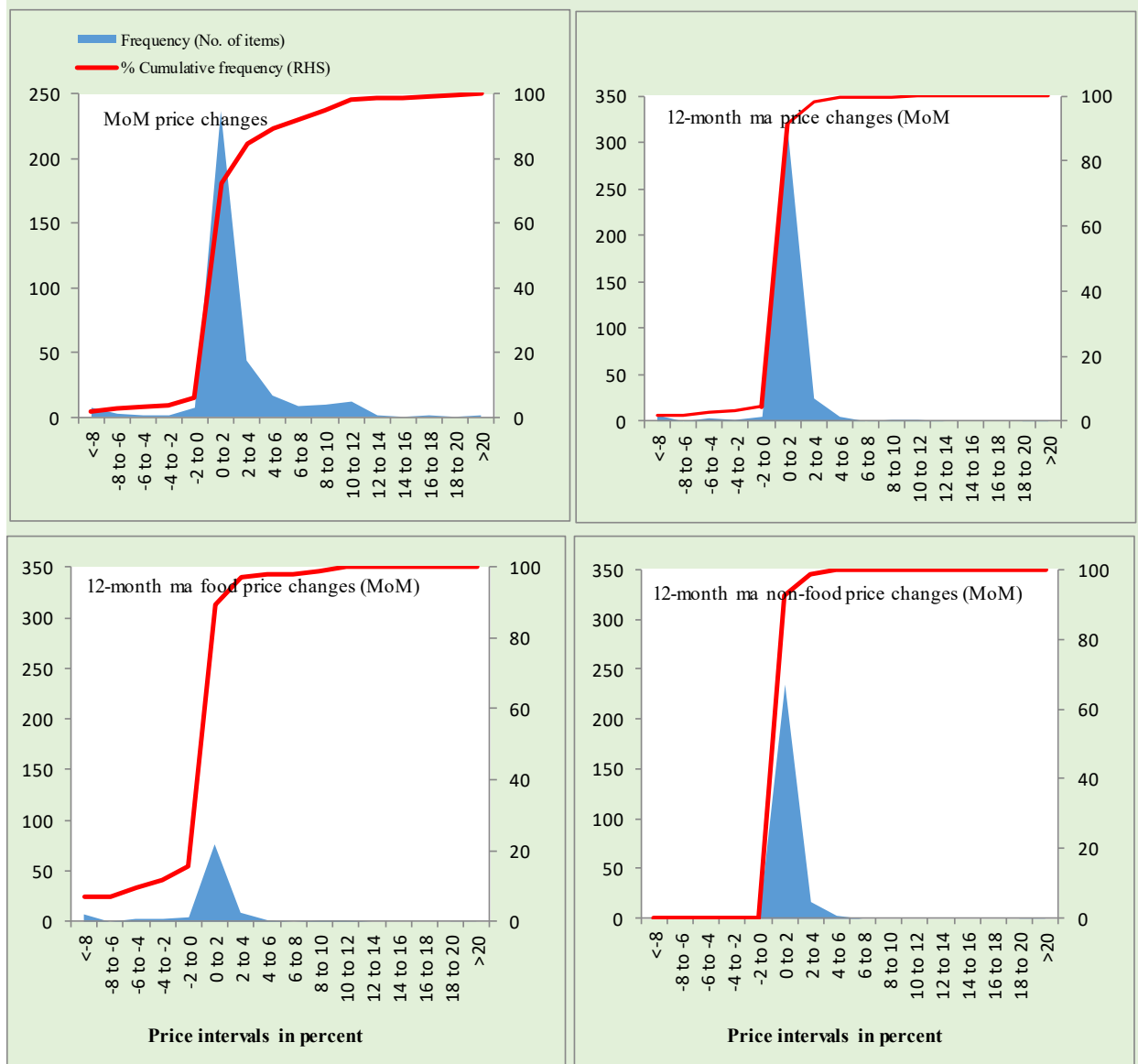
Total Items in CPI Basket (356), Food Items (103) and non-Food Items (253).

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



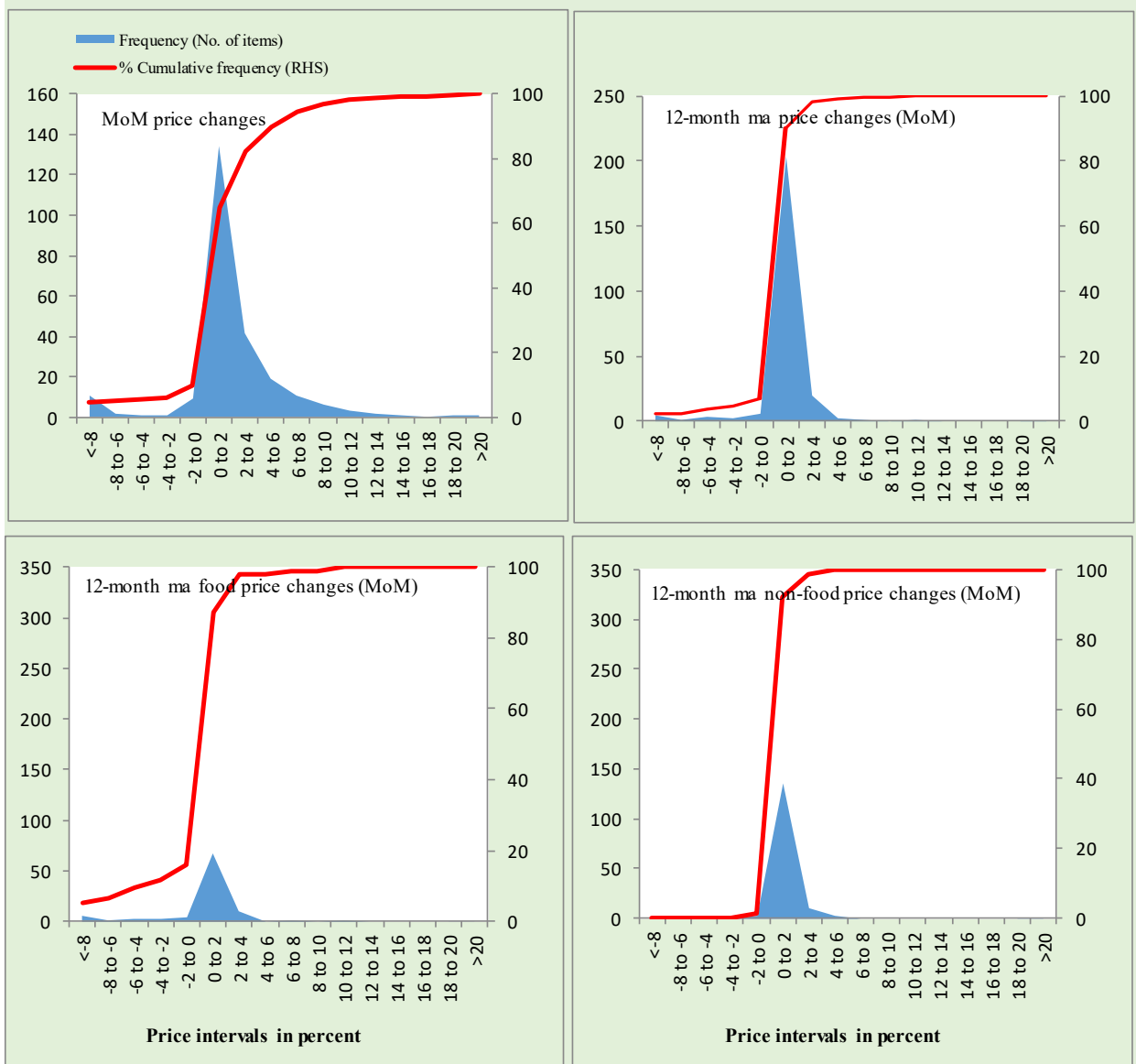
Total Items in CPI Basket (244), Food Items (94) and non-Food Items (150).

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



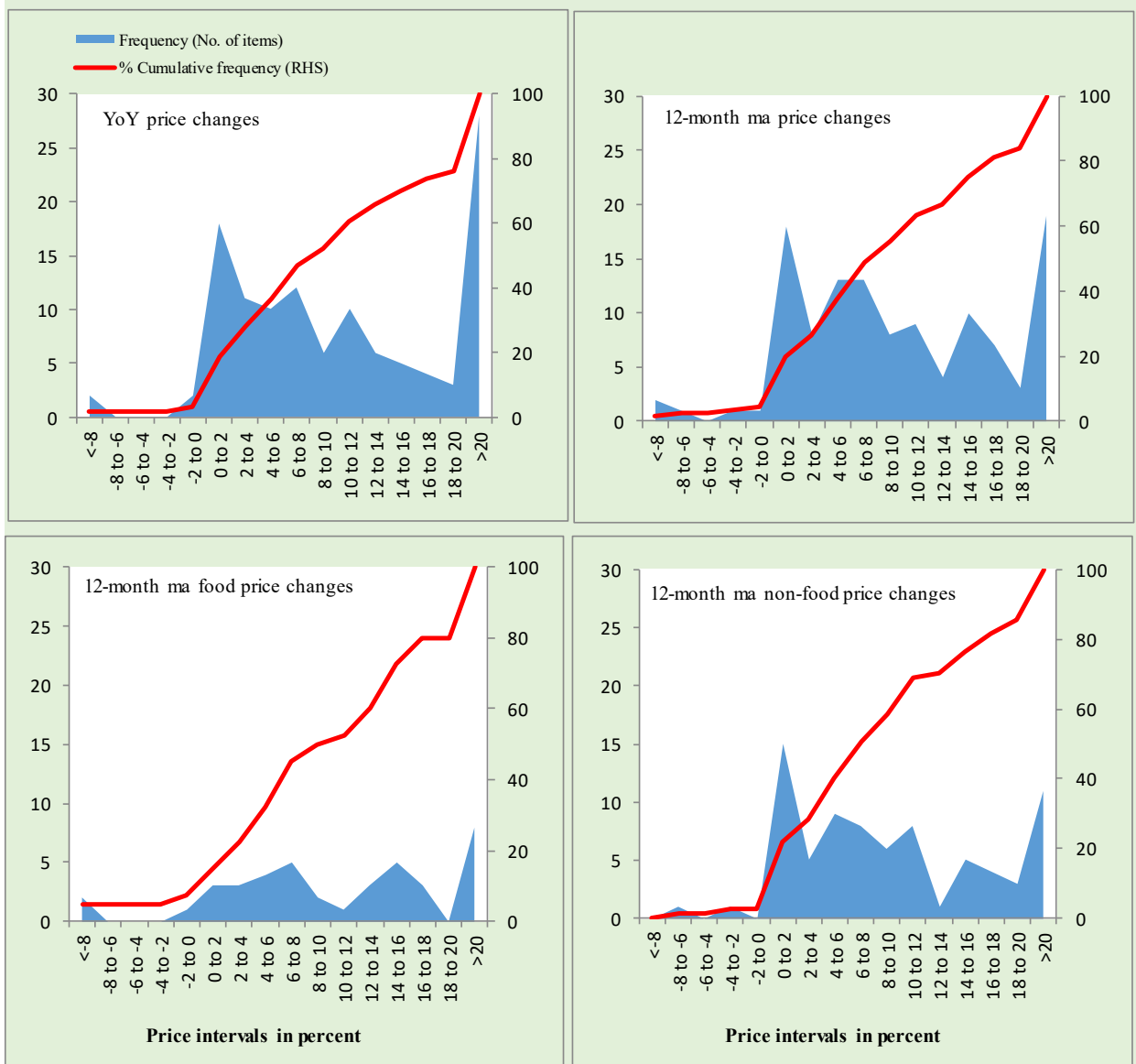
Total Items in CPI Basket (356), Food Items (103) and non-Food Items (253).

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

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

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

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

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

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

reference month

w_i : Weights of i^{th} item

π_{it} : Inflation of i^{th} item

π_t : Overall inflation

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.